Reliance
Industries Limited
CIN # L17110MH1973PLC019786

Ref no.:700/300525/HMD/MoEF&CC **Date: 30.05.2025**

Deputy Director General of Forests (C),
Ministry of Environment, Forest, and Climate Change,
Integrated Regional Office, GandhiNagar A wing- 407 & 409,
Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhi Nagar-382010
Email: iro.gandhingr-mefcc@gov.in

Kind Attention: Inspector general of Forest/Scientist C

Subject: Six monthly compliance reports for RIL Hazira Manufacturing Division (HMD) for the period Oct'24 to March'25.

References:

1. No. J-11011/12/90-IA-II dated 31/01/1992
2. No. J-11011/32/2005- I(A) II - dated 30.06.2005.
3. SEIAA/GUJ/EC/5(e)/259/2011 dated 27.12.2011 and Amendment no. EIA-10-2010-698/1156 dated 06.11.2012
4. SEIAA / GUJ / EC / 1(d) & 7(e) / 3 / 2015 dated 28.01.2015 and its amendment SEIAA /GUJ / EC / 1(d) & 7(e) / 584 / 2016 dated 28.09.2016
5. No. J-1-1011/40/2015-IA-II(I) dated 10.07.2017
6. J-13012/5/2021-IA. I(T) dated 31st Oct 2022
7. J-11011/40/2015-IA II (I) dated 01st Nov 2022

Dear Sir,

Please find attached herewith the condition wise compliance to the Environment Clearances granted to RIL Hazira Manufacturing Division by MoEF&CC and SEIAA, Gujarat (referenced above).

Each Environment Clearance in the attachment is followed by its respective Annexure for easy reference.

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

Thanking you,

Yours truly,
For **RELIANCE INDUSTRIES LTD.**

Dated 30

Shantanu Date
President

Encl.: As above

Half Yearly Compliance Report
2025
01 Jun(01 Oct - 31 Mar)

Acknowledgement

Proposal Name	Environmental Clearance for Petrochemical Complex being set up by Reliance Petrochemicals Ltd./ Reliance Industries Ltd., at Kawas-Hazira Region in Gujarat State.
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED
Village(s)	Mora
District	SURAT

Proposal No.	J-11011/12/90-IA-II
Plot / Survey / Khasra No.	
State	GUJARAT
MoEF File No.	J-11011/12/90-IA-II

Category	Industrial Projects - 2
Sub-District	Chorasi
Entity's PAN	*****5055K
Entity name as per PAN	RELIANCE INDUSTRIES LIMITED

Compliance Reporting Details

Reporting Year 2025

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	Actual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	398.32	398.32
Total	398.32	398.32

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	CCP AND CCPP - POWER	MW	N/A	620	315.4	
2	VINYL CHLORIDE MONOMER (VCM)	Tons per Annum (TPA)	N/A	4,75,000	3,52,902	
3	METAL SALT CATALYST	Tons per Annum (TPA)	N/A	160	132	
4	TIO2 WET	Tons per Annum (TPA)	N/A	4,000	3,560	
5	POLYPROPYLENE	Tons per Annum (TPA)	N/A	5,00,000	4,34,311	
6	POLY VINYL CHLORIDE	Tons per Annum (TPA)	N/A	4,75,000	3,56,532	
7	HCL-PVC PLANT	Tons per Annum (TPA)	N/A	67,992	44,387	
8	SOLVENT (EDC HEAVY END)	Tons per Annum (TPA)	N/A	11,400	2,000	
9	PVC WET RESIN	Tons per Annum (TPA)	N/A	12,166	345	
10	PLANT SWEEP/POLY LUMPS/MACHINE LUMPS	Tons per Annum (TPA)	N/A	54,000	779	
11	POLY ETHYLENE	Tons per Annum (TPA)	N/A	5,50,000	4,74,144	
12	ETHYLENE OXIDE (EO)	Tons per Annum (TPA)	N/A	2,40,000	1,19,638	
13	PP CATALYST	Tons per Annum (TPA)	N/A	300	196	
14	TIO2 DRY	Tons per Annum (TPA)	N/A	1,080	0	
15	MONO ETHYLENE GLYCOL(MEG)	Tons per Annum (TPA)	N/A	7,20,000	4,54,981	
16	CARBON DIOXIDE	Tons per Annum (TPA)	N/A	72,000	28,994	
17	HGR(INCLUDING DEG,TEG,MIX GLYCOL GRADE-1,2,3,4)	Tons per Annum	N/A	78,000	57,349	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	WATER QUALITY MONITORING AND PRESERVATION	2.1 a) Liquid effluent emanating from different plants will be properly treated before discharging and should conform to the standards stipulated by Gujarat pollution control Board /prescribed under the Environment (Protection) Act,1986
PPs Submission: Complied Liquid effluent from HMD complex is treated in Central effluent treatment plant systems, before discharging. Treated effluent is being monitored every month through MoEFCC approved laboratory and the same is conforming to the GPCB standards for the period of Oct 24-Mar 25. Details of the above results can be seen as Annexure-III.		Date: 14/05/2025
2	WATER QUALITY MONITORING AND PRESERVATION	2.1 b) Adequate number of water quality monitoring stations should be set up to assess long term impact in the Tapi river, including on the estuarine zone in consultation with the Gujarat state pollution control Board
PPs Submission: Complied 2 water quality monitoring locations have been setup 100 m upstream and 100 m downstream of treated effluent discharge point on Tapi River estuarine zone. These locations have been set up in consultation with GPCB officials during their visits.		Date: 14/05/2025
3	WATER QUALITY MONITORING AND PRESERVATION	2.1 c) Guard ponds of sufficient holding capacity should be provided to cope with the effluents discharged due to process disturbance. The contributing units shall be immediately shut down and will not be restarted without bringing the system back to normalcy.
PPs Submission: Complied Multiple Holding tanks of sufficient capacity (around 61,000 m3) have been provided to cope with the effluents discharge due to process disturbance. Noted.		Date: 14/05/2025
4	WATER QUALITY MONITORING AND PRESERVATION	2.2 Fresh water requirement for the plant should not exceed 12 MGD. Efforts should be made to reduce the fresh water requirement by adopting adequate steps for reusing /recycling the treated effluents to the extent possible as the water is in short supply in the area. It should be ensured that the requirement of drinking water, irrigation, fisheries and other uses in the area are duly met. The details of water balance at the intake point and apportionment of water for various issues should be provided within 3 months. .
PPs Submission: Complied This condition is now amended by the Ministry permitting withdrawal of 1,85,564 m3/day in ECs issued vide F.No. J-13012/5/2021-IA. I(T) dated 31st Oct2022 and J-11011/40/2015-IA II (I) dated 1st Nov2022. Fresh water consumption during Oct24-Mar25: 1,22,263.19 m3/day (27.17 MGD). The average recycled of treated effluent for the period Oct24-Mar25 is 11,066 m3/day (19.84 percent), thus reducing the freshwater consumption to 20,14,094 m3 during reporting period. State Irrigation dept. has permitted RIL to withdraw the fresh water from Tapi River after considering the requirement. Complied.		Date: 14/05/2025
5	WASTE MANAGEMENT	2.3 a) The characteristics of solid waste and their treatment should be detailed, including identification of the areas to be set aside for this purpose within the boundary limits of the plant.. .

PPs Submission: Complied GPCB in its Consent has authorized the HW generated at HMD with quantity and characteristics as in Annexure VIII. Dedicated storage area known as Central Hazardous Waste Storage Area have been provided with in the plant to store the Hazardous wastes.		Date: 14/05/2025
6	WASTE MANAGEMENT	2.3 b) Solid waste should be recycled to the maximum extent and the details of the same should be submitted, along with other technology details
PPs Submission: Complied Hazardous Waste are recycled / reused to the maximum extent possible. Co-processing is adopted where permitted. During the reporting period is 90.3 percent waste utilize by recycling and co processing. Details of the recycled Hazardous wastes are given in Annexure VIII.		Date: 14/05/2025
7	WASTE MANAGEMENT	2.3 c) Solid waste dumping area should be lined with PVC and made impervious so that ground water is not affected due to leaching and seepage of pollutants. The solid waste disposal plan should be submitted to this Ministry once the process design and technological package has been finalized but not later than June 1992.
PPs Submission: Complied This condition is not applicable as HMD has not developed Solid waste dumping site. Complied.		Date: 14/05/2025
8	WASTE MANAGEMENT	2.3 d) Necessary safety measures such as maintaining of adequate distances between the various storage tanks / vessels, quantity to be stored, pressure, temperature etc. should be taken to confine the impact zone within the plant premises under the worst accident situations. Necessary approval may be obtained from the regulatory authority as per Section 5(2) and 5(3) of the Hazardous Wastes (Management and Handling) Rules, 1989 of the Environment (Protection) Act, 1986.
PPs Submission: Complied Following National, International standards and recommendations of Risk Assessment Studies, safety measures as prescribed like sufficient distance between the tanks, temperature control, pressure gauge, etc., are provided, which ensures that the impact zone is confined within the plant premises under the worst accident situations. Authorization (AWH-130672) under Hazardous Waste Rules have been obtained from GPCB.		Date: 14/05/2025
9	AIR QUALITY MONITORING AND PRESERVATION	2.4 a) The gaseous emissions from various process units should conform to the standards prescribed by the concerned authorities from time to time. At no time the emission levels shall be permitted to go beyond the prescribed standards. In the event of failure of any pollution control systems provided in the unit, the unit should be shut down immediately and should not be restarted until the control measures are rectified to achieve the desired efficiency / standard. In the event of NOX levels in the Surat – Kawas – Hazira area exceeding the prescribed standards, the De-NOX system should be provided.
PPs Submission: Complied Gaseous emissions from various process units for the period Oct24 - Mar25 are conforming to the standards prescribed by GPCB Norms. Please refer detail Emission Monitoring Report attached as Annexure I. During Oct24 - Mar25, emission levels have not exceeded the prescribed standards. Noted. During the period Oct24 - Mar25, no such failure of pollution control equipment has occurred. NOx standards are met at all times and there is no exceedance. There has been no indication regarding the Kawas, Hazira region requiring any such measures. Annexure II indicates the AAQ in the region.		Date: 14/05/2025
10	AIR QUALITY	2.4 b) A minimum of 7 monitoring stations should be set up in tune

	MONITORING AND PRESERVATION	with wind direction as well as where maximum ground level concentration is anticipated. Location of air quality monitoring stations should be decided after modeling exercise and in consultation with the State Pollution Control Board. Monitoring of stack and ambient air quality should be done on a regular basis and data recorded and furnished to the Gujarat Pollution Control Board every three months and to this Ministry every six months, along with the statistical analysis of the same. .
PPs Submission: Complied Location of AAQ stations has been decided based on the mathematical modelling studies carried out by NEERI and in consultation with GPCB officials. An intimation Letter in this regard has been submitted to GPCB. Complied. The results are submitted every month to GPCB and every six months to Regional Office of MoEFCC with statistical analysis. Pl. refer detailed Stack and Ambient Air quality Monitoring Data with statistical analysis as Annexures I and II, respectively.		Date: 14/05/2025
11	AIR QUALITY MONITORING AND PRESERVATION	2.4 c) Only Sulphur free natural gas should be used as fuel. However, LSHS having sulphur content below 1% may be used during emergency, under intimation to the State Pollution Control Board.
PPs Submission: Complied Gas with negligible Sulphur content is being used in the plant. (Sulphur content in natural gas is less than 1 ppm) during reporting period. Sulphur content of LSHS being used in the plant is less than 1 percent. GPCB has already granted Consent for the usage of LSHS as a fuel in the Consent to Operate.		Date: 14/05/2025
12	AIR QUALITY MONITORING AND PRESERVATION	2.4 d) Low NOX burners should be provided in all the furnaces to keep the emissions of NOX to the bare minimum.
PPs Submission: Complied Low NOx burners have been provided which restrict the NOx well below the GPCB norms. During the period of Oct24 - Mar25. NOx values were observed in the range of 11.53 - 133.91 mg/Nm3. Details of NOx emission can be referred at Annexure-I.		Date: 14/05/2025
13	AIR QUALITY MONITORING AND PRESERVATION	2.4 e) Fugitive emissions should be monitored continuously, including hydrocarbons and other organic compounds
PPs Submission: Complied Fugitive emissions of HC and other organic compounds are monitored regularly under Leak Detection and Repair Program by using Photo ionization detector. Detectors / Sensors for detecting HC Leakages are installed at various locations within plants.		Date: 14/05/2025
14	AIR QUALITY MONITORING AND PRESERVATION	2.4 f) All gaseous emissions in the system, including incinerated material shall be taken to the flare system and the flare should be smokeless and non-luminous.
PPs Submission: Complied All gaseous emissions containing hydrocarbons are taken to the flare system through a closed loop system. Total 6 flares are provided in the complex. Efficient flare design and regular maintenance ensures smokeless and non-luminous flame in the Flares.		Date: 14/05/2025
15	MISCELLANEOUS	2.5 The transport of naphtha, ethylene and propylene should be only by pipelines. Effort should be made to transport products through sea / rail / road to the extent possible. Transportation through road should be kept to the bare minimum to avoid any congestion problem.

PPs Submission: Complied Naphtha, ethylene, propylene and other raw materials are brought through sea route at Jetties and SBM developed as part of this Project. From there, these materials are being transported through pipelines. Road transport is minimized.		Date: 14/05/2025
16	Human Health Environment	2.6 Adequate measures should be taken to avoid any occupational diseases likely to be contracted amongst the employees as a result of exposure to the various chemicals, gases, fumes, vapours, dust etc. An Industrial hygiene laboratory may be set up for periodical monitoring of occupational health of the employees. Medical Surveillance of the employees should be done, which should include pre-employment and regular medical examination and record maintained.
PPs Submission: Complied All precautions are taken to avoid any exposure of chemicals to employees to prevent them from contracting any occupational diseases. A well-equipped Occupational Health Centre (OHC) with dedicated laboratory has been established with in the complex. Health surveillance for employees and contract worker is being done on a regular basis and records are maintained. Regular medical examination is once in a year for all employees.		Date: 14/05/2025
17	MISCELLANEOUS	2.7 Full details of technology and processes to be adopted must be provided to this Ministry for examination within a period of one month of the signing of the technology transfer agreement with the Collaborators and the documents are exchanged. The Ministry reserves the right to modify or add conditions in the light of the assessment of the technology in order to ensure cleaner production and adoption of such technologies which are low waste generating and less polluting.
PPs Submission: Complied Details about technology was submitted to the MoEFCC. Noted.		Date: 14/05/2025
18	MISCELLANEOUS	2.8 a) The State Govt. of Gujarat would be responsible for preparation of a comprehensive carrying capacity study of the Hazira area to the satisfaction of the Ministry.
PPs Submission: Complied Noted.		Date: 14/05/2025
19	MISCELLANEOUS	2.8 b) The Project Authority (Reliance petrochemicals Limited / Reliance Industries Limited) on its part would fulfill the obligations if any, to the Government of Gujarat in respect of the carrying capacity study and comply with such recommendations arising out of the study that may relate to the project and which State or Central Government may direct implementation of with or without modification.
PPs Submission: Complied Noted.		Date: 14/05/2025
20	MISCELLANEOUS	2.8 c) Based on the recommendations of the report, additional measures for control of pollution may be prescribed by either the State or Central Government which should be strictly adhered to.
PPs Submission: Complied Noted.		Date: 14/05/2025
21	MISCELLANEOUS	2.9 A comprehensive EIA report covering one year data / and Risk

		Analysis Report should be submitted within 3 months.
PPs Submission: Complied Comprehensive EIA and Risk Assessment Reports have been submitted to Ministry of Environment and Forests.		Date: 14/05/2025
22	GREENBELT	2.10 Green belt of adequate width and density should be provided all around the plant. A detailed green belt development plan taking into account various aspects including attenuation of noise, air pollution, wastewater utilization etc. should be submitted to this Ministry within six months
PPs Submission: Complied Green Belt development plan have been submitted to MoEFCC along with EIA Report in Sept 1992. Green Belt with in Hazira complex is developed as per the plan. Around 123 ha of green cover provided within Hazira Petrochemical complex. Width of Green Belt provided at the periphery is in the range of 30 to 80 meters taking into consideration the noise attenuation and air pollution. Plant species are selected as per CPCB guidelines such as Peltophorum, Acacia, Cassia, Thevetia, Pelto, Tecoma, Exora, Kinjelia, Gulmahor etc.Density maintained is 1000 trees per acre. During the Yr 2024-25 is 7370 Nos saplings have been planted in Green Belt area as gap filling.		Date: 14/05/2025
23	MISCELLANEOUS	2.11 A separate Environmental Management Cell with suitable qualified people to carry out various functions should be set up under the control of Senior Executive who in turn will report directly to the top executive of the organization. The Cell should be created in the beginning itself so that if is fully aware of the control measures provided in the technological packages to be adopted as well as the techniques of the implementation of the same.
PPs Submission: Complied A separate Environment Cell headed by Environment Head with environment qualification and more than 20 years of experience. The cell is supported by qualified Environment professionals (Env Engg). Environment Head report to Site President. The Environment cell has been created since establishment of the plant.		Date: 14/05/2025
24	Risk Mitigation and Disaster Management	2.12 Disaster Management Plan and Emergency Preparedness Plan should be prepared and got approved from the Competent State Authority and submitted to this Department within three months, for meeting any emergency situation arising due to fire and explosion hazards.
PPs Submission: Complied Disaster Management Plan and Emergency Preparedness Plan (DMP and ERP) are in place and approved by competent authority. It has been submitted to MoEFCC within 3 months along with EIA Report.		Date: 14/05/2025
25	MISCELLANEOUS	2.13 Adequate funds should be earmarked for environmental protection measures and these funds should not be diverted for other purposes and year wise expenditure would be reported to this Ministry.
PPs Submission: Complied Sufficient funds are earmarked every year for environment protection measures only. Expenditure during the Yr 2024-25 is Rs.45.997 crore.		Date: 14/05/2025
26	Marine/Coastal	2.14 The project authorities must ensure adherence to the provisions of the Notification dated 19th November 1991 under Section 3(1) and section 3(2)(v) of the Environment (Protection) Act, 1986 and Rules 5(3)(d) of Environment (Protection) Act Rules, 1986, declaring Coastal Stretches as Coastal Regulation Zone (CRZ) and regulating

		activities in the CRZ.
PPs Submission: Complied The project adheres to the various provisions of EP Act, 1986 and EP Rules, 1986.		Date: 14/05/2025
27	MISCELLANEOUS	3. The Ministry reserves the right to revoke the clearance if implementation of any of the conditions as stipulated by this Ministry is not satisfactory. The above conditions may be modified or additional ones may be prescribed after examining and reviewing the comprehensive EIA / Risk Analysis Report to be submitted by the project proponents as indicated under para 2.9 which should be strictly adhered to. Any other conditions imposed or alterations in the existing conditions will be fully implemented by the project authority in a time bound manner.
PPs Submission: Complied Additional conditions have not been added to this EC and no condition has been modified.		Date: 14/05/2025
28	MISCELLANEOUS	4. These conditions will be in force, inter-alia, under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981; The Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules there under.
PPs Submission: Complied We have noted this condition.		Date: 14/05/2025
29	MISCELLANEOUS	5. The state Gov. should set up a monitoring committee to oversee the implementation of the above conditions and should meet once in six month at least.
PPs Submission: Complied Not applicable to us. We are not aware of any such steps taken by State Govt.		Date: 14/05/2025
30	MISCELLANEOUS	6. This supersedes the earlier letter of even number dated 20th June 1991
PPs Submission: Complied We have noted this condition.		Date: 14/05/2025

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	All annexures are combined and attached as an Additional attachment.

Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.

Half Yearly Compliance Report
2025
01 Jun(01 Oct - 31 Mar)

Acknowledgement

Proposal Name	EC for expansion of Petrochemical complex at Hazira at Village Mora in district Surat in Gujarat by M/s Reliance Industries Ltd.
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED
Village(s)	Mora
District	SURAT

Proposal No.	J.11011/32/2005-IA (II)-I
Plot / Survey / Khasra No.	
State	GUJARAT
MoEF File No.	J.11011/32/2005-IA (II)-I

Category	Industrial Projects - 2
Sub-District	Chorasi
Entity's PAN	*****5055K
Entity name as per PAN	RELIANCE INDUSTRIES LIMITED

Compliance Reporting Details

Reporting Year 2025

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	Actual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	398.32	398.32
Total	398.32	398.32

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	POLY VINYL CHLORIDE	Tons per Annum (TPA)	N/A	4,75,000	3,56,532	
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3	HCL-PVC PLANT	Tons per Annum (TPA)	N/A	67,992	44,387	
4	SOLVENT (EDC HEAVY END)	Tons per Annum (TPA)	N/A	11,400	2,000	
5	PVC WET RESIN	Tons per Annum (TPA)	N/A	12,166	345	
6	POLYPROPYLENE	Tons per Annum (TPA)	N/A	5,00,000	4,34,311	
7	POLY ETHYLENE	Tons per Annum (TPA)	N/A	5,50,000	4,74,144	
8	METAL SALT CATALYST	Tons per Annum (TPA)	N/A	160	132	
9	PLANT SWEEP/POLY LUMPS/MACHINE LUMPS	Tons per Annum (TPA)	N/A	54,000	779	
10	TIO2 DRY	Tons per Annum (TPA)	N/A	1,080	0	
11	TIO2 WET	Tons per Annum (TPA)	N/A	4,000	3,560	
12	ETHYLENE OXIDE (EO)	Tons per Annum (TPA)	N/A	2,40,000	1,19,638	
13	HGR(INCLUDING DEG,TEG,MIX GLYCOL GRADE-1,2,3,4)	Tons per Annum (TPA)	N/A	78,000	57,349	
14	CARBON DIOXIDE	Tons per Annum (TPA)	N/A	72,000	28,994	
15	PTA (SEMI SOLID LUMPS)	Tons per Annum (TPA)	N/A	9,328	3,566	
16	PP CATALYST	Tons per Annum (TPA)	N/A	300	196	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	AIR QUALITY MONITORING AND PRESERVATION	The gaseous emissions (SO2, NOx, CO, NMHC, Benzene, 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. 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.
PPs Submission: Complied Gaseous emissions of SO2, NOx, HC, Cl2 and HCl from process units are monthly monitored through MoEFCC approved laboratory and its result indicate conformance to the GPCB prescribed standards. SO2 and NOx also monitored periodically in VCM furnaces as per EPA 4th amendment rules. Pls refer detailed Stack Monitoring report as Annexure-I. During Oct24-Mar25 emission levels have not exceeded the prescribed standards. Noted. During the reporting period, no such failure of pollution control equipment has been observed.		Date: 15/05/2025
2	AIR QUALITY MONITORING AND PRESERVATION	Ambient air quality monitoring stations, (SPM, SO2, NOx and NMHC, Benzene) 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 modeling exercise to represent short term GLCs. Continuous on-line stack monitoring equipment should be installed for measurement of SO2 and NOx. Data on VOC shall be monitored and submitted to the SPCB / Ministry. CPCB shall independently monitor the air quality of the project.
PPs Submission: Complied The site has established 7 AAQ monitoring stations within petrochemical complex based on the mathematical modeling studies carried out by NEERI considering wind direction and the maximum ground level concentration. An intimation letter is submitted to GPCB on 03.06.1992.The values are on 24 hrs. average; however, the NAAQS specifies annual average for comparison. Details of AAQ and CAAQMS data can be referred as Annexure-II. Monitoring network is decided based on the mathematical modelling carried out by NEERI indicating the locations for maximum GLCs. Continuous online stack monitoring analyzers have been provided for measurement of SO2, NOx in all stacks as per CPCB guidelines. VOCs are regularly monitored in the plant through VOC monitors and the data is submitted to GPCB/MoEFCC. Noted.		Date: 15/05/2025
3	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. .
PPs Submission: Complied Fugitive emissions of hydrocarbon (HC) from product storage tanks are monitored on a six-monthly basis under Leak Detection and Repair Program. Detectors for monitoring HC leakages have been installed at strategic locations. Low Sulphur fuel like Natural gas and LSHS is used in the plant to minimize SO2 emission. NG used in the plant is having Sulphur content less than 1 ppm. Sulphur content of LSHS being used in the plant is less than 1percent.		Date: 15/05/2025
4	AIR QUALITY MONITORING AND PRESERVATION	The company shall install online O2 monitor in the furnaces. And boilers shall be operated with minimum excess air for optimal fuel consumption and to minimize NOx emission. Fire stack burners and steam injection system shall be designed for smokeless operation to

		minimize NOx emission. .
PPs Submission: Complied Online O2 monitors are installed in the furnaces to keep track of combustion efficiency. Boilers are operated at minimum excess air and the online O2 monitors in furnaces are used for keeping track of the air/fuel ratio. By controlling the flow of air, NOx generation is minimized. 6 Flare stacks with steam injection system for smokeless operation to minimize NOx emission.		Date: 15/05/2025
5	AIR QUALITY MONITORING AND PRESERVATION	For control of fugitive emissions, the company shall provide for a main flare system and an auxiliary flare system and route all unsaturated hydrocarbons to the flare system. The flare system shall be so designed for smokeless burning. All the pumps and other equipment where there is a likelihood of HC leakages shall be provided with LEL indicators. And also provide for immediate isolation of such equipment, in case of a leakage. The company shall adopt Leak Detection and Repair (LDAR) program for quantification and control of fugitive emissions. .
PPs Submission: Complied A closed loop flaring system is provided at the plant for control of fugitive emissions. Flare stacks have been designed with steam injection system to have smokeless burning. LEL detectors for monitoring HC leakages have been installed at strategic locations. Isolation of leaking equipment is immediately made based on the LEL detector alarm. LDAR program is carried out in each plant on quarterly basis in all plants for quantification and control of Fugitive emissions.		Date: 15/05/2025
6	AIR QUALITY MONITORING AND PRESERVATION	The product loading gantry shall be connected to the product sphere in closed circuit through the vapor arm connected to the tanker. Data on fugitive emissions shall be regularly monitored and records maintained.
PPs Submission: Complied Product loading gantry is connected with respective product tanks like Benzene, Xylene, Toluene, etc., with vapor arm connected to the tanker. The vapors are recovered through vapor recovery system which is installed at Product loading gantry. Fugitive emissions are being regularly monitored through LDAR program and records maintained.		Date: 15/05/2025
7	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.
PPs Submission: Complied Complied, no halogenated HC is sent to the flare. Halogenated organics from VCM plant are incinerated in the incinerator provided at the plant as recovery is not techno-economically feasible. Emission streams containing organic carbon i.e unsaturated hydrocarbons other than halogenated are connected to the existing flares (6 nos).		Date: 15/05/2025
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 chemicals 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 the above should be taken during the detailed design stage of the NCC and intimate to this Ministry.
PPs Submission: Complied		Date:

		Complied Online detectors for VOC measurements have been installed at appropriate locations in the plants based on the properties of chemicals. Around 1674 LEL type detectors for Cl2, CO, EO, NH3, Butadiene, HCl, H2S, H2, O2 etc. and 31 VOC monitors for Butadiene, Benzene, VCM, EDC etc. are installed at respective plant location.	15/05/2025
9	AIR QUALITY MONITORING AND PRESERVATION	The company shall install bag filters to control flue gas emission. Process emissions shall be controlled by scrubbers. Flue gas emissions from the various stacks attached to the boilers, furnace/heaters shall conform to the prescribed standards.	
		PPs Submission: Complied Suitable air pollution control equipment like Bag filters, absorbers, scrubbers, cyclone separator, wet ESP etc., are installed as per process requirement of respective plant to control process emissions. As per consent, flue gas stacks parameters SO2, NOx, PM, HCl, Cl2 and HC are regularly monitored through MoEFCC approved laboratory. Details of Stack Monitoring are attached as Annexure-I.	Date: 15/05/2025
10	WATER QUALITY MONITORING AND PRESERVATION	The additional effluent generation shall not exceed 23330 m3/d (23250 m3/d of process effluent and 80m3/d of domestic effluent). The wastewater generated shall be treated in comprehensive waste water 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 pipeline in Tapi estuary. The company shall provide diffuser at the pipeline for proper dispersion of effluent. The domestic effluent after treatment and conforming to the prescribed standards shall be used for green belt development.	
		PPs Submission: Complied The total effluent discharge quantity got amended to 82,286 m3/day in ECs issued vide F.No. J-13012/5/2021-IA. I(T) dated 31st Oct 2022 and J-11011/40/2015-IA II (I) dated 1st Nov2022. Our average treated effluent discharge rate is 44,702 m3/day including domestic sewage for the period of Oct24 - Mar25 which is well below the permissible limit. Wastewater generated from the individual process units is being treated in central wastewater treatment plant with 7 primary, secondary, and tertiary treatment facilities. Effluent recycling system has been implemented at the plant. Treated effluent is recycled as cooling water make up, DM water production etc. Average effluent recycled for period of Oct24 - Mar25 is 11,066 m3/day (19.84 percent).Total 20,14,094 m3 effluent recycling done during reporting period. The results of treated effluent conform to the prescribed standards. The treated effluent is discharged through the existing marine disposal system in Tapi estuary .Detail of treated effluent quality can be seen as Annexure-III. A multiport diffuser is provided at the end of treated effluent discharge line for proper dispersion of effluent. The domestic effluent generated within the site is treated in the biological section of the effluent treatment plant.	Date: 15/05/2025
11	WASTE MANAGEMENT	For solid waste management, coke from the cracker plant, slop oil, spent oil and spent catalyst shall be sold to authorized re-processors. Organic residues shall be incinerated in a dedicated incineration and ash will be disposed off in secured landfill at BEIL, Ankleshwar.	
		PPs Submission: Complied Saleable Hazardous wastes such as used oil (spent oil), Waste oil (slop oil) and spent catalysts are sold only to authorized re-processors. Cracker plant coke is disposed for Co-processing in cement plants. During the reporting period - Oct24 - Mar25 -Spent Oil sold : 76.99 MT -Slop Oil sold : 60.35 MT -Spent Catalyst Sold : 112.58 MT -Cracker Coke disposed : 17.10 MT Organic residues are disposed mainly for co processing in cement plants. Incinerator ash is disposed in secured landfill of BEIL, Ankleshwar/Dahej as and when generated. During Oct24-Mar25, these waste disposals were as follows: -Organic residues sent for co-processing: 380.1 MT. -Incinerator ash disposed at secured landfill site of BEIL Ankleshwar/ Dahej (TSDF): - Nil	Date: 15/05/2025
12	Statutory compliance	The company shall obtain necessary approval from the State Irrigation Dept. to meet the additional water requirement from the existing canal network	

PPs Submission: Complied Required approval has been obtained from Narmada, Water Resources, water supply and Kalpsar dept of Govt of Gujarat.		Date: 15/05/2025
13	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 As RIL Hazira plant is located near Tapi Estuary due to tidal effect and close proximity to sea, Ground water table is high, and water is saline due to salinity ingress. Hence, we have installed rainwater collection and storage ponds in the plant to reduce water drawl from the weir to that extent. Surface runoff and roof top rainwater collection scheme is implemented at RelPipe plant, POY cooling towers, and Raw Water-2 storm channel. Ground water recharge wells have been provided as CSR initiative in villages.		Date: 15/05/2025
14	GREENBELT	Green belt shall be raised in an area of 63 hectares 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 Around 123 Ha of green cover provided within Hazira Petrochemical complex. Plant species are selected as per CPCB guidelines.		Date: 15/05/2025
15	Human Health Environment	Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
PPs Submission: Complied Occupational Health surveillance for workers is being done on a regular basis and records are maintained as per the Factories Act.		Date: 15/05/2025

General Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	The project authorities must strictly adhere to the stipulations made by the Gujarat State Pollution Control Board and the State Government
PPs Submission: Complied All stipulations made by GPCB are complied with. Please refer Annexure I, II, III regarding monitoring report for the period Oct 2024 to March 2025.		Date: 15/05/2025
2	Statutory compliance	No further expansion or modernization in the plant should be carried out without prior approval of the Ministry of Environment and Forests.
PPs Submission: Complied Noted.		Date: 15/05/2025
3	AIR QUALITY MONITORING AND PRESERVATION	At no time, the emissions should go beyond the prescribed standards. In the event of failures 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.
PPs Submission: Complied		Date:

At no time emissions have gone beyond the prescribed standards during the reporting period Oct24 - Mar25. Noted. During the reporting period Oct24 - Mar25, no such failure of pollution control equipment has occurred.			15/05/2025
4	Noise Monitoring & Prevention	The overall noise levels in and around the plan area shall be kept well within the standards (85dBA) 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, 1989 viz. 75dBA (daytime) and 70 dBA (night time).	
PPs Submission: Complied Noise control measures such as acoustic hoods, enclosures and silencers etc. are provided at high noise generating source in the plant. Maximum Noise level found at periphery of RIL HMD in the range of 44.2 - 69.2 dBA (Leq) during daytime and 42.8-65.5 dBA (Leq) during nighttime within reporting period Oct24-Mar25.			Date: 15/05/2025
5	MISCELLANEOUS	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 Controller of Explosives must be obtained before commission of the project.	
PPs Submission: Complied Provisions of the MSIHC Rules,1989 are being complied Complied			Date: 15/05/2025
6	WASTE MANAGEMENT	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Waste (Management, Handling & Transboundry) Rules,2003. Authorization from the State Pollution Control Board must be obtained for collections / treatment / storage / disposal of hazardous wastes.	
PPs Submission: Complied Hazardous waste generated at the site is managed as per the Authorization granted by GPCB. Complied.			Date: 15/05/2025
7	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 purposes.	
PPs Submission: Complied Adequate funds have been allocated for implementing the conditions Stipulated by the statutory authorities. Recurring expenditure incurred to comply with the conditions stipulated by MoEFCC as well as by GPCB during the Yr 2024-25 is Rs. 45.997 crore. Complied.			Date: 15/05/2025
8	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.	
PPs Submission: Complied Noted Six monthly compliance report is being submitted to MoEFCC, RO, Gandhinagar regularly. Last compliance report was submitted vide our letter (699/25112024/HMD/MoEFCC) dated 25/11/2024 sent through email at iro.gandhingr-iro.gandhingr-mefccatgov.in dated 01.12.2024.			Date: 15/05/2025

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 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 should be forwarded to the Regional office.

PPs Submission: Complied Public has been informed about the Environment clearance through the advertisement in the local newspaper. A copy of advertisement has been submitted to the ministry along with the first six monthly compliance report.	Date: 15/05/2025

10	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 commencing the land development work

PPs Submission: Complied Financial closure and project commencement information already provided in our earlier submission.	Date: 15/05/2025

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	All annexures are attached as an additional attachment.

Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.

Half Yearly Compliance Report
2025
01 Jun(01 Oct - 31 Mar)

Acknowledgement

Proposal Name	EC to Reliance Industries Ltd.for setting up of PTA & PBR plants in the existing petrochemical unit at Hazira manufacturing Division, Vill. Mora, P.O. Bhatha, Surat-Hazira Road, Surat in category 5 of schedule annexed with EIA notification dtd. 14/9/2006
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED
Village(s)	Mora
District	SURAT

Proposal No.	SEIAA/GUJ/EC/5 (e)/259/2011
Plot / Survey / Khasra No.	
State	GUJARAT
MoEF File No.	SEIAA/GUJ/EC/5 (e)/259/2011

Category	Industrial Projects - 2
Sub-District	Chorasi
Entity's PAN	*****5055K
Entity name as per PAN	RELIANCE INDUSTRIES LIMITED

Compliance Reporting Details

Reporting Year 2025

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	Actual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	398.32	398.32
Total	398.32	398.32

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	POLY VINYL CHLORIDE	Tons per Annum (TPA)	N/A	4,75,000	3,56,532	
2	HCL-PVC PLANT	Tons per Annum (TPA)	N/A	67,992	44,387	
3	SOLVENT (EDC HEAVY END)	Tons per Annum (TPA)	N/A	11,400	2,000	
4	POLY ETHYLENE	Tons per Annum (TPA)	N/A	5,50,000	4,74,144	
5	PP CATALYST	Tons per Annum (TPA)	N/A	300	196	
6	METAL SALT CATALYST	Tons per Annum (TPA)	N/A	160	132	
7	PLANT SWEEP/POLY LUMPS/MACHINE LUMPS	Tons per Annum (TPA)	N/A	54,000	779	
8	TIO2 DRY	Tons per Annum (TPA)	N/A	1,080	0	
9	TIO2 WET	Tons per Annum (TPA)	N/A	4,000	3,560	
10	MONO ETHYLENE GLYCOL (MEG)	Tons per Annum (TPA)	N/A	7,20,000	4,54,981	
11	ETHYLENE OXIDE (EO)	Tons per Annum (TPA)	N/A	2,40,000	1,19,638	
12	VINYL CHLORIDE MONOMER (VCM)	Tons per Annum (TPA)	N/A	4,75,000	3,52,902	
13	PVC WET RESIN	Tons per Annum (TPA)	N/A	12,166	345	
14	POLYPROPYLENE	Tons per Annum (TPA)	N/A	5,00,000	4,34,311	
15	HGR(INCLUDING DEG,TEG,MIX GLYCOL GRADE-1,2,3,4)	Tons per Annum (TPA)	N/A	78,000	57,349	
16	CARBON DIOXIDE	Tons per Annum (TPA)	N/A	72,000	28,994	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	AIR QUALITY MONITORING AND PRESERVATION	> Fugitive emission monitoring at regular intervals.
PPs Submission: Complied Fugitive emission monitoring done in PBR and SBR through Leak detection and repair program.		Date: 17/05/2025
2	GREENBELT	> Strengthening / maintain existing green belt.
PPs Submission: Complied Complied.		Date: 17/05/2025
3	WATER QUALITY MONITORING AND PRESERVATION	Fresh water requirement shall not exceed 1,59,314 KLD after the proposed expansion and it shall be drawn from Singapore weir after getting due permission from the Narmada Water Resources, Water supply and Kalpsar Department. No ground water shall be used for the project.
PPs Submission: Complied Our average water withdrawal rate 1,22,263 KLD for the period of Oct24 - Mar25. Approval from Narmada Water Resources, water supply and Kalpasar department is obtained for water drawl from Singapore weir. No ground water is used at the site for this project.		Date: 17/05/2025
4	WATER QUALITY MONITORING AND PRESERVATION	The effluent discharge from the HMD Complex shall not exceed 55,727 KLD after the proposed expansion.
PPs Submission: Complied Our average treated effluent discharge rate, after commissioning of PBR and SBR plant, is 44,702 m3/day for the period of Oct24 - Mar25.		Date: 17/05/2025
5	WATER QUALITY MONITORING AND PRESERVATION	The effluent arising out of the proposed PTA, PBR and SBR plant shall be treated in the HTDS effluent treatment facilities.
PPs Submission: Complied The effluent arising from PBR and SBR plants are treated in HTDS section of the ETP.		Date: 17/05/2025
6	WATER QUALITY MONITORING AND PRESERVATION	For treatment of the effluent from upcoming PTA plant, a new anaerobic pre-treatment facility comprising of new Bio-Digesters + Conditioning Tank, Biogas Holder + Compressor, Chemical House for PR, Equalization Tank, High COD Holding Tank etc. shall be installed. The partially treated effluent from the anaerobic pretreatment section shall be transferred into the Aeration Tank of the existing HTDS effluent section for its further treatment
PPs Submission: Complied This condition is not applicable for the PTA plant mentioned in this EC is not yet established.		Date: 17/05/2025
7	WATER QUALITY MONITORING AND	The existing aerobic treatment facilities shall be up-graded by providing new Bio-tower-1, Aeration Tank-1, Secondary Clarifier-1,

	PRESERVATION	Techno fungi etc. as mentioned in the EIA Report of the project.
PPs Submission: Complied This condition is not applicable for the reporting period as PTA plant mentioned in this EC is not established.		Date: 17/05/2025
8	WATER QUALITY MONITORING AND PRESERVATION	The ETP shall be operated regularly and efficiently so as to achieve the GPCB norms at the outlet.
PPs Submission: Complied The ETP was operated continuously and efficiently during reporting period. Detail Treated Effluent monitoring data can be referred at Annexure-III.		Date: 17/05/2025
9	WATER QUALITY MONITORING AND PRESERVATION	The treated effluent from the HMD Complex shall be discharged into the Tapi estuary through the existing effluent disposal pipeline equipped with multiport diffuser.
PPs Submission: Complied Treated effluent from HMD complex is being discharged into Tapi estuary through existing effluent disposal pipeline equipped with multiport diffuser during reporting period.		Date: 17/05/2025
10	WATER QUALITY MONITORING AND PRESERVATION	Holding Tanks of at least two days storage capacity shall be provided for storage of effluent in case of emergency maintenance of effluent discharge pipeline.
PPs Submission: Complied Multiple Holding tanks of sufficient capacity (approx. 61,000 m3) have been provided for storage of effluents in case of emergency maintenance of effluent discharge pipeline. No emergency maintenance of effluent discharge pipeline carried out during reporting period Oct24 - Mar25.		Date: 17/05/2025
11	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. The unit shall also provide online monitoring system for pH, TDS & TOC parameters at the outlet of the ETP.
PPs Submission: Complied Metering facility is provided at the inlet and outlet of the ETP and records are maintained. Online pH, flow and TOC analyzer are provided at treated effluent discharge line. The effluent is discharged in Tapi Estuary so monitoring of TDS level is not done.		Date: 17/05/2025
12	WATER QUALITY MONITORING AND PRESERVATION	A proper logbook of ETP operation and 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.
PPs Submission: Complied Logbook of ETP operation is maintained and furnished to GPCB as and when asked. Break up of existing treated effluent for the reporting period Oct24 - Mar25 is as below: Treated effluent Recycled to cooling water make up and for DM water generation:11,066 m3/day, Effluent Discharged:44,702 m3/day, Total Effluent quantity:55,768 m3/day		Date: 17/05/2025
13	WATER QUALITY MONITORING AND PRESERVATION	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.
PPs Submission: Complied Performance evaluation by external agencies is being carried out annually through environmental		Date: 17/05/2025

auditor appointed by GPCB and the records are maintained.		
14	WATER QUALITY MONITORING AND PRESERVATION	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.
PPs Submission: Complied Effluent disposal pipeline is being checked regularly by site maintenance department for leakages. No such eventualities happened during reporting period Oct24 - Mar25.		Date: 17/05/2025
15	WATER QUALITY MONITORING AND PRESERVATION	The post project environmental monitoring through the reputed institutes / organizations shall be carried out in order to assess the changes if any in the marine / estuarine environment due to disposal of effluent.
PPs Submission: Complied Post project environment monitoring was carried out by NIO in the year 2014 to assess the impact on estuarine environment due to disposal of effluent.		Date: 17/05/2025
16	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 the GIDC or GPCB or any such authority created for this purposed by the Govt. / GIDC.
PPs Submission: Complied Noted.		Date: 17/05/2025
17	AIR QUALITY MONITORING AND PRESERVATION	Natural gas shall be used as a fuel in the proposed plants.
PPs Submission: Complied Natural Gas is being used as a fuel in PBR plant during reporting period whereas SBR plant does not require any fuel as it has no furnace, heaters, or vaporizer.		Date: 17/05/2025
18	AIR QUALITY MONITORING AND PRESERVATION	All fuel combustion units shall be operated with minimum excess air so that fuel combustion is optimized, and emission of NOx is minimized. Tangential / low NOx burners in all combustion units with online analyzer shall be implemented in the proposed plants.
PPs Submission: Complied All fuel combustion units are operated at minimum excess air. By controlling the flow of air, NOx generation is minimized. The combustion units in the PBR plant is based on advance combustion technology generating low NOx.		Date: 17/05/2025
19	AIR QUALITY MONITORING AND PRESERVATION	For the proposed PTA Plant, air pollution control systems viz. Quench System and Wet Electrostatic Precipitator for PTA Residue Incinerator, High Pressure Catalytic Combustion unit for Turbine Expander (for burning HC/VOC), Scrubbing Systems (Catalytic Combustion, Filtration, Condensation, Multistage Scrubbing), Candle type Bag Filters, Wet Electrostatic Precipitator (WESP), Scrubber for storage Tank Vents etc. shall be provided.
PPs Submission: Complied PTA plant approved in this EC is not yet established.		Date: 17/05/2025

20	AIR QUALITY MONITORING AND PRESERVATION	For the proposed PBR Plant, air pollution control systems viz. Flare Knockout Pot for routing to flare, Wastewater Stripper for Hydrocarbon Recovery, Fume Hoods for exhaust air vent recovery and discharge at safe height and Hydraulic Seal System for toxic components like TEAL etc. shall be provided. The vents connected to the SBR process plant shall be connected to the existing flare.

PPs Submission: Complied In PBR Plant has air pollution control system like flare knockout pot, wastewater stripper, hydraulic seal system, etc. have been provided. SBR process vents are connected to the existing flare through knock out pot installed in plant area.	Date: 17/05/2025

21	AIR QUALITY MONITORING AND PRESERVATION	Process emission like SO2, NOx, PM, VOCs 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.

PPs Submission: Complied Stack emissions at PBR and SBR are monitored monthly through MoEFCC approved laboratory. Summary of results for the period Oct24 - Mar25 are given in Annexure I and results are complying with the norms given by GPCB which indicate that APCE provided in PBR and SBR plants are operating efficiently and effectively.	Date: 17/05/2025

22	AIR QUALITY MONITORING AND PRESERVATION	Stacks / vents of adequate height as per the prevailing norms along with port holes and sampling facilities shall be provided.

PPs Submission: Complied Complied.	Date: 17/05/2025

23	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. In addition to this, the company shall also install online NOx analyzers for the existing HRSG boilers. The real time data sharing shall be worked out in the consultation with the GPCB.

PPs Submission: Complied Online monitoring system for stack emission provided in PBR and SBR Plants with connectivity to CPCB /GPCB server. Online NOx analyzers have already been provided in existing HRSG stacks with real time connectivity to GPCB/CPCB server.	Date: 17/05/2025

24	AIR QUALITY MONITORING AND PRESERVATION	The fugitive emission in the work zone environment shall be monitored. The emission shall confirm 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.

PPs Submission: Complied Workplace monitoring is done periodically for existing facilities including SBR and PBR plant. Storage Tanks in SBR and PBR plants are provided with internal floating roof with flexible double seal.	Date: 17/05/2025

25	AIR QUALITY MONITORING AND PRESERVATION	> Provision of mechanical seals in pumps

PPs Submission: Complied	Date:

Mechanical seals are provided in pumps/ compressors of PBR and SBR plant.		17/05/2025
26	AIR QUALITY MONITORING AND PRESERVATION	> Regular inspection of floating roof seals and proper maintenance of floating roof seals for existing tanks.
PPs Submission: Complied Being complied. Regular inspection and preventive maintenance being done.		Date: 17/05/2025
27	AIR QUALITY MONITORING AND PRESERVATION	> Preventive maintenance of valves and other equipment.
PPs Submission: Complied Being complied. Preventive maintenance is being done regularly.		Date: 17/05/2025
28	AIR QUALITY MONITORING AND PRESERVATION	> Regular skimming of oil from separators / equalization basin in the ETP.
PPs Submission: Complied Skimmers are provided at oil separator and equalization tank in ETP. The separated oil is collected in Slop oil tank.		Date: 17/05/2025
29	AIR QUALITY MONITORING AND PRESERVATION	> Use of high grade gasket material for packing, provision of motor operated valves for critical services such as high vapor pressure components and chemicals.
PPs Submission: Complied High quality gaskets/packings are provided based on chemicals properties. Remote /motor /pneumatic operated valves are provided for critical services.		Date: 17/05/2025
30	AIR QUALITY MONITORING AND PRESERVATION	> Implementation of Leak Detection and Repair (LDAR) program using a portable VOC detection instrument.
PPs Submission: Complied LDAR program is implemented throughout the plant including SBR and PBR using portable VOC detection instruments.		Date: 17/05/2025
31	AIR QUALITY MONITORING AND PRESERVATION	>Monitoring dioxin and furan from the stacks of incinerators at a regular interval to close vigil on such emissions due to burning organo chlorine compounds, if any.
PPs Submission: Complied There is no incinerator in PBR / SBR plant handling halogenated compounds. Dioxin and furan monitoring is done on other plants incinerator (VCM plant and Hazardous waste incinerator) regularly. Latest monitoring done in the months of Feb and March 25.		Date: 17/05/2025
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 L.D. 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.
PPs Submission: Complied Performance evaluation of air pollution control systems by external agencies is being carried out		Date:

annually through environmental auditor appointed by GPCB and reports submitted.		17/05/2025
33	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 within the plant. Location of CAAQMS is fixed by showing site to GPCB official and after getting their concurrence. A letter with respect to this site visit was also submitted to GPCB.		Date: 17/05/2025
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, Handing and Trans boundary Movement) Rules 2008, as may be amended from time to time.
PPs Submission: Complied Hazardous waste generated from the PBR and SBR Plant is being managed as per the Hazardous waste and Other Waste (Management and Transboundary Movement) Rules, 2016 and authorization received from GPCB.		Date: 17/05/2025
35	WASTE MANAGEMENT	Authorization from the GPCB must be obtained for collection / treatment / storage disposal of hazardous wastes.
PPs Submission: Complied Authorization for Hazardous wastes disposal is obtained from GPCB for SBR and PBR plants.		Date: 17/05/2025
36	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 Hazardous waste from SBR and PBR plant are stored in Central Hazardous Waste Storage Area which is developed as per CPCB guideline with impervious flooring, leachate collection facility and rain protection shelter.		Date: 17/05/2025
37	WASTE MANAGEMENT	Spent Catalyst (Palladium or Carbon), Alumina Desiccant, Rubber Gel, Butadiene Popcorn Polymer, used oil shall be sold only to the registered recyclers.
PPs Submission: Complied Spent catalyst and used oil is sold to offsite recyclers/ re-processors having valid CCA of SPCB. Rubber Gel and Butadiene Popcorn Polymer (Furnace reactor residues and debris) are sent for coprocessing and incinerated in hazardous waste incinerator respectively. Alumina desiccants are non-hazardous waste and sold to recyclers.		Date: 17/05/2025
38	WASTE MANAGEMENT	ETP sludge, Incinerator Ash etc. shall be sent to the secured landfill site for disposal
PPs Submission: Complied ETP sludge and incinerator ash of hazardous wastes incinerator are disposed at secured landfill site of Bharuch Enviro Infrastructure Limited (BEIL), Ankleshwar/Dahej and M/s. Shesh Enviro Infra Pvt. Ltd. (SEIPL) , Saykha.		Date: 17/05/2025
39	WASTE MANAGEMENT	Oily cotton rags shall be either incinerated or sent to the secured landfill site for disposal depending on its characteristics.

PPs Submission: Complied Oily cotton rags generated from entire plant including SBR and PBR are disposed as per Authorization of GPCB.		Date: 17/05/2025
40	WASTE MANAGEMENT	Discarded containers / barrels / bags / liners shall be either reused or sold only to the authorized recyclers after decontamination.
PPs Submission: Complied Each plant including SBR and PBR has developed dedicated drum decontamination facility. Discarded containers / barrels generated from respective plants get decontaminated (Labelling done on containers) and sold to actual users as per GPCB directives.		Date: 17/05/2025
41	WASTE MANAGEMENT	The company shall further explore the possibilities and strive for reuse of hazardous wastes in co-processing.
PPs Submission: Complied M/s RIL Hazira is sending hazardous as well as nonhazardous waste to M/s Ambuja Cement Ltd Kodinar, Gujarat for co-processing 416.37 MT of Hazardous waste sent for co-processing from RIL Hazira to M/s Ambuja cement Ltd. during reporting period.		Date: 17/05/2025
42	MISCELLANEOUS	Provisions of the Manufacture, Storage & Import of Hazardous Chemicals Rules, 1986 & Factories Act, 1948 shall be strictly compiled with
PPs Submission: Complied Complied.		Date: 17/05/2025
43	Risk Mitigation and Disaster Management	Recommendations made in the Risk Assessment Study Report submitted by the project proponent shall be implemented.
PPs Submission: Complied All recommendations made in the risk assessment are complied with.		Date: 17/05/2025
44	Risk Mitigation and Disaster Management	All necessary precautionary measure shall be taken to avoid any kind of accident during storage and handling of toxic / hazardous chemicals.
PPs Submission: Complied 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 process areas and flammable materials. Level indicators, trips and alarm systems. Adequate Fire protection systems are provided.		Date: 17/05/2025
45	MISCELLANEOUS	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.
PPs Submission: Complied All materials are stored only in required quantities matching with the production capacities and necessary permissions from PESO (Chief controller of explosive (CCOE)) Nagpur and Directorate Industrial safety and Health, Gujarat has been obtained for the same.		Date: 17/05/2025
46	Risk Mitigation and Disaster Management	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.

PPs Submission: Complied Hazardous chemicals are stored only as per the requirement matching with the production capacities. Necessary precautions are taken for safe storage / handling of hazardous / toxic chemicals as detailed in point no. 35. Hazardous chemical storage quantities are maintained only in minimum quantity as per requirement. The chemicals are stored in tanks of optimum size.		Date: 17/05/2025
47	MISCELLANEOUS	During material transfer, spillages shall be avoided and garland drain be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.
PPs Submission: Complied Dedicated drainage network has been established in PBR and SBR plants to avoid mixing of plant effluent with storm water.		Date: 17/05/2025
48	MISCELLANEOUS	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.
PPs Submission: Complied Proper safety mechanisms including level indicators, level alarms, bund/dyke walls are provided on the storage tanks to avoid leakages / spillages and will be complied for upcoming facilities. Raw materials from the storage tanks are transferred to the reactors in an automated manner with a closed loop system to avoid any manual exposure.		Date: 17/05/2025
49	Human Health Environment	Tie up shall be done with nearby health care unit for seeking immediate medical attention in the case of emergency, regular medical checkup of the workers and keeping its record etc
PPs Submission: Complied Complied.		Date: 17/05/2025
50	MISCELLANEOUS	Personal Protective Equipments shall be provided to workers and its usage shall be ensured and supervised.
PPs Submission: Complied Use of PPEs is compulsory for employees and contractors. This is being ensured regularly.		Date: 17/05/2025
51	MISCELLANEOUS	First Aid Box and required antidotes for the chemicals used in the unit shall be made readily available in adequate quantity.
PPs Submission: Complied Complied.		Date: 17/05/2025
52	MISCELLANEOUS	Training shall be imparted to all the workers on safety and health aspects of chemicals handling.
PPs Submission: Complied The chemical handling related safety and health training is imparted to all workers. 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. All RIL Hazira employees are imparted safety training through induction and refresher training on safe work practices, safe chemical handling and use of PPEs.		Date: 17/05/2025
53	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. Pre-employment and periodical medical examination is carried out by OHC on a regular basis and records are maintained as per the Gujarat Factories Act and Rules.		Date: 17/05/2025
54	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.		Date: 17/05/2025
55	MISCELLANEOUS	Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.
PPs Submission: Complied Complied.		Date: 17/05/2025
56	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: > Selection of any new plant equipment shall be made with specification of low noise levels.
PPs Submission: Complied These measures are ensured in PBR and SBR Plants by addressing the requirements during the design phase itself. Low noise generating equipment have been selected in the design stage itself.		Date: 17/05/2025
57	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 meets the regulatory norms.		Date: 17/05/2025
58	Noise Monitoring & Prevention	> Regular maintenance of machinery and vehicles shall be undertaken to reduce the noise impact.
PPs Submission: Complied Regular maintenance of machinery and vehicles is undertaken.		Date: 17/05/2025
59	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 enclosures are provided wherever required.		Date: 17/05/2025
60	Noise Monitoring & Prevention	> Employees shall be provided with ear protection measures like earplugs or earmuffs
PPs Submission: Complied PPEs are mandatory for use by everyone working in high noise areas.		Date: 17/05/2025
61	Noise Monitoring & Prevention	> Proper oiling, lubrication and preventive maintenance shall be carried out of the machineries and equipments to reduce noise

		generation.
PPs Submission: Complied Regular maintenance, oiling, lubrication of machinery and vehicles is undertaken to reduce noise generation.		Date: 17/05/2025
62	Noise Monitoring & Prevention	> Construction equipment generating minimum noise and vibration shall be chosen.
PPs Submission: Complied Units are already commissioned.		Date: 17/05/2025
63	Noise Monitoring & Prevention	> Ear plugs and / muffs shall be made compulsory for the construction workers working near the noise generating activities/ machines / equipment.
PPs Submission: Complied Units are already commissioned.		Date: 17/05/2025
64	Noise Monitoring & Prevention	> Vehicles and construction equipment with internal combustion engines without proper silencer shall not be allowed to operate.
PPs Submission: Complied Units are already commissioned.		Date: 17/05/2025
65	Noise Monitoring & Prevention	> Construction equipment meeting the norms specified by EP Act, 1986 shall only be used.
PPs Submission: Complied Units are already commissioned.		Date: 17/05/2025
66	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 generators are being used in the site.		Date: 17/05/2025
67	Noise Monitoring & Prevention	> Noise levels shall be reduced by the use of adequate mufflers on all motorized equipment
PPs Submission: Complied Adequate mufflers as required, are provided on all motorized equipment.		Date: 17/05/2025
68	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 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 within the plant. The ambient noise level monitoring is being carried out regularly. Maximum Noise level found at periphery of RIL HMD in the range of 44.2 to 69.2 dBA (Leq) during daytime		Date: 17/05/2025

and 42.8 to 65.5 dBA (Leq) during nighttime within reporting period Oct24toMar25. Noise levels are found well with-in the stipulated norms. Workplace noise levels are monitored and required precautions are taken to avoid exposure.		
69	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 is one of the basis of design and devices have been provided in the plant like variable frequency drives etc.		Date: 17/05/2025
70	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 Energy audit done by third party for existing facilities including SBR and PBR plants and the recommendations are implemented.		Date: 17/05/2025
71	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 approval stage.		Date: 17/05/2025
72	ENERGY PRESERVATION MEASURES	The transformers and motors shall have minimum efficiency of 85%.
PPs Submission: Complied Transformers have efficiency over 85percent.		Date: 17/05/2025
73	ENERGY PRESERVATION MEASURES	Variable frequency drives shall be installed.
PPs Submission: Complied VFDs are installed in the PBR and SBR plants.		Date: 17/05/2025
74	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.
PPs Submission: Complied Energy conservation schemes are being implemented.		Date: 17/05/2025
75	ENERGY PRESERVATION MEASURES	Energy saving practices as follows shall be practiced: > Constant monitoring of energy consumption and defining targets for energy conservation.
PPs Submission: Complied Departmental level targets have been fixed and energy consumption monitored against those targets.		Date: 17/05/2025
76	ENERGY PRESERVATION MEASURES	> Adjusting the settings and illumination levels to ensure minimum energy used for desired comfort level.

PPs Submission: Complied Being complied. LED bulbs are also used for lighting.		Date: 17/05/2025
77	ENERGY PRESERVATION MEASURES	> Use of solar cells for lighting
PPs Submission: Complied Being considered.		Date: 17/05/2025
78	ENERGY PRESERVATION MEASURES	> Use of solar water heater for canteen & washing area
PPs Submission: Complied Already installed wherever possible.		Date: 17/05/2025
79	ENERGY PRESERVATION MEASURES	> Proper load factor shall be maintained by the unit.
PPs Submission: Complied Being complied.		Date: 17/05/2025
80	ENERGY PRESERVATION MEASURES	> 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.		Date: 17/05/2025
81	ENERGY PRESERVATION MEASURES	> Use of electronic ballast to save energy
PPs Submission: Complied Being complied.		Date: 17/05/2025
82	ENERGY PRESERVATION MEASURES	> Automatic switching system for lighting & water tank pumping shall be used
PPs Submission: Complied Automatic switching system for lighting are provided at various areas of plant as well as at washrooms.		Date: 17/05/2025
83	ENERGY PRESERVATION MEASURES	> To the maximum extent possible and technically feasible, energy efficient equipment like motors, pumps, air conditioning systems shall be selected
PPs Submission: Complied Being complied.		Date: 17/05/2025
84	ENERGY PRESERVATION MEASURES	> Gravity flow shall be preferred wherever possible to save pumping energy
PPs Submission: Complied It is always thought of while taking any decision in this regard.		Date: 17/05/2025
85	ENERGY PRESERVATION	> Promoting awareness on energy conservation

	MEASURES	
PPs Submission: Complied RIL Hazira plant has 59 Nos BEE certified energy professionals.		Date: 17/05/2025
86	ENERGY PRESERVATION MEASURES	> 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 dept.		Date: 17/05/2025
87	WASTE MANAGEMENT	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
PPs Submission: Complied We have adopted World class technology, which minimizes wastes and gives maximum energy efficiency. RIL Hazira plant has carried out CP assessment by Gujarat Cleaner Production Cell. GCPC has issued certificate.		Date: 17/05/2025
88	WASTE MANAGEMENT	The company shall undertake following waste minimization measures. a. Metering and control of quantities of active ingredients to minimize waste b. Reuse of by-products from the process as raw materials or raw materials substitutes in other process. c. Use of automated and enclosed filling to minimize spillages d. Use of close feed system into batch reactors. e. Dry cleaning / mopping of floor instead of floor washing f. Use of high-pressure hoses for cleaning to reduce wastewater generation. g. Regular preventive maintenance for avoiding leakage, spillage etc.
PPs Submission: Complied All these points are being done as a process / operation requirement.		Date: 17/05/2025
89	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 the GIDC / local bodies / GPCB and submit an action plan of plantation for next three years to the GPCB.
PPs Submission: Complied Complied. Around 123 ha of green cover provided within Hazira Petrochemical complex. As per the request of village sarpanch, plantation has already been carried out in Junagam, Damka, Mora villages. The initiative is taken up as CSR activity on request from villages.		Date: 17/05/2025

General Conditions

Sr.No.	Condition Type	Condition Details
1	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 During the period Oct24 - Mar25, no such failure of pollution control equipment has been observed.		Date:

			17/05/2025
2	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 Complied.			Date: 17/05/2025
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.			Date: 17/05/2025
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.			Date: 17/05/2025
5	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.			Date: 17/05/2025
6	MISCELLANEOUS	The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.	
PPs Submission: Complied Noted.			Date: 17/05/2025
7	Statutory compliance	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 Noted.			Date: 17/05/2025
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 diverted for any other purpose.	

PPs Submission: Complied Adequate funds have been allocated for implementing the conditions Stipulated by SEIAA/GPCB. Recurring expenditure incurred for the HMD complex to comply with the conditions stipulated by MoEFCC / SEIAA as well as by GPCB during the Yr 2024-25 is Rs. 45.997 crore. Noted.		Date: 17/05/2025
9	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 each of the same shall be forwarded to the concerned Regional Office of the Ministry.
PPs Submission: Complied The public was informed by giving public notice in Gujarati and English newspaper.		Date: 17/05/2025
10	Statutory compliance	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.
PPs Submission: Complied Six monthly compliance report is being submitted to MoEFCC,RO,Gandhinagar regularly. Last compliance report was submitted vide our letter (699/25112024/HMD/MoEFCC) dated 25/11/2024 sent through email at iro.gandhingr-mefccatgov.in dated 01.12.2024		Date: 17/05/2025
11	Statutory compliance	The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.
PPs Submission: Complied All stipulations made by GPCB are complied with. Please refer Annexure I, II, III regarding monitoring report for the period Oct 2024 to March 2025.		Date: 17/05/2025
12	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 date of start of the project.
PPs Submission: Complied Financial closure and project commencement information already provided in our earlier submission.		Date: 17/05/2025
13	MISCELLANEOUS	The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.
PPs Submission: Complied Noted.		Date: 17/05/2025
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) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

PPs Submission: Complied Noted.		Date: 17/05/2025
15	MISCELLANEOUS	The Environmental Clearance is valid for five years from the date of issue
PPs Submission: Complied Noted.		Date: 17/05/2025

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	All Annexures are attached as an additional attachment.

Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.

Half Yearly Compliance Report
2025
01 Jun(01 Oct - 31 Mar)

Acknowledgement

Proposal Name	Environment & CRZ clearance for the project-M/s Reliance Industries Ltd. for setting up of a coal based Captive Cogeneration Power Plant (CCPP) of 4 X 90 MW (360 MW) within the premises of Hazira Manufacturing Division (RIL-HMD) and associated Coal Jetty with a capacity of handling 3.5 MMTPA of coal & limestone in the Tapi estuary at Village Mora, Ta. Chorasi, Dist. Surat in category 1(d)& 7(e) respectively of the schedule annexed with EIA Notification dtd.14/09/2006
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED
Village(s)	Limla (CT)
District	SURAT

Proposal No.	SEIAA/GUJ/EC/1(d)&7(e)/3/2015
Plot / Survey / Khasra No.	
State	GUJARAT
MoEF File No.	SEIAA/GUJ/EC/1(d)&7(e)/3/2015

Category	Thermal Projects
Sub-District	Chorasi
Entity's PAN	*****5055K
Entity name as per PAN	RELIANCE INDUSTRIES LIMITED

Compliance Reporting Details

Reporting Year 2025

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	Actual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	398.32	398.32
Total	398.32	398.32

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	CPP-STEAM	Others:Tons per Hour (TPH)	N/A	845	510.4	
2	CCPP-STEAM	Million Tons per Annum (MTPA)	N/A	15.77	13.6	
3	CCPP-POWER	MW	N/A	360	267.0	
4	CPP-POWER	MW	N/A	260	48.4	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	MISCELLANEOUS	In terms of captive power generation within the RIL-HMD 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 470 MW. (as per amendment SEIAA / GUJ / EC / 1(d) & 7(e) / 584 / 2016 dated 28th Sep 2016)

PPs Submission: Complied The plant being captive in nature supplies power only to the complex and the load never exceeds the limit of 470 MW. However, this condition is not applicable now in view of EC No J-13012/5/2021-IA.I(T) dated 31.10.2022 regarding expansion of power generation capacity from 470 to 680 MW. Jetty construction is yet to be started. Dredging and shore protection activity completed. Power generation is given below. Oct24: 319.26 MW, Nov24: 308.22 MW, Dec24: 308.56 MW, Jan25: 293.75 MW, Feb25: 302.93 MW, Mar25: 314.85 MW	Date: 17/05/2025

2	AIR QUALITY MONITORING AND PRESERVATION	1A. Unit shall comply the emission standard mentioned in the notification by MoEF Vide no. S.O.3305(E) dated 07.12.2015 (As per amendment SEIAA / GUJ / EC / 1(d) & 7(e) / 584 / 2016 dated 28th Sep 2016)

PPs Submission: Complied We comply with this condition. We are complying with the emission standards mentioned in CCA issued by GPCB and the monitoring reports are attached as Annexure-I for reference.	Date: 18/05/2025

3	Marine/Coastal	The RIL shall strictly adhere to the provisions of the CRZ Notification, 2011 issued by the Ministry of environment and Forest, GOI.

PPs Submission: Complied Jetty construction is yet to be started. CRZ Notification provisions shall be followed during construction and operational phases.	Date: 18/05/2025

4	MISCELLANEOUS	The RIL shall obtain all necessary clearance permissions from different Government Department / Agencies before commencing any construction activity related to the proposed project.

PPs Submission: Complied We comply with this condition. Necessary clearances from GMB, DISH, Municipalities, notified area etc have been obtained for the CCPP. Jetty construction is yet to be started.		Date: 18/05/2025
5	Risk Mitigation and Disaster Management	The RIL shall prepare Safety/Disaster Management Plan and appoint safety officer to see compliance in handling of coal/liquid in this area.
PPs Submission: Complied The RIL has an established Safety/Disaster Management Plan for existing complex. The same has been revised and updated for CCPP.		Date: 18/05/2025
6	Marine/Coastal	The RIL shall have to obtain necessary permission from the GMB/Government for jetty/port under Maritime Board Act, 1980
PPs Submission: Complied Jetty construction is yet to be started.		Date: 18/05/2025
7	Marine/Coastal	The RIL shall construct jetty in such way that there shall not be any impacts on ecology of the area.
PPs Submission: Complied Will be complied with when the jetty construction is initiated.		Date: 18/05/2025
8	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.
PPs Submission: Complied We comply with this condition. Coal is being transported through dedicated trucks with proper covering. RIL HMD is transporting coal from nearby ports like Adani port.		Date: 18/05/2025
9	Risk Mitigation and Disaster Management	The RIL shall carry out simulation study for the proposed area considering the increase in the ship/barges traffic in the area, accidental shrinkage of barges/ships, due to proposed construction, covering the disaster/safety and environmental aspects and shall abide by the safety and environment protection measures emerges out of this study.
PPs Submission: Complied Jetty construction is yet to be started. Comprehensive Marine EIA had been carried out for this purpose during pre-monsoon (Feb- Mar-2013), monsoon (Oct-2013) and post monsoon (Jan-2014) and the recommendation shall be complied with. Simulation study is a part of marine EIA study conducted by NIO. Measures/ recommendation made in EMPs shall be complied with.		Date: 18/05/2025
10	Marine/Coastal	The dredging material shall be disposed of 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 location, influence zone, its impact on marine environment, if any and mitigation measures suggested shall be complied with by the RIL
PPs Submission: Complied Dredging material is disposed in our low- lying land for filling purpose and it has not caused any adverse impact on the marine environment.		Date: 18/05/2025
11	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.
PPs Submission: Complied Dredging records submitted to GMB during construction period.		Date: 18/05/2025
12	Marine/Coastal	The RIL shall strictly implement the measures suggested in the Comprehensive marine EIA report by the Nation Institute of Oceanography, Mumbai and suggested in the EIA report by NEERI, Nagpur for mitigation of likely adverse impact on coastal and marine environment.
PPs Submission: Complied We comply this condition. Recommendation given 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, limestone injection system, etc.		Date: 18/05/2025
13	WATER QUALITY MONITORING AND PRESERVATION	No ground water shall be tapped for any purpose for the project requirement.
PPs Submission: Complied Water for construction was sourced from existing raw water ponds. No ground water was used for the project.		Date: 18/05/2025
14	Risk Mitigation and Disaster Management	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 plant and the same is extended for CCPP. The DMP has been submitted to DISH, Surat and GPCB. The same has also been submitted to MoEFCC along with EIA reports.		Date: 18/05/2025
15	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 summit the same to the Department Forest & Environment after having it vetted through the Indian Coast Guard.
PPs Submission: Complied Oil Spill Contingency plan prepared and submitted to Indian coast guard for vetting Vide letter no RIL/HS/2016/06.		Date: 18/05/2025
16	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.		Date: 18/05/2025
17	Statutory compliance	The RIL shall furnish the environmental audit report including the aspects on coastal environment, to this Department every year
PPs Submission: Complied Jetty construction is not yet started .However marine environment monitoring is carried out for three seasons by MoEFCC approved laboratory at regular interval. Recent monitoring carried out in FY 2024-25.		Date: 18/05/2025

18	Marine/Coastal	The RIL-HMD shall strictly ensure that no creeks or rivers are blocked due to proposed activities in Tapi Estuary

PPs Submission: Complied No creeks or rivers are blocked due to dredging and shore protection activity carried out in Tapi Estuary.	Date: 18/05/2025

19	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.

PPs Submission: Complied Necessary precaution for protection of shoreline has been taken. Monitoring of shoreline changes will be done after construction of jetty.	Date: 18/05/2025

20	WATER QUALITY MONITORING AND PRESERVATION	It shall be ensured that due to the project activities. There is no adverse impact on the drainage of area.

PPs Submission: Complied Project activities have not impacted the drainage pattern of the area.	Date: 18/05/2025

21	AIR QUALITY MONITORING AND PRESERVATION	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 were properly stored within premises. Debris disposed-off within our premises for filling purpose and construction materials like steel, wood, plastics, packaging etc sold as scrap.	Date: 18/05/2025

22	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 construction site immediately after the construction over.

PPs Submission: Complied No construction material or debris was disposed-off into the sea or creek or in CRZ area.	Date: 18/05/2025

23	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 as scrap. There was no adverse impact on neighboring community.	Date: 18/05/2025

24	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 was used as a cement additive as per applicability.	Date: 18/05/2025

25	MISCELLANEOUS	Only lead free paints shall be used in the project.

PPs Submission: Complied Lead free paints were used during this project.		Date: 18/05/2025
26	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 it shall be ensured that the environmental conditions are not deteriorated by construction labour.
PPs Submission: Complied Construction labour camps were located outside CRZ area during construction activity of CCPP. Construction labours were provided necessary amenities. During the construction work of this project, environmental conditions were not deteriorated by construction labor.		Date: 18/05/2025
27	MISCELLANEOUS	Structural design aspects in accordance 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.		Date: 18/05/2025
28	MISCELLANEOUS	Superstructure shall be constituted 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
PPs Submission: Complied Structural design of the CCPP has been carried out considering seismic zone of the area. Super structure is constructed with pre-cast / cast in-situ slab wherever possible along with steel structure. Best practices as mentioned were followed during construction to reduce water demand.		Date: 18/05/2025
29	MISCELLANEOUS	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 amendment. All the construction design/drawing relating to be the proposed construction activities must have approvals of the concerned Government Department/Agencies
PPs Submission: Complied Construction of the proposed project has been carried out taking into consideration of all existing local and central rules.		Date: 18/05/2025
30	MISCELLANEOUS	The construction activities shall be carried out only under the constant supervision and guidelines of the institutes of the Nation repute.
PPs Submission: Complied The construction activities were carried out under the constant supervision of RIL project group and various institutes.		Date: 18/05/2025
31	WATER QUALITY MONITORING AND PRESERVATION	During construction phase, domestic water requirement shall be met through the existing water supply system i.e. Singanpore weir. No ground water shall be tapped in any case for the project requirements during the construction phase.
PPs Submission: Complied Domestic water requirement was met through the existing water supply system i.e. Singapore weir. Ground water was not used for the construction activity.		Date: 18/05/2025
32	AIR QUALITY	The diesel generator set, if any to be provided during the

	MONITORING AND PRESERVATION	construction phase shall be of enclosed type and confirming to the EPA rules for air and noise emission standards

PPs Submission: Complied Enclosed type DG sets provided which were conforming to the air and noise emission norms.	Date: 18/05/2025

33	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.

PPs Submission: Complied Vehicles hired during construction activity were regularly monitored for noise and emission generation and only the vehicles conforming to air and noise emission standards were operated.	Date: 18/05/2025

34	Noise Monitoring & Prevention	The overall noise level in and around the jetty area shall be kept well within the standard by providing noise control measures including engineering controls on all sources of noise generation. The ambient noise level shall conform to the standard prescribed under the Environment (Protection) Act, 1986 & Rules.

PPs Submission: Complied Noise level monitoring is being done for existing complex and same is carried out for CCPP areas. Observed noise levels are found well within norms. The proposed modification of Jetty is yet to be carried out.	Date: 18/05/2025

35	WATER QUALITY MONITORING AND PRESERVATION	There shall be no water requirement for jetty operations and there shall be no industrial effluent generation as only solid cargo would be handled at proposed jetty

PPs Submission: Complied Jetty construction is not yet started.	Date: 18/05/2025

36	WATER QUALITY MONITORING AND PRESERVATION	The fresh water requirement for the proposed CCPP shall not exceed 48,000 KL/day (12,000 KL/day of DM water + 36,000 KL/day of cooling tower make up water). and freshwater requirement after proposed expansion for the RIL-HMD complex shall not exceed 1,64,200 KL/day which shall be obtained through the existing source of water supply from Singanpor weir. Necessary permission from the Narmada Water Resources, Water supply and Kalpsar Department 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 requirement.

PPs Submission: Complied The average freshwater requirement for the CCPP is 27,816 KL/day during the reporting period.Fresh water requirement for the RIL-HMD complex is 1,22,263 KL/day (27.17 MGD) for the reporting period which is found well below the limit of 1,85,564 KL/day. (As prescribed in the ECs granted in 2022). Necessary approval has been obtained from Narmada, Water Resources, water supply and Kalpsar dept of Govt of Gujarat. Water with drawl quantity regularly submitted to GPCB. Metering of water withdrawal is being done and records also maintained. No ground water is used.	Date: 18/05/2025

37	WATER QUALITY MONITORING AND PRESERVATION	The industrial effluent discharge from the RIL-HMD complex shall not exceed 55,200 KL/day after the proposed expansion

PPs Submission: Complied Our average treated effluent discharge rate is 44,702 m3/day including CCPP and domestic sewage,	Date:

for the period of Oct24 - Mar25 which is well below the permissible limit.			18/05/2025
38	WATER QUALITY MONITORING AND PRESERVATION	Boiler blow down-700 KL/day from the proposed CCPP shall be recycled back as cooling tower make up water about 100 KL/day of additional effluent from DM plant due to proposed CCPP shall be treated in the existing ETP. Cooling tower blow down – 19,700 KL/day shall be treated effluent of the complex and shall be discharged into the Tapi estuary through existing effluent disposal pipeline equipped with multiport diffuser	
PPs Submission: Complied Effluent recycling system for existing system has been implemented at the plant for which the low TDS (TDS less than500 mg/l) effluent streams is segregated and treated. Treated effluent is recycled as cooling water make up and production of DM water. Effluent recycling for period of Oct24 - Mar25 is: 11,066 m3/day (total 20,14,094 m3 recycling during reporting period). CCPP Boiler blow down is being recycled as cooling tower make up. Cooling tower blow down and DM plant effluent is being taken into existing ETPs conditioning polishing tank and discharged to Tapi estuary through existing treated effluent disposal pipeline equipped with multiport diffuser.			Date: 18/05/2025
39	WATER QUALITY MONITORING AND PRESERVATION	The ETP shall be operated regularly and efficiently so as to achieve the GPCB norms at the outlet.	
PPs Submission: Complied The ETP is operated regularly and efficiently during reporting period. Detail Effluent monitoring data can be referred at Annexure-III.			Date: 18/05/2025
40	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.	
PPs Submission: Complied Multiple Holding tanks of sufficient capacity (approx.61,000 m3) have been provided for storage of effluents in case of emergency maintenance of effluent discharge pipeline. No emergency maintenance of effluent discharge pipeline carried out during reporting period Oct24 - Mar25.			Date: 18/05/2025
41	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.	
PPs Submission: Complied Metering facility is provided at the inlet and outlet of the ETP and records are maintained. Online pH, flow, TOC, COD, BOD and TSS analyzer are provided at treated effluent discharge line as per CPCB requirement. Our treated effluent is discharged into Tapi estuary due to which norms of TDS is not applicable to us.			Date: 18/05/2025
42	WATER QUALITY MONITORING AND PRESERVATION	The unit shall providing metering facility at inlets and outlets of the Collection Tank, maintain records.	
PPs Submission: Complied Metering facility is provided at the inlet and outlet of the ETP and records are maintained.			Date: 18/05/2025
43	WATER QUALITY MONITORING AND PRESERVATION	A proper logbook of ETP operation and also showing the quantity of effluent generated, reused / recycle, utilized in plantation / gardening etc. shall be maintained and furnished to the GPCB from time to time.	

		PPs Submission: Complied Logbook of ETP operation is maintained and furnished to GPCB as and when asked. Break up of existing treated effluent for the reporting period Oct24 - Mar25 are as below:Treated Effluent Recycled to cooling water make up and for DM water generation:11,066m3/day, Effluent Discharged: 44,702 m3/day, Total Effluent Quantity: 55,768 m3/day. Date: 18/05/2025
44	WATER QUALITY MONITORING AND PRESERVATION	Regular performance evaluation of the ETP shall be undertaken every year to check its adequacy, through credible institutes like L.D. Collage of Engineering, NPC or such other institute of similar repute, and its records shall be maintained.
		PPs Submission: Complied Performance evaluation by external agencies is being carried out annually through environmental auditor appointed by GPCB and the records are maintained. Date: 18/05/2025
45	WATER QUALITY MONITORING AND PRESERVATION	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.
		PPs Submission: Complied Effluent disposal pipeline is being checked regularly by site maintenance department for leakages. Report is attached as Annexure VII. Walkthrough survey of the pipeline is done once in six months whereas thickness survey is done once in 3 Years. The effluent disposal line and adequacy of diffuser has also been thoroughly checked/studied by NIO in 2014. No such eventualities happened during reporting period Oct24 - Mar25. Date: 18/05/2025
46	Marine/Coastal	The post project environment monitoring through the reported institute / organization shall be carried out in order to assess the changes if any in the marine / estuarine environment due to disposal of effluent.
		PPs Submission: Complied Marine environment monitoring is carried out for three seasons by MoEFCC approved laboratory at regular interval. Recent monitoring carried out in FY 2024-25.No adverse impacts have been noticed after implementation of this project. Date: 18/05/2025
47	MISCELLANEOUS	The unit shall join and participate financially and technically for any common environment 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 Govt. / GIDC.
		PPs Submission: Complied Noted. Date: 18/05/2025
48	Marine/Coastal	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 Jetty construction is yet to be started. Date: 18/05/2025
49	AIR QUALITY MONITORING AND PRESERVATION	Imported Coal to the tune of 8,575.0 TPD shall be used as a fuel in the proposed CCPP

	PPs Submission: Complied During reporting period average coal consumption at CCPP is 4,925 TPD. Month wise coal consumption is as follows: Oct24: 146078 MT, Nov24: 155372 MT, Dec24: 149143 MT, Jan25: 156276 MT, Feb25: 136327 MT, Mar25: 153122 MT	Date: 18/05/2025
50	AIR QUALITY MONITORING AND PRESERVATION	There shall be no use of fuel and hence there shall be no flue gas emission the proposed coal handling jetty
	PPs Submission: Complied Jetty construction is yet to be started.	Date: 18/05/2025
51	AIR QUALITY MONITORING AND PRESERVATION	Height of flue gas stacks attached to the CFBC boilers (5 nos. working and 01 no. standby) shall be minimum 220 meters as proposed.
	PPs Submission: Complied Height of flue gas stacks is 220 meters.	Date: 18/05/2025
52	AIR QUALITY MONITORING AND PRESERVATION	High efficiency Electrostatic Precipitators (ESPs) shall be installed as air pollution control system for the CFBC Boilers, and it shall be operated efficiency 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.
	PPs Submission: Complied High efficiency Electrostatic Precipitators (ESPs) are installed as air pollution control system for the CFBC Boilers. CFBC boilers stacks monitoring done on regular basis. ESPs are operated efficiency and regularly. Detail CCPP Stack emission monitoring data can be referred at Annexure-I. One extra field in each ESP has been provided.	Date: 18/05/2025
53	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 Necessary interlocks are provided.	Date: 18/05/2025
54	AIR QUALITY MONITORING AND PRESERVATION	Online monitoring system shall be installed on the boiler stacks to monitor PM, SO2, & NOx concentration 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 50mg/Nm3, utilization of boiler capacity shall reduce accordingly in order to bring down the particulate matter concentration below the 50 mg/Nm3. An arrangement shall also be done for reflecting the online monitoring result on the company's server, which can be assessable by the GPCB on real time basis.
	PPs Submission: Complied Online analyzers for PM, SO2 and NOx have been installed on all CCPP stacks. Standard Operating Procedure, is in place for complying this condition and interlocks are provided Real time data of CCPP emission are transmitted to CPCB /GPCB server.	Date: 18/05/2025
55	AIR QUALITY MONITORING AND PRESERVATION	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.

PPs Submission: Complied Regular preventive maintenance scheduled in SAP system and responsibility is also assigned for preventive maintenance activities.			Date: 18/05/2025
56	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	
PPs Submission: Complied Workplace monitoring is done periodically for existing facilities including CCPP. Occupational exposure limit is compared against ACGIH (American Conference of governmental industrial hygienist) standard.			Date: 18/05/2025
57	AIR QUALITY MONITORING AND PRESERVATION	1) All handling & transport of coal shall be exercised through covered coal conveyors only.	
PPs Submission: Complied Covered coal conveyors are installed in CCPP and handling and transportation is being carried out through this covered conveyor.			Date: 18/05/2025
58	AIR QUALITY MONITORING AND PRESERVATION	2) Enclosure shall be provided at coal loading and unloading operations.	
PPs Submission: Complied Enclosures are also provided at coal unloading and loading operations.			Date: 18/05/2025
59	AIR QUALITY MONITORING AND PRESERVATION	3) Water shall be sprinkled on coal stock piles periodically to retain some moisture in top layer and while compacting to reduce the fugitive emission.	
PPs Submission: Complied Water sprinkler systems are also installed at coal storage yard.			Date: 18/05/2025
60	AIR QUALITY MONITORING AND PRESERVATION	4) All transfer point shall be fully enclosed.	
PPs Submission: Complied Covered coal conveyors are provided in the CCPP including the transfer points.			Date: 18/05/2025
61	AIR QUALITY MONITORING AND PRESERVATION	5) 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 Dust suppression/extraction system at crusher house as well as for the coal stock yard are provided.			Date: 18/05/2025
62	AIR QUALITY MONITORING AND PRESERVATION	6) Accumulated dust on the ground and other surfaces shall be removed /sweep regularly and water the area after sweeping.	
PPs Submission: Complied			Date:

Regular housekeeping is being done to keep the area dust free.		18/05/2025
63	AIR QUALITY MONITORING AND PRESERVATION	7) Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement.
PPs Submission: Complied Internal roads are made asphalted properly to reduce the fugitive emission during vehicular movement.		Date: 18/05/2025
64	AIR QUALITY MONITORING AND PRESERVATION	8) Air borne coal dust shall be controlled with water sprinkles at suitable location in the plant.
PPs Submission: Complied DFSS (Dry Fogging Spray System) is provided at coal unloading area and at coal storage shed sprinkling system is provided at suitable locations.		Date: 18/05/2025
65	AIR QUALITY MONITORING AND PRESERVATION	9) Coal Shall be conveyed by piped conveyer system from jetty to plant. Alternatively, coal shall be conveyed through dumpers to the yard from nearby jetties of M/s Adani or Essar
PPs Submission: Complied Construction of jetty is yet to be initiated.		Date: 18/05/2025
66	AIR QUALITY MONITORING AND PRESERVATION	10) Fly ash shall be transported through closed/covered trucks only.
PPs Submission: Complied Fly ash is being transported through closed/covered trucks and bulkers only.		Date: 18/05/2025
67	AIR QUALITY MONITORING AND PRESERVATION	11) All trucks shall be properly covered at top and bottom with perfect sealing of plastic / tarpaulin sheets.
PPs Submission: Complied Coal transport trucks are properly covered with tarpaulin.		Date: 18/05/2025
68	GREENBELT	12) 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 A green belt area is being developed around the plant boundary areas.		Date: 18/05/2025
69	AIR QUALITY MONITORING AND PRESERVATION	13) All regularly used roadways around the site must be swept daily with tank mounted road sweeper and washed by a truck mounted cart.
PPs Submission: Complied Sweeping activities are being done manually and road sweeping machine services are being hired.		Date: 18/05/2025
70	AIR QUALITY MONITORING AND PRESERVATION	14) Regular cleaning of roads and removal of the accumulated dust from roadsides

	PPs Submission: Complied Regular cleaning of roads is being done for CCPP.	Date: 18/05/2025
71	AIR QUALITY MONITORING AND PRESERVATION	15) The storage yard shall be covered with screens / wall of at least 7 to 8 m height on three sides.
	PPs Submission: Complied The Coal storage yard is fully covered/enclosed from all sides with walls of more than 8-meter height from all sides.	Date: 18/05/2025
72	AIR QUALITY MONITORING AND PRESERVATION	Third party performance evaluation of the air pollution control systems including ESP shall be carried 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 institute of similar repute, and its records shall be maintained
	PPs Submission: Complied Performance evaluation of air pollution control systems by external agencies is being carried out annually through environmental auditor appointed by GPCB.	Date: 18/05/2025
73	AIR QUALITY MONITORING AND PRESERVATION	Regular monitoring of ground level concentration of SO2, NOx, PM10 and PM2.5 shall be carried out in the impact zone and its record 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. The location of the station and frequency of monitoring shall be decided in consultation with the GPCB.
	PPs Submission: Complied Regular Ambient air quality monitoring is done. Details of AAQ and CAAQMS data can be referred as Annexure-II. The site has established 7 AAQ monitoring stations within and outside the petrochemical complex based on the mathematical modeling studies carried out by NEERI considering wind direction and the maximum ground level concentration. An intimation letter to this effect was submitted to GPCB on 03.06.1992.	Date: 18/05/2025
74	AIR QUALITY MONITORING AND PRESERVATION	The company shall install and operate continuous ambient air quality monitoring station within 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 within the existing plant. Details of CAAQMS data can be referred as Annexure-II Location of CAAQMS is fixed after showing site to GPCB official and after getting their concurrence. A letter with respect to this site visit was also submitted to GPCB.	Date: 18/05/2025
75	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 GPCB shall be obtained for collection/treatment/storage/disposal of hazardous wastes.
	PPs Submission: Complied Used Oil, discarded containers and Oily cotton rags etc. are generated as Hazardous waste and these wastes are disposed off as per Authorization granted under Hazardous and Other Wastes	Date: 18/05/2025

(Management and Transboundary Movement), Rules 2016 by GPCB. Amended Authorization for CCPP is also obtained.		
76	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.
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.		Date: 18/05/2025
77	WASTE MANAGEMENT	Used oil shall be sold only to the registered recyclers / refiners.
PPs Submission: Complied Used oil is sold to offsite recyclers/ re-processors approved by MoEFCC having valid consent of GPCB /SPCB.		Date: 18/05/2025
78	WASTE MANAGEMENT	The company shall make necessary arrangements for 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 sea / creek or CRZ area in any case
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.		Date: 18/05/2025
79	WASTE MANAGEMENT	The discarded containers / barrels /bags / liners shall be sold only to the registered recycler after decontamination.
PPs Submission: Complied Discarded containers / barrels generated from CCPP get decontaminated at designated facility and thereafter sold to actual users as per GPCB/SPCB directives.		Date: 18/05/2025
80	WASTE MANAGEMENT	For storage of fly ash, closed silos of adequate capacity shall be provided. No ash pond shall be constructed in the project.
PPs Submission: Complied 3 Nos of Storage silo for Fly Ash (1600 MT capacity each) and 1 Storage Silo for Bed Ash (1600 MT) are installed. Ash pond has not been constructed in CCPP.		Date: 18/05/2025
81	WASTE MANAGEMENT	Ash from silos shall be transported through closed tankers for utilization by cement/ construction agencies.
PPs Submission: Complied Ash from the silos are transported through Cement bulkers / covered trucks.		Date: 18/05/2025
82	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.
PPs Submission: Complied Fly Ash notification is being complied with at CCPP. Ash utilization data (100 percent utilization) for the period of Oct24 - Mar25 is: Oct24: 15553 MT, Nov24: 15293 MT, Dec24: 14734 MT, Jan25: 20045 MT, Feb25: 18365 MT, Mar25: 22594 MT		Date: 18/05/2025

83	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 requirement of the Gujarat Factories Rules, 1963.
PPs Submission: Complied Jetty construction is yet to be started.		Date: 18/05/2025
84	MISCELLANEOUS	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.
PPs Submission: Complied Adequate Fire protection systems consist 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.		Date: 18/05/2025
85	Risk Mitigation and Disaster Management	Recommendation made in the Risk Assessment study report submitted by the project proponent shall be implemented
PPs Submission: Complied All recommendations made in the risk assessment are complied with.		Date: 18/05/2025
86	MISCELLANEOUS	Necessary emergency lighting system along with emergency power back up system shall be provided.
PPs Submission: Complied Emergency power back up system and emergency lighting systems are provided.		Date: 18/05/2025
87	MISCELLANEOUS	Personal Protective Equipment shall be provided to worker and its usage shall be ensured and supervised
PPs Submission: Complied Personal Protective Equipment are provided to workers and employees based on work and safety being ensured regularly.		Date: 18/05/2025
88	MISCELLANEOUS	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
PPs Submission: Complied First Aid Box and required antidotes are available at the site.		Date: 18/05/2025
89	MISCELLANEOUS	Training shall be given to all workers on safety and health aspects of handling chemicals.
PPs Submission: Complied 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. All RIL Hazira employees are imparted safety training through induction and refresher training on safe work practices, safe chemical handling.		Date: 18/05/2025
90	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 Occupational health surveillance of the workers is done, and its records are maintained. Pre-employment and periodical medical examination is carried out by OHC on a regular basis and records are maintained as per the Gujarat Factories Act and Rules.		Date: 18/05/2025
91	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 worker and keeping its record etc.
PPs Submission: Complied RIL Hazira has tie up with Surats leading hospitals such as BAPS-Pramukh Swami Hospital, Mehtas Seventh Day Adventist Mission Hospital, Bankers hospital and Shalby hospital Surat for immediate medical attention. Periodical medical checkup done for the RIL employees as well as contractors workers and records maintained for existing facility.		Date: 18/05/2025
92	Risk Mitigation and Disaster Management	The projects 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 Safety/Disaster Management Plan was prepared for the existing complex and it is updated for CCPP.		Date: 18/05/2025
93	MISCELLANEOUS	All transporting routes within the premises shall have paved roads.
PPs Submission: Complied All roads are paved within complex.		Date: 18/05/2025
94	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 1) 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.		Date: 18/05/2025
95	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 2) Manufactures / suppliers of major noise generating machines / equipment like air compressors, feeder pumps, turbine generators, etc. shall be instructed to make required design modification 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 Necessary confirmation taken from suppliers for steam turbine generator, pumps, and compressors etc. for noise level of equipment. The same is monitored as a part of condition monitoring.		Date: 18/05/2025
96	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 3) Regular maintenance of machinery and vehicles shall be undertaken to reduce the noise impact.

PPs Submission: Complied Regular maintenance of machinery and vehicles is undertaken to maintain noise levels.		Date: 18/05/2025
97	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 4) Noise suppression measures such as enclosures, buffers and /or protective measures shall be provided
PPs Submission: Complied Noise suppression measures like acoustic enclosures are provided wherever required.		Date: 18/05/2025
98	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 5) Employees shall be provided with ear protection measures like earplugs or earmuffs.
PPs Submission: Complied PPE are mandatory for use by everyone working in high noise areas.		Date: 18/05/2025
99	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 6) Proper oiling, lubrication and preventive maintenance shall be carried out of machineries and equipments to reduce noise generation.
PPs Submission: Complied Regular maintenance, oiling, lubrication of machinery and equipment is undertaken to reduce noise generation.		Date: 18/05/2025
100	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 7) Construction equipment generating minimum noise and vibration shall be chosen.
PPs Submission: Complied Construction equipment generating low noise and vibration were chosen during the erection of the plant.		Date: 18/05/2025
101	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 8) Ear plugs and/muffs shall be made compulsory for the construction workers working near the noise generating activities / machines / equipment.
PPs Submission: Complied PPE like earmuffs/plugs are mandatory for use by everyone working in high noise areas.		Date: 18/05/2025
102	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 9) 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.		Date: 18/05/2025
103	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 10) Construction equipment meeting the norms specified by EP Act, 1986 shall only be used
PPs Submission: Complied		Date:

Construction equipment meeting the EP Act norms were used during the erection of the plant.		18/05/2025
104	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 11) 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 generators are being used in the site.		Date: 18/05/2025
105	Noise Monitoring & Prevention	To minimize the noise pollution the following noise control measures shall be implemented: 12) Noise levels shall be reduced by the use of adequate mufflers on all motorized equipment.
PPs Submission: Complied Mufflers are provided on all motorized equipment.		Date: 18/05/2025
106	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 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 within the plant. The ambient noise level monitoring has been carried out on monthly basis in existing complex and in the CCPP area at eight locations during day and nighttime. Noise level observed at periphery of RIL HMD are in the range of 44.2 to 69.2 dBA (Leq) during daytime and 42.8 to 65.5 dBA (Leq) during nighttime within reporting period Oct24 to Mar25 Noise levels are found well within the stipulated norms. The above results also conform the effectiveness of Noise control measures taken.		Date: 18/05/2025
107	ENERGY PRESERVATION MEASURES	The project proponent shall install energy efficient devices and appliances confirming to the Bureau of Energy Efficiency norms.
PPs Submission: Complied Energy efficient devices have been provided in the plant like variable frequency drives etc.		Date: 18/05/2025
108	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 Energy audit done by third party for existing facilities and the recommendations are implemented.		Date: 18/05/2025
109	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 started. Further usage is being explored and under approval stage.		Date: 18/05/2025
110	ENERGY PRESERVATION MEASURES	The transformers and motor shall have minimum efficiency of 85%.

PPs Submission: Complied Transformers have efficiency over 85 percent.		Date: 18/05/2025
111	ENERGY PRESERVATION MEASURES	Variable frequency drives shall be used.
PPs Submission: Complied VFDs are installed in the CCPP.		Date: 18/05/2025
112	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
PPs Submission: Complied Energy conservation schemes are implemented such as LED lighting, level controller, flow controller etc in all plants and other energy conservation projects are being implemented.		Date: 18/05/2025
113	MISCELLANEOUS	Any other condition that may be stipulated but the SEIAA / SEAC / FOREST & Environment Department from time to time for environmental protection / management purpose shall have to be complied with by the RIL-HMD.
PPs Submission: Complied Noted.		Date: 18/05/2025
114	MISCELLANEOUS	The project authorities shall earmark adequate funds to implement the condition stipulated by SEIAA as well as GPCB along with the implementation schedule for all 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
PPs Submission: Complied Adequate funds have been allocated for implementing environmental conditions stipulated in SEIAA/GPCB clearances. Expenditure incurred to comply with the conditions stipulated by MoEFCC as well as by GPCB during the Yr 2024-25 is Rs. 45.997 crore.		Date: 18/05/2025
115	ENERGY PRESERVATION MEASURES	Energy saving practices as follow shall be practiced: 1) Constant monitoring of energy consumption and defining targets for energy conservation. 2) Adjusting the settings and illumination levels to ensure minimum energy used for desired comfort level. 3) Use of solar cells for lighting. 4) Use of solar water heater for canteen & washing area. 5) Proper load factor shall be maintained by the unit. 6) Provision of daylight roof to utilize maximum natural light in the production plant instead of electrical lighting. 7) Use of electronic ballast to save energy. 8) Automatic switching system for lighting & water tank pumping shall be used. 9) To the maximum extent possible and technically feasible, energy efficient equipment like motors, pumps, air conditioning systems shall be selected. 10) Gravity flow shall be preferred wherever possible to save pumping energy. 11) Promoting awareness on energy conservation. 12) Training to the staff on methods of energy conservation and to be vigilant for this.
PPs Submission: Complied 1) Departmental level targets have been fixed and energy consumption monitored against those targets. 2) Being complied. 3) LED bulbs are also used for lighting 4) Our canteen and Guest house		Date: 18/05/2025

		are equipped with solar water heater. 5) Being complied. 6) Day light roofs are provided at our Store and Warehouse areas. 7) Being complied 8) Automatic switching system for lighting are provided at various areas of plant as well as at washrooms. 9) Being complied. 10) These aspects are given due consideration during design stage. 11) RIL Hazira plant has 73 BEE certified energy professionals. Energy Conservation Day and other occasions are observed with befitting programmes to spread awareness. 12) Training is being imparted regularly by our Learning and Development dept and external trainings also imparted.
116	WASTE MANAGEMENT	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.
		PPs Submission: Complied We have adopted World class technology, which generates low wastes and gives maximum energy efficiency for existing plants and Same is compiled for CCPP. RIL Hazira plant has carried out CP assessment by Gujarat Cleaner Production Cell. GCPC has issued a certificate.
		Date: 18/05/2025
117	WASTE MANAGEMENT	The company shall undertake following waste minimization measures: a) Metering and control of quantities of active ingredients to minimize waste.
		PPs Submission: Complied All active ingredients are metered at all the plants. All hazardous wastes are metered at the time of generation.
		Date: 18/05/2025
118	WASTE MANAGEMENT	The company shall undertake following waste minimization measures: b) Reuse of by-product from the process as raw materials or raw materials substitutes in other process.
		PPs Submission: Complied Productive management of waste residue streams in PTA plant, SS powder recovery resulting in reuse of solid waste, Recovery of CO2 emission etc.Reuse of Bio-sludge at CCPP started.
		Date: 18/05/2025
119	WASTE MANAGEMENT	The company shall undertake following waste minimization measures: c) Use of automated and enclosed filling to minimize spillages.
		PPs Submission: Complied Automated and enclosed filling is provided at all the plants.
		Date: 18/05/2025
120	WASTE MANAGEMENT	The company shall undertake following waste minimization measures: d) Use of close feed system into batch reactors.
		PPs Submission: Complied Closed feed systems are installed for existing plants and CCPP.
		Date: 18/05/2025
121	WASTE MANAGEMENT	The company shall undertake following waste minimization measures: e) Dry cleaning / mopping of floor instead of floor washing.
		PPs Submission: Complied Being complied.
		Date: 18/05/2025
122	WASTE MANAGEMENT	The company shall undertake following waste minimization measures: f) Use of High-pressure hoses for cleaning to reduce waste water generation.

PPs Submission: Complied High pressure hoses used for cleaning and other measures also taken in plants for reduction of effluent.		Date: 18/05/2025
123	WASTE MANAGEMENT	The company shall undertake following waste minimization measures: g) Regular preventive maintenance for avoiding leakage, spillage etc.
PPs Submission: Complied Regular preventive maintenance is carried out as per internal systems.		Date: 18/05/2025
124	GREENBELT	The RIL-HMD 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 green belt.
PPs Submission: Complied Plant species are selected for existing plant as per CPCB guidelines.		Date: 18/05/2025
125	GREENBELT	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 Hazira industrial area, nearby schools, gram panchayat areas and any other opens areas in consultation with local bodies / GPCB and submit an action plan of plantation for next three years to the GPCB.
PPs Submission: Complied Trees have been planted through-out the periphery of the complex as well as wherever open spaces are available. As per the request of village sarpanch, plantation has already been carried out in Junagam, Damka, Mora villages.		Date: 18/05/2025
126	MISCELLANEOUS	In the event of failure of any pollution control system adopted by the unit, the unit shall be safety closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.
PPs Submission: Complied No such failure event had happened during reporting period at CCPP.		Date: 18/05/2025
127	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 Six monthly CREP compliance for existing unit including CCPP is submitted to GPCB Gandhinagar.		Date: 18/05/2025
128	MISCELLANEOUS	All issues raised during the Public hearing shall be addressed comprehensively.
PPs Submission: Complied Noted. Issues raised during public hearing have been addressed appropriately.		Date: 18/05/2025
129	Corporate Environmental Responsibility	The RIL-HMD shall have to contribute financially for taking up the socio-economic upliftment activities in this region in consultation with the Forest and Environment Department and the district Collector / District Development Officer.

PPs Submission: Complied RIL-HMD has taken up many activities for the upliftment of nearby community. The same has been continued today by Reliance Foundation not only in our area but for entire Nation.		Date: 18/05/2025
130	Corporate Environmental Responsibility	The RIL shall ensure that the Corporate Social Responsibility (CSR) activities shall be carried out on need base of local people.
PPs Submission: Complied RIL-HMD has taken up many activities for the upliftment of nearby community. The same has been continued today by Reliance Foundation not only in our area but for entire Nation.		Date: 18/05/2025
131	MISCELLANEOUS	A separate Environment 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 20 plus year experience. The cell is supported by qualified Environment professionals (Env. Engg). Environment Head report to Site President. Environmental monitoring and analysis done in laboratory. Regular rounds were taken during construction and operational phase also regularly compliances ensured by environment cell personals. Sufficient funds are earmarked every year for environmental monitoring and analysis. Expenditure during the Yr 2024-25 is Rs. 45.997 crore.		Date: 18/05/2025
132	MISCELLANEOUS	A separate budget shall be earmarked for environmental management and socio-economic activities and details thereof shall be furnished to the Forest and Environment Department, SEIAA as well as MoEF& GOI. 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. Expenditure incurred to comply with the conditions stipulated by MoEFCC as well as by GPCB during the Yr 2024-25 is Rs. 45.997 crore.		Date: 18/05/2025
133	MISCELLANEOUS	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-HMD to the Forest & Environment Department as well as to the SEIAA.
PPs Submission: Complied Marine environment monitoring is carried out for three seasons by MoEFCC approved laboratory at regular interval. Recent monitoring carried out in FY 2024-25.No adverse impacts have been noticed after implementation of this project.		Date: 18/05/2025
134	MISCELLANEOUS	The RIL-HMD 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 Funds allocated for environmental management is used only for that purpose.		Date: 18/05/2025
135	MISCELLANEOUS	All the recommendation made in the EIA/EMP and other document 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.		Date: 18/05/2025
136	Statutory compliance	The RIL-HMD shall regularly submit the half-yearly compliance report on the conditions stipulated in hard and soft copies to the regulatory authorities concerned, on 1st June and 1st December of each calendar year.
PPs Submission: Complied Six monthly compliance reports are being submitted to MoEFCC, Gandhinagar regularly.		Date: 18/05/2025
137	Statutory compliance	No further expansion or modification or development likely to cause environmental impacts shall be carried out without obtaining prior clearance from the concerned authority.
PPs Submission: Complied Noted.		Date: 18/05/2025
138	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 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 newspaper that are widely circulated in the region, one of which shall be in Gujarati language and the other in English. A copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
PPs Submission: Complied Already published in Local News Papers. Complied with.		Date: 18/05/2025
139	Statutory compliance	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 June and 1st December of each calendar year.
PPs Submission: Complied Six monthly compliance reports are being submitted to MoEFCC RO, Gandhinagar regularly.		Date: 18/05/2025
140	Statutory compliance	The project authorities shall also adhere to the stipulation made by the Gujarat Pollution Control Board.
PPs Submission: Complied All stipulations made by GPCB are complied with. Please refer Annexure I, II, III regarding monitoring report for the period Oct 2024 to March 2025.		Date: 18/05/2025
141	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: 18/05/2025
142	MISCELLANEOUS	The SEIAA may revoke or suspend the clearance, if

		implementation of any of the above condition is not found satisfactory.
PPs Submission: Complied Noted.		Date: 18/05/2025
143	MISCELLANEOUS	The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same in found necessary. The above condition will be enforced, inter-alia under the provision of the water (Prevention & control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act 1986 and Hazardous Waste (Management Handling and Transboundary) Rules, 2008 along with their amendment and rules.
PPs Submission: Complied Noted.		Date: 18/05/2025
144	MISCELLANEOUS	This environmental clearance is valid for five years from the date issue.
PPs Submission: Complied Noted.		Date: 18/05/2025
145	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: 18/05/2025

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	All Annexures are attached as an additional attachment.

Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.

Half Yearly Compliance Report
2025
01 Jun(01 Oct - 31 Mar)

Acknowledgement

Proposal Name	Debottlenecking & expansion of existing petrochemical complex, Hazira, GIDC Mora plot, village Mora, Dist. Surat, Gujarat by M/s Reliance Industries Ltd.-EC-reg.
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED
Village(s)	Limla (CT)
District	SURAT

Proposal No.	J-II011/40/2015-IA-II(I)
Plot / Survey / Khasra No.	
State	GUJARAT
MoEF File No.	J-II011/40/2015-IA-II(I)

Category	Industrial Projects - 2
Sub-District	Chorasi
Entity's PAN	*****5055K
Entity name as per PAN	RELIANCE INDUSTRIES LIMITED

Compliance Reporting Details

Reporting Year 2025

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	Actual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	398.32	398.32
Total	398.32	398.32

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	VINYL CHLORIDE MONOMER (VCM)	Tons per Annum (TPA)	N/A	4,75,000	3,52,902	
2	POLY VINYL CHLORIDE	Tons per Annum (TPA)	N/A	4,75,000	3,56,532	
3	HCL-PVC PLANT	Tons per Annum (TPA)	N/A	67,992	44,387	
4	SOLVENT (EDC HEAVY END)	Tons per Annum (TPA)	N/A	11,400	2,000	
5	PVC WET RESIN	Tons per Annum (TPA)	N/A	12,166	345	
6	POLY ETHYLENE	Tons per Annum (TPA)	N/A	5,50,000	4,74,144	
7	POLYPROPYLENE	Tons per Annum (TPA)	N/A	5,00,000	4,34,311	
8	PP CATALYST	Tons per Annum (TPA)	N/A	300	196	
9	METAL SALT CATALYST	Tons per Annum (TPA)	N/A	160	132	
10	PLANT SWEEP/POLY LUMPS/MACHINE LUMPS	Tons per Annum (TPA)	N/A	54,000	779	
11	TIO2 DRY	Tons per Annum (TPA)	N/A	1,080	0	
12	TIO2 WET	Tons per Annum (TPA)	N/A	4,000	3,560	
13	MONO ETHYLENE GLYCOL (MEG)	Tons per Annum (TPA)	N/A	7,20,000	4,54,981	
14	ETHYLENE OXIDE (EO)	Tons per Annum (TPA)	N/A	2,40,000	1,19,638	
15	HGR(INCLUDING DEG,TEG,MIX GLYCOL GRADE-1,2,3,4)	Tons per Annum (TPA)	N/A	78,000	57,349	
16	CARBON DIOXIDE	Tons per Annum (TPA)	N/A	72,000	28,994	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	PP shall comply with the standards/norms for Petrochemicals (Basic & Intermediates) Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R 820(E) dated 09th November 2012.
PPs Submission: Complied Gaseous emissions from process units are monitored on monthly basis through MoEFCC approved laboratory and its results indicate conformance to the GPCB prescribed standards. Parameters are also monitored periodically as per EPA 4th amendment rules dated 09.11.2012 and the same will be complied for the proposed projects. Pls refer detailed Stack Monitoring report as Annexure-I.		Date: 17/05/2025
2	AIR QUALITY MONITORING AND PRESERVATION	Continuous on-line stack monitoring for SO2 and NOx of all the flue gas stacks shall be carried out. Low NOx burners shall be installed.
PPs Submission: Complied Continuous Online stack monitoring for all the Stacks as suggested by CPCB are carried out and connected to CPCB/GPCB server. High efficiency burners have been provided at the site which restricts the NOx well below the GPCB norms. During the period of Oct24 - Mar25.NOx values were observed in the range of 11.53-133.91 mg/Nm3.Details of NOx emission can be referred at Annexure-I and the same will be complied for new projects.		Date: 17/05/2025
3	AIR QUALITY MONITORING AND PRESERVATION	The process emissions [S02, NOx, HC (Methane & Non-methane)], VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.
PPs Submission: Complied Gaseous emissions of SO2, NOx, HC from process units are monitored regularly through MoEFCC approved laboratory and its result indicate conformance to the GPCB prescribed standards. SO2 and NOx also monitored periodically in VCM furnaces as per EPA 4th amendment rules. Monitoring will be done as per applicable standards for new projects. Pls refer detailed Stack Monitoring report as Annexure-I. During Oct24 - Mar25, emission levels have not exceeded the prescribed standards. The same shall be complied for the proposed projects. Noted and will be complied for upcoming projects. During the period Oct24 - Mar25 no such failure of pollution control equipment has been observed after debottlenecking of existing plants.		Date: 17/05/2025
4	AIR QUALITY MONITORING AND PRESERVATION	Leak Detection and Repair programme shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations.
PPs Submission: Complied LDAR program is carried out in each plant on quarterly basis in all plants for detection/quantification and control of Fugitive emissions. During the reporting period the same		Date: 17/05/2025

were carried out at all plants. Existing practices will be continued for upcoming projects. Complied as per LDAR norms. The same shall be continued for proposed plants. Maintenance of mechanical seals of pumps and valves are being done on regular basis in all plants. Proper maintenance of mechanical seals of pumps and valves shall be done for upcoming projects. Being complied with. LEL detectors for monitoring HC leakages have been installed.		
5	AIR QUALITY MONITORING AND PRESERVATION	SO2 emissions after expansion from the plant shall not exceed the standard limits of CPCB.
PPs Submission: Complied Complied with.		Date: 17/05/2025
6	AIR QUALITY MONITORING AND PRESERVATION	Ambient air quality monitoring stations, [PM10, PM2.5, SO2, NOx, non-methane-HC and Benzene] shall be set up in the complex in consultation with State Pollution Control Board, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs. Trend analysis W.r.t past monitoring results shall also be carried out. Adequate measures based on the trend analysis shall be taken to improve the ambient air quality in the project area.
PPs Submission: Complied The site has established 7 AAQ monitoring stations within petrochemical complex based on the mathematical modeling studies carried out by NEERI considering wind direction and the maximum ground level concentration. An intimation letter was submitted to GPCB on 03.06.1992.Limit is for annual average. Readings are on 24 hourly basis. Details of AAQ and CAAQMS data can be referred as Annexure-II. Results indicate that the values are conforming the prescribed norms specified by NAAQS/GPCB. Monitoring network is already decided based on the mathematical modelling carried out by NEERI indicating the locations for maximum GLCs. Trend analysis is being done and the same will be continued. Trends of AAQ data from the year 2021 can be referred as Annexure-IV With the trends do not indicate any such requirement as in addition to these trends the emission levels from the plant are well below the stipulated norms.		Date: 17/05/2025
7	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. Besides, acoustic enclosure /silencer shall be installed wherever noise levels exceed the limit. Acoustic enclosure /silencer should be installed wherever it is possible.
PPs Submission: Complied Adequate stacks height is provided for proper dispersion from DG sets. Same will be complied during new projects. Noise suppression measures like acoustic enclosures are provided wherever required. Same will be complied with during the proposed project. Complied. Installation of acoustic enclosure /silencer ensured by addressing the requirements during the design phase.		Date: 17/05/2025
8	AIR QUALITY MONITORING AND PRESERVATION	National Emission Standards for Petrochemicals (Basic & Intermediates) Industry issued by the Ministry vide G.S.R. 820(E) dated 09th November 2012 and amended time to time shall be complied by the unit.
PPs Submission: Complied Gaseous emissions from process units are monitored on monthly basis through MoEFCC approved laboratory and its result indicate conformance to the GPCB prescribed standards. Parameters also monitored periodically as per EPA 4th amendment rules. Same will be complied with during the new projects. Monitoring will be done as per applicable standards. Pls refer detailed Stack Monitoring report as Annexure-I.		Date: 17/05/2025

9	WATER QUALITY MONITORING AND PRESERVATION	The additional total water requirement for the proposed project shall not exceed 15000 m3 /day. The total water requirement after the proposed expansion shall not exceed 1,54,288 m3/day and prior permission shall be obtained from the competent authority.
PPs Submission: Complied Will be complied with. Necessary approval has been obtained from Narmada, Water Resources, water supply and Kalpsar dept of Govt of Gujarat. The average freshwater requirement for the existing RIL-HMD complex was 1,22,263 m3/day (27.16 MGD) during the reporting period.		Date: 17/05/2025
10	WATER QUALITY MONITORING AND PRESERVATION	Effluent shall be segregated into high TDS and low TDS effluent streams. Low TDS effluent will be treated in the ETP comprising primary, secondary and tertiary treatment facility. Treated effluent will be reused for cooling tower make up. High TDS effluent stream will be segregated on the basis of oil content stream and non-oil content stream. Effluent will be treated in the ETP comprising primary and secondary treatment facility. Treated effluent will be discharged through the Existing diffuser into Tapi estuary. Coke (VCM plant) and coke (Cracker plant) will be sent to TSDF/ incineration/co-processing with cement plant. Spent catalyst will be sent to the authorized re-processors.
PPs Submission: Complied Segregation of effluent streams of existing complex done based on TDS and the same will be practiced for the proposed project as well. Please refer detailed treated effluent monitoring report as Annexure-III. Complied. After debottlenecking of existing plants, treated effluent are recycled as cooling water make up and DM water production etc. Average effluent recycled for the period of Oct24 - Mar25 is: 11,066 m3/day (19.84 percent) Will be complied with for other approved projects also, which are yet to be commissioned. High TDS effluent stream has been segregated based on oil content and COD load. Same Will be done for the new projects as well. Complied with. Treated effluent from HMD complex is being discharged into Tapi estuary through existing multiport diffuser. Same pipeline and diffuser will be used for upcoming plants effluent discharge. Wastes generated, such as Coke (VCM plant) and Coke (Cracker plant) are disposed for co-processing in cement plants. Saleable spent catalysts are sold to authorized re processors. During the reporting period, Oct24 - Mar25: Spent Catalyst Sold : 112.58 MT, Coke (VCM plant) : 33 MT, Coke (Cracker plant) : 17.10 MT, Disposal is being done as per GPCB authorization.		Date: 17/05/2025
11	WATER QUALITY MONITORING AND PRESERVATION	All the effluents after treatment shall be routed to a properly lined storage pond for equalization and final control. In the storage pond, automatic monitoring system for flow rate, pH and TOC shall be provided with interlocking arrangements. Data shall be uploaded on company's website and provide to respective Regional Office of MEF&CC and SPCB.
PPs Submission: Complied Complied with. Online flow meter and pH, TOC, BOD, COD and TSS analyzers are already provided with interlocking arrangements at treated effluent discharge line. Continuous Online effluent monitoring for all the parameters prescribed as suggested by CPCB are connected to CPCB/GPCB server. Will be complied with for approved expansion projects also.		Date: 17/05/2025
12	WATER QUALITY MONITORING AND PRESERVATION	Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises
PPs Submission: Complied Catchers/oil traps (under/overflow flow and blocking gates) are provided at all possible locations in plants for recovery of oil. Will be taken care for new projects during design stage.		Date: 17/05/2025
13	WASTE MANAGEMENT	The Company should strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 2016 and amended time to time. Hazardous waste should be

		disposed of as per Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2016 and amended time to time.
PPs Submission: Complied Provisions of MSIHC Rules, 1986 e.g. Safety audit report, emergency response plan, regular mock drills, emergency alert systems etc. are duly complied with and will be extended to the approved expansion projects also. We are disposing hazardous waste as per methods prescribed in authorization and in conformance to HOWM Rules 2016. Will be complied with for approved expansion projects also.		Date: 17/05/2025
14	WASTE MANAGEMENT	The membership of common TSDF should be obtained for the disposal of hazardous waste. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Bhopal. Chemical/inorganic sludge shall be sent to Treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst shall be sent to authorized recyclers/re-processors.
PPs Submission: Complied Complied Submitted to Ministry in earlier submissions of Six-monthly EC compliance reports. Chemical sludge generated from ETP plant is being sent for secured landfilling at TSDF Spent catalyst is being sent to authorized recyclers/reprocessors. Will be complied with for approved expansion projects also.		Date: 17/05/2025
15	MISCELLANEOUS	The company shall strictly follow all the recommendation mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).
PPs Submission: Complied Six monthly CREP compliance is being regularly submitted to GPCB Gandhinagar. Same will be followed for new projects.		Date: 17/05/2025
16	Human Health Environment	Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
PPs Submission: Complied Occupational Health Surveillance of the workers in existing plants are done on a regular basis and records maintained as per the Factories Act. Will be complied with for approved expansion projects also.		Date: 17/05/2025
17	GREENBELT	The existing green belt to be strengthened and increased by 20 Ha. PP shall explore and undertake shortfall, if any by plantation every year in the neighboring villages in consultation with local authorities to match greenbelt cover of 33%. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
PPs Submission: Complied The existing green belt area has been increased by more than 20 Ha. Around 123 ha of green cover provided within Hazira Petrochemical complex. Area is being identified for tree plantation. Every year plantation drive has been done to do gap filling plantation in Green Belt area. Plant species are selected as per CPCB guidelines.		Date: 17/05/2025
18	MISCELLANEOUS	Company shall prepare project specific environmental manual and a copy shall be made available at the project site for the compliance
PPs Submission: Complied Will be complied with.		Date: 17/05/2025
19	Risk Mitigation and Disaster Management	All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be

		implemented. The company should make the arrangement for protection of possible fire and explosion hazards during manufacturing process in material handling.
PPs Submission: Complied All recommendations made in the risk assessment report, disaster management plan and safety guidelines are complied for units which are undergoing debottlenecking. Same will be complied for expansion projects. Adequate arrangement for protection from possible fire and explosion hazards will be provided in manufacturing and material handling processes.		Date: 17/05/2025
20	Corporate Environmental Responsibility	At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.
PPs Submission: Complied Adequate funds have been allocated for implementing the conditions Stipulated by the statutory authorities. Recurring expenditure incurred to comply with the conditions stipulated by MoEFCC as well as by GPCB during the Yr 2024-25 is Rs. 45.997 crore. Will be complied		Date: 17/05/2025
21	MISCELLANEOUS	A regular environment manager having post graduate qualification in environmental sciences/ environmental engineering to be appointed for looking after the environmental management activities of the proposed plant.
PPs Submission: Complied A separate Environment Cell headed by Environment Head with environment qualification and more than 20 years of experience has been established for environment management activities of existing plant and the same will cater to the need for the expansion projects. The cell is supported by qualified Environment professionals (Env.Engg). Environment Head reports to Site President.		Date: 17/05/2025
22	MISCELLANEOUS	Company shall adopt Corporate Environment Policy as per the Ministry's O.M. No. J- 11013/41/2006-IA.II (I) dated 26th April, 2011 and implemented.
PPs Submission: Complied Already adopted and implemented. Site is ISO 14001 certified since 1999.New plants will be included in the scope of ISO 14001 certification.		Date: 17/05/2025

General Conditions

Sr.No.	Condition Type	Condition Details
1	Corporate Environmental Responsibility	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
PPs Submission: Complied RIL-HMD has taken up many activities for the upliftment of nearby community. The same is now undertaken by Reliance Foundation not only in our area but for entire India.		Date: 17/05/2025
2	Statutory compliance	The project authorities must strictly adhere to the stipulations made by the Gujarat State Pollution Control Board, State Government and any other statutory authority
PPs Submission: Complied All stipulations made by GPCB are complied with. Please refer Annexure I,II, III regarding		Date: 17/05/2025

monitoring report for the period Oct 2024 to March 2025.		
3	Statutory compliance	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. 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
PPs Submission: Complied Noted.		Date: 17/05/2025
4	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.
PPs Submission: Complied Complied. Details of AAQ and CAAQMS data can be referred as Annexure-II. The site has established 7 AAQ monitoring stations in upwind and downwind direction within petrochemical complex based on the mathematical modeling studies carried out by NEERI considering wind direction and the maximum ground level concentration.		Date: 17/05/2025
5	AIR QUALITY MONITORING AND PRESERVATION	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.
PPs Submission: Complied A Summary of the Ambient Air Quality (AAQ) monitoring results of Oct24 - Mar25 is given in Annexure-II.		Date: 17/05/2025
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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
PPs Submission: Complied Noise control measures such as acoustic hoods, silencers and enclosures etc. are provided at high noise generating source within the existing plants. The ambient noise level monitoring has been carried out on monthly basis at eight locations during day and nighttime. Noise control measures will be provided during design stage for new plants. Noise levels monitored at periphery of RIL HMD are in the range of 44.2 - 69.2 dBA (Leq) during daytime and 42.8 - 65.5 dBA (Leq) during nighttime within reporting period Oct24 - Mar25.		Date: 17/05/2025
7	WATER QUALITY MONITORING AND PRESERVATION	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.
PPs Submission: Complied As RIL Hazira plant is located near Tapi River, due to tidal effect and close proximity to sea, Ground water table is high and water is saline due to salinity ingress. Hence, we have implemented a rainwater collection and storage facility in the plant to reduce water drawl from the river to that extent. Surface runoff and roof top rainwater collection scheme is implemented at Rel Pipe plant, POY cooling towers, and Raw Water-2 storm channel. Ground water recharge wells have been as		Date: 17/05/2025

CSR activity in surrounding villages.		
8	Human Health Environment	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.
PPs Submission: Complied Training related to safety and health aspects of chemical handling are imparted to all workers, including contractor workers. 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. All RIL Hazira employees are imparted safety training through induction and refresher training on safe work practices, safe chemical handling and use of PPEs. Same will be complied for the new projects. Pre-employment and periodical medical examination is carried out by OHC on a regular basis for all employees and records are maintained as per the Gujarat Factories Act and Rules. The same will be complied for the new project as well. Training related to safety and health aspects of chemical handling are imparted to all workers, including contractor workers. . 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. All RIL Hazira employees are imparted safety training through induction and refresher training on safe work practices, safe chemical handling and use of PPE.		Date: 17/05/2025
9	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 and risk mitigation measures relating to the project shall be implemented.
PPs Submission: Complied Being complied with. Recommendations of the EIA/EMP reports will be implemented during project execution and operational phase.		Date: 17/05/2025
10	Corporate Environmental Responsibility	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-HMD has taken up many activities for the up-liftment of nearby community. The same is now being undertaken by Reliance Foundation not only in our area but for entire India. RIL-HMD has taken up many activities for the upliftment of nearby community. The same is now undertaken by Reliance Foundation not only in our area but for entire India.		Date: 17/05/2025
11	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.
PPs Submission: Complied A separate Environment Cell headed by Environment Head with environment qualification and 20 plus year experience has been established to look after environment management activities of existing plant and the same will cater to the need for the expansion projects. The cell is supported by qualified Environment professionals (Env. Engg). Environment Head report to Site President.		Date: 17/05/2025
12	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.

PPs Submission: Complied Adequate funds have been allocated for implementing environmental management and socio-economic activities. Expenditure incurred to comply with the conditions stipulated by MoEFCC as well as by GPCB during the Yr 2024-25 is Rs. 45.997 crore. Funds allocated for environment management/ pollution control measures are spent for such measures only and are not diverted for any other purpose.		Date: 17/05/2025
13	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.
PPs Submission: Complied Copies of the Environmental Clearance submitted to Mora Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO etc.		Date: 17/05/2025
14	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.
PPs Submission: Complied Six monthly compliance report is submitted to MoEFCC, Gandhinagar regularly. Last compliance report was submitted vide our letter (699/25112024/HMD/MoEFCC) dated 25/11/2024 sent through email at iro.gandhingr-mefccatgov.in dated 01.12.2024. Six monthly compliance report is being submitted to MoEFCC, RO, Gandhinagar regularly. Last compliance report was submitted vide our letter (699/25112024/HMD/MoEFCC) dated 25/11/2024 sent through email at iro.gandhingr-mefccatgov.in dated 01.12.2024.		Date: 17/05/2025
15	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&CC by e-mail.
PPs Submission: Complied Form V is regularly submitted to GPCB. Please Refer Form-V for FY 23-24 as Annexure-VI.		Date: 17/05/2025
16	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.
PPs Submission: Complied Public have been informed about the grant of Environment clearance through the advertisement in the local newspaper dated 16/07/17 and copy of advertisement is Submitted to ministry Public has been informed about the Environment clearance through the advertisement in the local newspaper dated 16/07/17 and copy of advertisement is Submitted to ministry.		Date: 17/05/2025
17	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
PPs Submission: Complied Noted.		Date: 17/05/2025
18	MISCELLANEOUS	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory
PPs Submission: Complied Noted.		Date: 17/05/2025
19	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 Noted.		Date: 17/05/2025
20	MISCELLANEOUS	The above conditions will be enforced, inter alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention &. Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (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: 17/05/2025

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	All Annexures are attached as an additional attachment.

Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.

Half Yearly Compliance Report
2025
01 Jun(01 Oct - 31 Mar)

Acknowledgement

Proposal Name	Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-reg. (Expansion of 470 MW to 680 MW with an additional 45 MW and debottlenecking of existing petrochemical complex at Hazira)
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED
Village(s)	Limla (CT)
District	SURAT

Proposal No.	IA/GJ/THE/290329/2021
Plot / Survey / Khasra No.	
State	GUJARAT
MoEF File No.	J-13012/5/2021-IA.I(T)

Category	Thermal Projects
Sub-District	Chorasi
Entity's PAN	*****5055K
Entity name as per PAN	RELIANCE INDUSTRIES LIMITED

Compliance Reporting Details

Reporting Year 2025

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	Actual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	398.32	398.32
Total	398.32	398.32

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	CPP-STEAM	Others:Tons per Hour (TPH)	N/A	845	510.4	
2	CCPP-POWER	MW	N/A	360	267	
3	CPP-POWER	MW	N/A	260	48.4	
4	CCPP-STEAM	Million Tons per Annum (MTPA)	N/A	15.77	13.6	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	GREENBELT	Green Belt with Miyawaki plantation (Three row plantation) along the plant boundary shall be developed with more than 90 % survival rate of the plant species. It would be ensured that total 33% (minimum) area of total project cover area is under green belt. An action plan in this regard to be submitted before regional office of the Ministry Within 3 months. Plant Species shall be selected for green belt after Air Pollution Tolerance (APTI)study

PPs Submission: Complied Complied. A green belt area is already developed with more than 3 rows around the plant boundary with survival rate of greater than 90percent. Complied. 123 Ha of green cover provided within Hazira Petrochemical complex which admeasuring about 33 percent of total area. We have already submitted additional green belt development plan through letter dated 14/09/22. Plant species are already selected for existing plant as per CPCB guideline.	Date: 18/05/2025

2	AIR QUALITY MONITORING AND PRESERVATION	Continuous Air Quality Monitoring station shall be established in villages falling within 5KM radius from the project boundary namely Suvali Village, Mora Village ,Damaka Village, Limla Village and Bhatlai Village connecting with CPCB server.

PPs Submission: Complied Continuous Ambient Air Quality Monitoring Station (CAAQMS) is already installed within the existing plant considering the existing Coal and Gas based power plant. Ambient air quality monitoring stations are already in operation at nearby villages viz., Dumas, Bhatlai, Hazira and Icchapore. Its monitoring report is being submitted regularly to GPCB and MoEFCC.	Date: 18/05/2025

3	AIR QUALITY MONITORING AND PRESERVATION	24*7 online Monitoring system for ambient air quality shall be established with its connectivity with SPCB and CPCB server. Stack monitoring shall be done through 24*7 online monitoring system . The emission standards for bio mass/ coal based thermal power plant shall be complied

PPs Submission: Complied As mentioned above Continuous AAQ monitoring station has been established with in the existing complex. Online analysers for PM, SO2 and NOx have been installed on all CPP and CCPP stacks with connectivity to CPCB /GPCB server. Coal / Biomass based thermal power plant stacks monitoring done on regular basis.	Date: 18/05/2025

4	WATER QUALITY MONITORING AND PRESERVATION	Water quality monitoring stations shall be established in Tapti estuary for continuous monitoring of estuary water connecting with CPCB server

PPs Submission: Complied 2 water quality monitoring locations have been setup:100m upstream and 100m downstream of treated effluent discharge point on Tapi River estuarine zone. Samples have been collected at regular interval and analysed in our laboratory.	Date: 18/05/2025

5	AIR QUALITY MONITORING AND PRESERVATION	Adequate dust extraction system such as cyclones /bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided along with an environment friendly sludge disposal system.

PPs Submission: Complied Adequate dust suppression / extraction systems have been provided at coal / biomass-based power plant such as water sprinkler systems, covered coal storage area, closed silo for fly ash storage to avoid dust in CCPP etc.	Date: 18/05/2025

6	ENERGY PRESERVATION MEASURES	Harnessing solar power within the premises of the plant particularly at available roof tops shall be carried out and status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring report.

PPs Submission: Complied Solar energy is already being harnessed at RILHMD. Solar water heating system is installed at our Guest House for all the rooms. Around 100 KW of Solar Panel has been installed within the complex at various places. Around 25,000 SM3/day of Biogas generated through anaerobic digesters and the same is being utilized as renewable source of fuel in our vaporizers.	Date: 18/05/2025

7	WATER QUALITY MONITORING AND PRESERVATION	Monitoring of surface water quantity and ground water quality shall also be regularly conducted, and records maintained. The monitored area shall be submitted to the ministry regularly. Further, Monitoring data shall be location between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results /findings submitted along with half yearly monitoring report.

PPs Submission: Complied Fresh water (Tapi River) quantity monitoring is done on daily basis. The average freshwater requirement for the existing RIL-HMD complex was 1,22,263 KL/day (27.16 MGD) during the reporting period. Ground water quality monitoring is also being carried out in nearby villages on six monthly basis. As mentioned above, Ground Water monitoring has been carried out regularly in nearby villages and its results are attached herewith as Annexure- IX Complied. Pl. refer Annexure - IX	Date: 18/05/2025

8	WATER QUALITY MONITORING AND PRESERVATION	A well-designed rainwater harvesting system shall be put in place within six months, which shall compromise of rainwater collection from the built up and open area in the plant premises and detailed record kept of the quantity of water harvested every year and its use.

PPs Submission: Complied We have already implemented a rainwater collection and storage facility in the existing plants to reduce freshwater drawl from the river to that extent. Surface runoff and roof top rainwater collection scheme is implemented at Rel Pipe plant, POY cooling towers, and Raw Water-2 storm channel and Raw water reservoirs. Rain water conserved is 2,33,682 m3 during reporting period and this water is used as a source of raw water and thus reducing the total water withdrawal.	Date: 18/05/2025

9	WATER QUALITY	Project proponent shall explore the use of treated sewage water

	MONITORING AND PRESERVATION	from the sewage Treatment plant or Municipality /local bodies /similar organization located within 50KM radius of the proposed power project to minimize the water drawl from surface water bodies.
PPs Submission: Complied For reduction of fresh water withdrawal RIL HMD is currently recycling about 11,000 m3/day of treated effluent as well as Rain water conservation on regular basis. HMD complex is operated at an optimized water drawl demand. Other possibilities for reduction are under consideration.		Date: 18/05/2025
10	WATER QUALITY MONITORING AND PRESERVATION	A detailed action plan regarding leachate handling shall be prepared and implemented in consultation with SPCB and the same shall be submitted to the Regional Office of the Ministry.Zero liquid discharge shall be adopted. Leachate shall be treated and reused. No treated leachate shall be discharged in any circumstances. Characteristics of leachate and the treated leachate shall be monitored once in quarter and records shall be maintained.
PPs Submission: Complied Leachate handling point is not applicable to us as RIL-HMD is not operating any landfill site neither does it maintain any ash pond.A small leachate handling system is provided around Hazardous waste storage area of existing complex and leachate generated will be treated in existing ETP. Not applicable. Leachate handling point is not applicable to us as RIL-HMD is not operating any landfill site neither it maintains any ash pond.		Date: 18/05/2025
11	WATER QUALITY MONITORING AND PRESERVATION	No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up /operation of the power plant.
PPs Submission: Complied Complied. Natural drainage system in the area is not disturbed due to activities associated with operationalization of gas-based power plant and biomass usage in coal-based power plant.		Date: 18/05/2025
12	WASTE MANAGEMENT	Fly ash handling shall be done strictly as per extent rules/regulations of the Ministry/CPCB issued from time to time
PPs Submission: Complied Complied.		Date: 18/05/2025
13	MISCELLANEOUS	Epidemiological study among population within 5 KM radius of project cover area shall be carried out on regular interval (Once in Two year) through independent agency. Necessary measures shall be taken as per finding of study in consultation with district administration. Detailed plan shall be prepared and implemented in stipulated time to mitigate problems of malnutrition (6.67% current level) in project surrounding area as observed by the project proponent during Epidemiological study. Action taken report shall be submitted to the Regional Office of the Ministry .
PPs Submission: Complied We are in discussion with nearby villages Public Health Center Doctors and reviewing the data regarding the prevalent diseases in the area. As per them no epidemic has been reported in 5 KM radius of area from the project site till today. Also, there is no malnutrition reported in this area. However, if any need is indicated and need is felt then we will initiate further action in this regard.		Date: 18/05/2025
14	Statutory compliance	EC shall be published in at least two newspapers widely circulated; one shall be in the vernacular language of the locality concerned.
PPs Submission: Complied Grant of Environment clearance has been advertised in the two local newspapers as stipulated dated		Date: 18/05/2025

05/11/2022 and copy of advertisement is submitted to ministry.		
15	Corporate Environmental Responsibility	In view of CER schemes identified based on need-based assessment shall be implemented in consultation with the village Panchayat and the District Administration starting from the development of project itself. As part of CER prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be undertaken. Company shall provide separate budget for community development activities and income generating programs.
PPs Submission: Complied Reliance Foundation has taken up many activities for the upliftment of nearby community. A department established for the same identifies the requirement with discussion with village Panchayat as well as District administration before implementation. Reliance Foundation also undertake both CSR and CER schemes, not only in Hazira area but for entire India. RIL-HMD has taken up activities like education / training /Rain water harvesting / tree plantation etc for nearby community.		Date: 18/05/2025
16	Corporate Environmental Responsibility	CER activities will be carried out as per OM No. 22-65 /2017-IA.II dated 30th September ,2020 along with the detailed scheduled of implementation with appropriate budgeting .
PPs Submission: Complied CER activities are undertaken as per the referred OM.		Date: 18/05/2025
17	Corporate Environmental Responsibility	Public grievance redressals system shall be established under supervision of project head. The functioning of the system shall be reviewed every month
PPs Submission: Complied Public Grievance Redressal system has been already established and it is being periodically reviewed by our Corporate Affairs Dept.		Date: 18/05/2025
18	Corporate Environmental Responsibility	A vision document comprising prospective plan for implementation of various CER activities, plantation program outside the project cover area , rejuvenation and conservation of water bodies within 5KM radius of the project cover area, creation of sacred groves etc shall be prepared and submitted to Regional Office of the Ministry within 6 Months. Implementation status of the same shall be reported to the Regional office in 6 Monthly compliance report
PPs Submission: Complied The approval accorded is for operationalization of the units. The Captive power Plant and the CCPP are already installed and commissioned. RIL-HMD has taken up many activities for the upliftment of nearby community. The same is now undertaken by Reliance Foundation not only in our area but for entire India.		Date: 18/05/2025
19	MISCELLANEOUS	Implementation of EMP and compliance of EC conditions, E(P) Act,1986 Rules and MoEF&CC Notifications issued time to time shall be achieved by a full time qualified Environment Officer having Post Graduate qualification in environment Science /Environmental Engineering .
PPs Submission: Complied A separate Environment Cell headed by Environment Head with environment qualification and more than 20 years of experience has been established for environment management activities of the plant. The cell employs qualified Environment professionals (Env.Engg).		Date: 18/05/2025

20	Statutory compliance	The conditions stipulated in the previous EC/ECs granted by the Ministry /SEIAA shall also be complied with.
PPs Submission: Complied All the conditions stipulated in the Environment Clearances granted to the site are being complied. Six monthly compliance report is being submitted to MoEFCC, IRO, Gandhinagar regularly. Last compliance report was submitted vide our letter (699/25112024/HMD/MoEFCC) dated 25/11/2024 sent through email at iro.gandhingr-mefccatgov.in dated 01.12.2024.		Date: 18/05/2025
21	Statutory compliance	Environment Audit of plant shall be done annually, and report shall be submitted to Regional Office of the Ministry.
PPs Submission: Complied Environment audit is being carried out on yearly basis by environmental auditor appointed by GPCB and report is being submitted to GPCB Gandhinagar. Copy of last year audit report submission letter is attached herewith as Annexure -X.		Date: 18/05/2025
22	MISCELLANEOUS	All necessary clearance from the concerned Authority ,as may be applicable should be obtained prior to commencement of project or activity .
PPs Submission: Complied Agreed.		Date: 18/05/2025
23	Statutory compliance	Emission Standards for Thermal Power Plant as per Ministry's Notifications S.O.3305 (E) dated 07.12.2015,G.S.R.593 (E) dated 28.06.2018 and as amended from time to time shall be complied
PPs Submission: Complied Emission monitoring of thermal power plant done on regular basis. Please refer Annexure for details.		Date: 18/05/2025
24	Statutory compliance	Part C of Schedule II of Municipal Solid waste Rules, 2016 dated 08.04.2016 as amended from time to time shall be complied for Power plants based on Municipal Solid Waste.
PPs Submission: Complied The plant is not based on MSW. Biomass in the form of agricultural wastes/ bio sludge from ETP etc. is used to the extent of its availability.		Date: 18/05/2025
25	Statutory compliance	MoEF&CC Notifications G.S.R 02 (E) dated 02.01.2014 as amended time to time regarding use of raw or blended or beneficiated /washed coal with ash content not exceeding 34% shall be complied with as applicable .
PPs Submission: Complied This condition is not applicable as only imported coal is being used for power generation and hence ash content remain always less than 34 percent.		Date: 18/05/2025
26	Statutory compliance	MoEF&CC Notification on Fly Ash Utilization S.O. 763 (E) dated 14.09.1999 ,S.O. 979 (E) dated 27.08.2003 , S.O. 2804 (E)dated 3.11.2009 , S.O.254 (E) dated 25.01.2016 as amended from time to time shall be complied .
PPs Submission: Complied Complied. 100percent Ash is being utilized as per FA notification.		Date: 18/05/2025
27	Statutory compliance	Thermal Power plants other than the power plants located on coast and using sea water for cooling purposes, shall achieve specific water

		consumption of 2.5 m3/MWh and Zero effluent discharge
PPs Submission: Complied Coal based power plant of RIL-HMD is commissioned in December 2016. Thus, norm of 2.5 m3 / MWh is not applicable. Norm applicable is 3.5 m3 / MWh which is complied with.		Date: 18/05/2025
28	MISCELLANEOUS	The recommendations from Standing Committee of NBWL under the Wild life (Protection) Act ,1972 should be obtained, if applicable.
PPs Submission: Complied Not applicable.		Date: 18/05/2025
29	MISCELLANEOUS	No objection Certificate from Ministry of civil Aviation be obtained for installation of requisite chimney height and its siting criteria for height clearance.
PPs Submission: Complied Not applicable as current project is operationalization of existing gas-based power plant.		Date: 18/05/2025
30	MISCELLANEOUS	Ground water shall not be drawn during construction of the project. In case, groundwater is drawn during Construction, necessary permission be obtained from CGWA .
PPs Submission: Complied Not Applicable, as the units are already installed.		Date: 18/05/2025
31	MISCELLANEOUS	EC is given on the basis of assumption of % of ash content and _Km distance of transportation in rail/road conveyor /any other mode. Any increase of %ash content by more than 1 percent, and/or any change in transportation mode or increase in the transport distance (except for rail) require application for modifications of EC condition after conducting the “Incremental impact assessment ‘ and proposal for mitigation measures
PPs Submission: Complied Not Applicable as it is not in the scope of this EC.		Date: 18/05/2025
32	AIR QUALITY MONITORING AND PRESERVATION	Flue gas Desulphurization System shall be installed based on Lime /Ammonia dosing to capture Sulphur in the flue gases to meet the SO2 emission standard of 100mg/Nm3
PPs Submission: Complied This condition is not applicable as our coal-based power plant is commissioned in December 2016 and current project is only operationalization of gas-based power plant. As per the TPP standards Notification the applicable limit for SO2 emission is thus 600 mg/Nm3.		Date: 18/05/2025
33	AIR QUALITY MONITORING AND PRESERVATION	Selective Catalytic Reduction (SCR) system or the Selective Non Catalytic Reduction (SNCR) system or Low NOX burners with over fire Air (OFA) system shall be installed to achieve NOX emission standard of 100 mg/Nm3
PPs Submission: Complied Power plant has low NOx burners installed and the emission of NOx is within limits at all times. This condition is not applicable as current project is only operationalization of gas-based power plant.		Date: 18/05/2025
34	AIR QUALITY MONITORING AND	High efficiency Electrostatic Precipitators (ESPs) shall be installed in each unit to ensure that particular matter (PM) emission to meet the

	PRESERVATION	stipulated standards of 30 mg/NM3.
PPs Submission: Complied This condition is not applicable as current project is only operationalization of gas-based power plant. Moreover, our coal-based power plant commissioned in December 2016 and thus norm of 30 mg / Nm3 is not applicable. Thus, the permissible limit for PM emission is 50 mg/Nm3.		Date: 18/05/2025
35	AIR QUALITY MONITORING AND PRESERVATION	Stack of prescribed height shall be provided with continuous online monitoring instruments for SOx, NOx, and particulate matter as per extant rules.
PPs Submission: Complied Complied.		Date: 18/05/2025
36	AIR QUALITY MONITORING AND PRESERVATION	Exit Velocity of flue gases shall not be less than 20-23 m/s . Mercury emission from stack shall also be monitored periodically
PPs Submission: Complied Complied. EC for coal-based power plant has been granted for designed flow rate of chimney based on mathematical modelling. Same flow rate is being maintained. CCPP stack monitoring done on regular basis including mercury emission. Results are tabulated below: Parameter :GPCB Limits, Avg. , Min, Max - Hg(mg/ Nm3): 0.03, BDL, BDL ,BDL.		Date: 18/05/2025
37	AIR QUALITY MONITORING AND PRESERVATION	Continuous Ambient Air Quality monitoring system shall be set up to monitor common /criteria pollutants from the flue gases such as PM10 ,PM2.5 ,SO2,NOx within the plant area at least at one location. The monitoring of other locations (at least three locations outside the plant area covering upwind and downwind direction at an angle of 120 degree each) shall be carried out manually .
PPs Submission: Complied Continuous Ambient Air Quality Monitoring Station (CAAQMS) has already installed within the complex. The site has established 7 AAQ monitoring stations within petrochemical complex based on the mathematical modelling studies carried out by NEERI considering wind direction and the maximum ground level concentration. An intimation letter is submitted to GPCB on 03.06.1992. Details of AAQ and CAAQMS data can be referred as Annexure-II.		Date: 18/05/2025
38	AIR QUALITY MONITORING AND PRESERVATION	Adequate dust extraction system shall be installed in coal handling ,ash handling areas and material transfer points to control fugitive emissions.
PPs Submission: Complied This condition is not applicable as our project is operationalisation of gas-based power plant. However, adequate dust extraction system is installed at coal handling, ash handling areas and material transfer points to control fugitive emissions.		Date: 18/05/2025
39	AIR QUALITY MONITORING AND PRESERVATION	Appropriate Air Pollution Control measures (DEs/DSs) be provided at all the dust generating sources including sufficient water sprinkling arrangements at various location viz., roads /excavation sites, crusher plants, transfer points ,loading and unloading areas etc
PPs Submission: Complied This condition is not applicable as our project is operationalisation of gas-based power plant. However, water Sprinkling arrangements are provided at suitable locations such as coal storage yard, crusher storage and loading and unloading areas.		Date: 18/05/2025
40	Noise Monitoring & Prevention	The ambient Noise levels shall meet the standards prescribed as per the Noise Pollution (Regulation and Control) Rules 2000

PPs Submission: Complied The ambient noise level monitoring is being carried out regularly. Maximum Noise level found at periphery of RIL HMD in the range of 44.2 to 69.2 dBA (Leq) during daytime and 42.8 - 65.5 dBA (Leq) during nighttime within reporting period Oct24 - Mar25. Noise levels are found well with-in the stipulated norms. Workplace noise levels are monitored and required precautions are taken to avoid exposure.		Date: 18/05/2025
41	Noise Monitoring & Prevention	Person Exposed to high noise generating equipment shall use personal protective Equipment (PPE) like earplug/ear muffs etc
PPs Submission: Complied Use of earplug/ ear muffs is compulsory at high noise area for employees and contractors. This is being ensured regularly.		Date: 18/05/2025
42	Noise Monitoring & Prevention	Periodically medical examination on hearing loss shall be carried out for all the workers and maintain audiometric record and for treatment of any hearing loss including rotating to non-noisy /less noisy areas
PPs Submission: Complied Occupational health surveillance including audiometry test is done periodically of the workers and its records are maintained.		Date: 18/05/2025
43	Human Health Environment	Biannual Health checkup of all the workers is to be conducted. The study shall consider of chronic exposure to noise which may lead to adverse effects like increase in heart rate and blood Pressure, hypertension and peripheral vasoconstriction and thus increased peripheral vascular resistance. Similarly, the study shall also assess the health impacts due to air polluting agents.
PPs Submission: Complied Occupational health check-up of the workers is done as per Gujarat factory Rules and its records are maintained. Workplace monitoring including air polluting agents is being done periodically for existing plants.		Date: 18/05/2025
44	Human Health Environment	Baseline health status within study area shall be assessed and report be prepared. Mitigation measures should be taken to address the endemic diseases.
PPs Submission: Complied This condition is not applicable.		Date: 18/05/2025
45	Human Health Environment	Impact of operation of power plant on agriculture Crops, large water bodies (as applicable) once in two years by engaging an institute of repute. The study shall also include impact due to heavy metals associated with emission from power plant
PPs Submission: Complied Current project is operationalisation of existing gas-based power plant and gas being a cleaner fuel its emission is always remain well within the norms prescribed by GPCB / CPCB. Thus, said impact is not envisaged.		Date: 18/05/2025
46	Human Health Environment	Sewage Treatment Plant shall be provided for domestic wastewater.
PPs Submission: Complied Domestic wastewater is treated along with process effluent in existing ETP. There is no separate Sewage treatment plant within RIL HMD complex.		Date: 18/05/2025
47	WATER QUALITY	Induced /Natural draft closed cycle wet cooling system including

	MONITORING AND PRESERVATION	cooling towers shall be set up with minimum Cycles of Concentration (COC) of 5.0 or above for power using fresh water to achieve specific water consumption 2.5m3/MWHr (Or). Induced /Natural draft open cycle cooling system shall be set up with minimum Cycles (COC) of 1.5 or above for power plants using sea water

PPs Submission: Complied Complied. However, as mentioned above our coal-based power plant is commissioned in December 2016 and therefore the norm of 2.5 m3/MWh is not applicable. Not applicable.	Date: 18/05/2025

48	WATER QUALITY MONITORING AND PRESERVATION	In case of the water withdrawal from River, a minimum flow 15% of the average flow of 120 consecutive leanest days should be maintained for environmental flow whichever is higher, to be released during the lean season after water withdrawal of proposed power plant

PPs Submission: Complied Tapi River, our source of water, is a perennial river. However, water drawl permission granted by Govt. Of Gujarat considering all these aspects.	Date: 18/05/2025

49	WATER QUALITY MONITORING AND PRESERVATION	Records pertaining to measurements of daily water withdrawal and river flows (obtained from Irrigation Department / water Resources Department) immediately upstream and downstream of withdrawal shall be maintained

PPs Submission: Complied Record for freshwater withdrawal is maintained.	Date: 18/05/2025

50	WATER QUALITY MONITORING AND PRESERVATION	Rainwater harvesting in and around the plant area be taken up to reduce drawl of fresh water. If possible, recharge of ground water to be undertaken to improve the ground water table in the area .

PPs Submission: Complied Rain water conservation is already implemented at site as mentioned above. As RIL Hazira plant is located at the mouth of Tapi River, due to tidal effect and close proximity to sea, Ground water table is high and water is saline due to salinity ingress. Therefore, Ground Water recharge is not serving any purpose in this region.	Date: 18/05/2025

51	WATER QUALITY MONITORING AND PRESERVATION	Regular (At least once in six month) monitoring of ground water quality in and around the ash pond area including presence of heavy metals (Hg,Cr,As ,Pb,etc) shall be carried out as per CPCB guidelines . Surface water quality monitoring shall be compared with the baseline data so as to ensure that the groundwater and surface water quality is not adversely impacted due to the project & its activities

PPs Submission: Complied This condition is not applicable as our project is operationalisation of gas-based power plant.	Date: 18/05/2025

52	WATER QUALITY MONITORING AND PRESERVATION	The treated effluent emanating from the different processes such as DM plant, boiler blow down, ash pond/dyke, sewage etc conforming to the prescribed standards shall be re circulated and reused . Sludge /rejects will be disposed in accordance with the Hazardous waste Management Rules.

PPs Submission: Complied Treated effluent is being recycled as cooling water make up and DM water production etc. in existing plants. Average effluent recycled for the period of Oct24 - Mar25 is: 11,066 m3/day (19.84 Percent). Complied	Date: 18/05/2025

53	WATER QUALITY MONITORING AND PRESERVATION	Hot water dispensed from the condenser should be adequately cooled to ensure the temperature of the released surface water is not more than 5 degrees Celsius above the temperature of the intake water

PPs Submission: Complied This condition is not applicable as condenser cooling water is routed through cooling tower and does not use once through cooling.	Date: 18/05/2025

54	WATER QUALITY MONITORING AND PRESERVATION	Based on the commitment made by the project proponent, sewage Treatments plants within the radius of 50 Km from proposed project ,the treated sewage from STP shall be used as and alternative to the fresh water sources to minimize the fresh water drawl from surface water bodies

PPs Submission: Complied For reduction of fresh water withdrawal RIL HMD is presently recycling about 11,000 m3/day of treated effluent as well as Rain water conservation as mentioned above.	Date: 18/05/2025

55	WATER QUALITY MONITORING AND PRESERVATION	Waste water generation from various sources (Viz. cooling tower blowdown, waste water from ash handling etc) shall be treated to meet the standards of pH:6.5-8.5; Total Suspended Solids :100 mg/l ;O&G :20 mg/l ;Copper :1 mg/l ; iron :1 mg/l ; Free chlorine :0.5 ,Zinc:1.0 mg/l ; Total Chromium :0.2 mg/l ; Phosphate:5.0 mg/l ;

PPs Submission: Complied The results of treated effluent conform to the prescribed standards of GPCB. The treated effluent is discharged through the existing marine disposal system in Tapi estuary. Detail of treated effluent quality can be seen as Annexure-III.	Date: 18/05/2025

56	WATER QUALITY MONITORING AND PRESERVATION	Sewage generation will be treated by setting up sewage Treatment plant to maintain the treated sewage characteristics of pH:6.5-9.0; Biochemical Demand (BOD) :30 mg/l; Total Suspended Solids ;100 mg/l; Free Coliform (Most Probable Number: <1000 per 100 ml

PPs Submission: Complied Sewage water is treated along with process effluent and being discharged after conforming to the norms prescribed by GPCB.	Date: 18/05/2025

57	Risk Mitigation and Disaster Management	Adequate safety measures and environmental safeguards shall be provided in the plant area to control spontaneous fires in coal yard, especially during dry and humid season.

PPs Submission: Complied Adequate Fire protection systems consist 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.	Date: 18/05/2025

58	Risk Mitigation and Disaster Management	Storage facilities for auxiliary liquid fuel such as LDO and HFO /LSHS shall be made as per the extent rules in the plant area in accordance with the directives of Petroleum & Explosives safety Organization (PESO). Sulphur content in the liquid fuel should not exceed 0.5%.

PPs Submission: Complied Auxiliary liquid fuel such as LDO and HFO /LSHS are stored after taking necessary permissions from PESO (Chief controller of explosive (CCOE)) Nagpur and Directorate Industrial safety and Health, Gujarat Low Sulphur fuel like Natural gas, Ethane and LSHS is used in the plant to minimize SO2 emission.	Date: 18/05/2025

59	Risk Mitigation and Disaster Management	Ergonomics working condition with first Aid and sanitation arrangement shall be made for the drivers and other contract workers during construction phase

PPs Submission: Complied Complied.	Date: 18/05/2025

60	Risk Mitigation and Disaster Management	Safety management plan based on Risk Assessment shall be prepared to limit the Risk exposure to the workers within the plant boundary

PPs Submission: Complied All safety measures are taken to avoid/reduce the risk exposure to the workers within the plant boundary. Regularly HITRA is being prepared for all activities.	Date: 18/05/2025

61	Risk Mitigation and Disaster Management	Regular mock drills for onsite emergency management plan and Integrated Emergency Response System shall be developed for all kind of possible disaster situation.

PPs Submission: Complied Various level (L1, L2 and L3) of mock drills are conducted for emergency management. Emergency management plan prepared considering all type of scenarios and submitted to DISH from time to time.	Date: 18/05/2025

62	GREENBELT	Green belt shall be developed in an area of 33% of the total project with indigenous native tree species in accordance with CPCB guidelines .The green belt shall inter- alia cover an entire periphery of the plant .

PPs Submission: Complied Complied. Around 123 Ha of green cover provided within Hazira Petrochemical complex which admeasuring about 33 percent of total area.	Date: 18/05/2025

63	GREENBELT	In -situ/ex -situ Conservation Plan for the conservation of Flora and fauna should be prepared and implemented.

PPs Submission: Complied Complied. Around 123 Ha of green cover provided within Hazira Petrochemical complex which admeasuring about 33percent of total area.	Date: 18/05/2025

64	GREENBELT	Suitable screens shall be placed across the intake channel to prevent entrainment of life forms including eggs, larvae, juvenile fish etc during extraction of sea water

PPs Submission: Complied Complied.	Date: 18/05/2025

65	WASTE MANAGEMENT	Solid waste management should be planned in accordance with extant Solid Waste Management Rules, 2016.

PPs Submission: Complied Solid waste is being disposed as per Solid Waste Management Rules, 2016.	Date: 18/05/2025

66	WASTE MANAGEMENT	Toxicity Characteristics Leachate Procedure (TCLP) test shall be conducted for any substance, potential of leaching heavy metals into the surrounding areas as well as into the ground water

PPs Submission: Complied Complied.		Date: 18/05/2025
67	WASTE MANAGEMENT	Ash pond shall be lined with impervious liner as per the soil condition. Adequate dam/dyke safety measures shall also be implemented to protect the ash dyke from getting breached
PPs Submission: Complied This condition is not applicable.		Date: 18/05/2025
68	WASTE MANAGEMENT	Fly ash shall be collected in dry form and ash generated shall be used in phased manner as per provisions of the Notifications on Fly ash Utilization issued by the Ministry and amendments thereto . By the end of 4th Year ,100% fly ash utilization should be ensured . Unutilized ash shall be disposed off in the ash Pond in the form of High concentration Slurry .Mercury and other heavy metals (As,Hg,Cr,Pb,etc) will be monitored in the bottom ash as also in the effluent emanating from the existing ash pond. Fly Ash utilization details shall be submitted to the concerned Regional office along with the six -monthly compliance reports and utilization data shall be published on Company's website .
PPs Submission: Complied Fly Ash notification is being complied at CCPP. 100 percent FA utilization is being achieved during the reporting period. The CCPP has only dry ash collection system and all ash is disposed. Annual ash utilization details are submitted to MoEFCC and a copy of the same is attached herewith as Annexure -XI. Also, the ash utilization data uploaded on CPCB- Ash availability and utilization portal.		Date: 18/05/2025
69	WASTE MANAGEMENT	Unutilized ash shall be disposed off in the ash pond in the form of High Concentration Slurry/Medium Concentration Slurry /Lean Concentration Slurry method. Ash water recycling system shall be set up to recover supernatant water.
PPs Submission: Complied Not Applicable.		Date: 18/05/2025
70	WASTE MANAGEMENT	In case of waste to energy plant, major problems related with environment are fire smog in MSW dump site, foul smell and impacts to the surrounding .Therefore, the following measures are required to be taken up: a) Water hydrant at all the dump sites of MSW area to be provided so that the fire and smog could be controlled . b) Sprayer like microbial consortia may be provided arresting the foul smell emanating from MSW area .
PPs Submission: Complied This condition is not applicable		Date: 18/05/2025
71	Statutory compliance	Environmental Audit of the project be taken up by the third party for preparation of Environmental Statement as per Form V & conditions stipulated in the EC and report be submitted to the Ministry.
PPs Submission: Complied Form V is regularly submitted to GPCB. Please Refer Form-V for FY 23-24 as Annexure-VI.		Date: 18/05/2025
72	MISCELLANEOUS	Resettlement and Rehabilitation plan as per the extent rules of

		Govt. of India and respective State Govt. shall be followed, if applicable
PPs Submission: Complied This condition is not applicable.		Date: 18/05/2025
73	ENERGY PRESERVATION MEASURES	Energy conservation plan to be implemented as envisaged in the EIA/EMP report . Renewable Energy purchase obligation as set by MoP /state Government shall be met either by establishing renewable energy power plant (such as Solar, wind etc) or by purchasing renewable Energy certificates
PPs Submission: Complied Energy conservations schemes are being implemented as a regular practice. Complied.		Date: 18/05/2025
74	AIR QUALITY MONITORING AND PRESERVATION	Monitoring of carbon emission from the existing power plant as well as for the proposed power project shall be carried out annually from a reputed institute and report be submitted to the Ministry's Regional Office
PPs Submission: Complied GHG emission in terms of CO2 equivalent are regularly monitored for entire plant and verified by third party.		Date: 18/05/2025
75	ENERGY PRESERVATION MEASURES	Energy and water Audit shall be conducted at least once in two years and recommendations arising out of the Report should be followed .A report in this regard shall be submitted to Ministry's Regional Office
PPs Submission: Complied GPCB appointed auditors doing environmental audit of the plant which include water audit compliance on annual basis. Energy audit is being done by third party. Various water and energy conservations scheme are being implemented for existing plants. Comprehensive Water Audit has been carried out for the FY 2024-25 and attached as Annexure V.		Date: 30/05/2025
76	MISCELLANEOUS	Environment Cell (EC) shall be constituted by taking members from different division, headed by a qualified person on the subject, who shall be reporting directly to the Head of the project .
PPs Submission: Complied A separate Environment Cell headed by Environment Head with environment qualification and more than 20 years of experience has been established for environment management activities of existing plant and the same will cater to the need for the expansion projects. The cell is supported by qualified Environment professionals (Env.Engg). Environmental monitoring and analysis done in laboratory.		Date: 19/05/2025
77	MISCELLANEOUS	The project Proponent shall send a copy of environmental clearance letter to the heads of Local bodies ,Panchayat, Municipal Bodies and relevant offices of the environment
PPs Submission: Complied Copies of the Environmental Clearance submitted to Mora Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO etc.		Date: 19/05/2025
78	MISCELLANEOUS	The project Proponent shall upload the clearance letter on the web site of the company as a part of information to the general public
PPs Submission: Complied		Date:

Condition wise compliance of EC is uploaded on our website.		19/05/2025
79	Statutory compliance	The project Proponent shall ppload the public through advertisement 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 that the project has been accorded environmental clearance by the Ministry and Copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry of Environment ,Forest and climate Change (MoEF&CC) at http://parivesh.nic.in
PPs Submission: Complied Public have been informed about the grant of Environment clearance through the advertisement in the local newspaper dated 05/11/2022 and copy of advertisement is submitted to ministry.		Date: 19/05/2025
80	Statutory compliance	The project Proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically
PPs Submission: Complied Six monthly compliance report is submitted to MoEFCC, Gandhinagar regularly. Last compliance report was submitted vide our letter (699/25112024/HMD/MoEFCC) dated 25/11/2024 sent through email at iro.gandhingr-mefccatgov.in dated 01.12.2024.		Date: 19/05/2025
81	Statutory compliance	Monitor the criteria pollutants level namely; PM (PM10 &PM2.5 in case of ambient AAQ), SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company
PPs Submission: Complied Ambient air quality monitoring and all stacks emissions quality monitoring is being done regularly and reports are being submitted to GPCB. Online display board provide at main gate to display online ambient air quality and stack emissions for disclosure to the public.		Date: 19/05/2025
82	Statutory compliance	The project Proponent shall submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e mail) to the Regional office of MoEF&CC ,the respective Zonal office of CPCB and the SPCB
PPs Submission: Complied Six monthly compliance report is submitted to MoEFCC, Gandhinagar regularly. Last compliance report was submitted vide our letter (699/25112024/HMD/MoEFCC) dated 25/11/2024 sent through email at iro.gandhingr-mefccatgov.in dated 01.12.2024.		Date: 19/05/2025
83	Statutory compliance	The project Proponent shall submit the environmental statement for each financial Year in Form V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules ,1986, as amended subsequently and put on the website of the company.
PPs Submission: Complied Form V is regularly submitted to GPCB. Please Refer Form-V for FY 23-24 as Annexure-VI.		Date: 19/05/2025
84	MISCELLANEOUS	The project Proponent shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project and the date of commencement of the land development work.

PPs Submission: Complied Not applicable as this project is only operationalization of existing gas-based power plant.		Date: 19/05/2025
85	Corporate Environmental Responsibility	CER activities will be carried out as per OM No 22-65/2017-IA.III dated 30.09.2020 or as proposed by the PP in reference to public Hearing or as earmarked in the EIA /EMP report along with the detailed scheduled of implementation
PPs Submission: Complied RIL-HMD has taken up many activities for the upliftment of nearby community. The same is now undertaken by Reliance Foundation not only in our area but for entire India. Expenditure incurred to comply with the conditions stipulated by MoEFCC as well as by GPCB during the Yr 2024-25 is Rs. 45.997 crore for existing plants.		Date: 19/05/2025

General Conditions

Sr.No.	Condition Type	Condition Details
1	MISCELLANEOUS	The EC granted to the project is strictly under the provisions of the EIA Notification 2006 and its amendments . It does not tantamount/ construe to approvals/ consent / permissions, etc required to be obtained under any other Acts /Rules /Subordinate legislations,etc., as may be applicable to the project
PPs Submission: Complied Complied.		Date: 19/05/2025
2	MISCELLANEOUS	The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of Schedule -1 species in the study area , as applicable to the project and submit to Chief Wildlife Warden for approval. The recommendations shall be implemented in consultation with state Forest/Wildlife Department in a time bound manner.
PPs Submission: Complied In process of submitting site specific bio-diversity conservation plan of study area to Chief Wildlife Warden. Not applicable.		Date: 19/05/2025
3	MISCELLANEOUS	No further expansion or modifications in the plant Other than mentioned in EIA notification , 2006 and its amendments , shall be carried out without prior approval of the Ministry of Environment ,Forest and Climate Change. In case of deviations or alterations in the project proposal from those 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.
PPs Submission: Complied Agree to comply.		Date: 19/05/2025
4	ENERGY PRESERVATION MEASURES	The energy source for lighting purpose shall be preferably LED based , or advance having preference in energy conservation and environment betterment.
PPs Submission: Complied LED bulbs are already used for lighting. Energy conservation schemes are being implemented.		Date: 19/05/2025

5	AIR QUALITY MONITORING AND PRESERVATION	The location 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 each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.

PPs Submission: Complied The site has established 7 AAQ monitoring stations within petrochemical complex based on the mathematical modelling studies carried out by NEERI considering wind direction and the maximum ground level concentration. An intimation letter is submitted to GPCB on 03.06.1992. The values are on 24 hrs average; however, the NAAQS specifies annual average for comparison. Details of AAQ and CAAQMS data can be referred as Annexure-II.	Date: 19/05/2025

6	Noise Monitoring & Prevention	The overall noise levels in and around the plant area shall be kept 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 dB A(day time) and 70 dBA (day time) and 70 dBA (night time) .

PPs Submission: Complied The ambient noise level monitoring is being carried out regularly. Maximum Noise level found at periphery of RIL HMD in the range of 44.2 to 69.2 dBA (Leq) during daytime and 42.8 to 65.5 dBA (Leq) during nighttime within reporting period Oct24 - Mar25. Noise levels are found well with-in the stipulated norms. Workplace noise levels are monitored and required precautions are taken to avoid exposure.	Date: 19/05/2025

7	WATER QUALITY MONITORING AND PRESERVATION	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and to utilize the same for process requirements.

PPs Submission: Complied We have implemented a rainwater collection and storage facility in the existing plants to reduce water drawl from the river to that extent. Surface runoff and roof top rainwater collection scheme is implemented at Rel Pipe plant, POY cooling towers, and Raw Water-2 storm channel. Same will be extended for new projects to reduce freshwater requirements.	Date: 19/05/2025

8	Human Health Environment	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.

PPs Submission: Complied The chemical handling related safety and health training is imparted to all workers 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. All RIL Hazira employees are imparted safety training through induction and refresher training on safe work practices, safe chemical handling and use of PPEs. Pre-employment and periodical medical examination is carried out by OHC on a regular basis and records are maintained as per the Gujarat Factories Act and Rules.	Date: 19/05/2025

9	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 Environment management, and risk mitigation measures relating to the project shall be implemented.

PPs Submission: Complied All the environmental protection measures and safeguards proposed in the documents submitted to	Date: 19/05/2025

the ministry are being complied for power plant . All recommendations made in the EIA/EMP in respect of environment management and risk mitigation measures are being compiled for power plant.		
10	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
PPs Submission: Complied RIL-HMD has taken up many activities for the up-liftment of nearby community. The same is now being undertaken by Reliance Foundation not only in our area but for entire India. RIL-HMD has taken up many activities for the up-liftment of nearby community. The same is now being undertaken by Reliance Foundation not only in our area but for entire India.		Date: 19/05/2025
11	Corporate Environmental Responsibility	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
PPs Submission: Complied Various eco-developmental measures like Rain water harvesting, Plantations, training etc have been taken up by Reliance Foundation along with community welfare measures in the project area as well as for entire India.		Date: 19/05/2025
12	MISCELLANEOUS	A separate Environment Management Cell (having qualified person with Environmental Science /Environment 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.
PPs Submission: Complied A separate Environment Cell headed by Environment Head with environment qualification and more than 20 years of experience has been established for environment management activities of existing plant and the same will cater to the need for the expansion projects. The cell is supported by qualified Environment professionals (Env.Engg). Environmental monitoring and analysis done in laboratory.		Date: 19/05/2025
13	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.
PPs Submission: Complied Adequate funds have been allocated for implementing environmental management and socio-economic activities. Expenditure incurred to comply with the conditions stipulated by MoEFCC as well as by GPCB during the Yr 2024-25 is Rs. 45.997 crore for existing plants. Same will be continued for proposed projects. Funds allocated for environment management/ pollution control measures are spent for such measures only and are not diverted for any other purpose		Date: 19/05/2025
14	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
PPs Submission: Complied Copies of the Environmental Clearance submitted to Mora Panchayat, Zilla Parishad/Municipal		Date: 19/05/2025

Corporation, Urban local Body and the local NGO etc.		
15	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 and 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
PPs Submission: Complied Six monthly compliance report is submitted to MoEFCC, Gandhinagar regularly. Last compliance report was submitted vide our letter (699/25112024/HMD/MoEFCC) dated 25/11/2024 sent through email at iro.gandhingr-mefccatgov.in dated 01.12.2024.		Date: 19/05/2025
16	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& CC by email
PPs Submission: Complied Form V is regularly submitted to GPCB. Please Refer Form-V for FYr 23-24 as Annexure-VI.		Date: 19/05/2025
17	Statutory compliance	The project proponent shall inform the public that project has been accorded environment clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of 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 Public have been informed about the grant of Environment clearance through the advertisement in the local newspaper dated 05/11/2022 and copy of advertisement is submitted to ministry. Public have been informed about the grant of Environment clearance through the advertisement in the local newspaper dated 05/11/2022 and copy of advertisement is submitted to ministry.		Date: 19/05/2025
18	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.
PPs Submission: Complied Noted and agree to comply.		Date: 19/05/2025
19	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 and agree to comply.		Date: 19/05/2025

20	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 condition is not found satisfactory.

PPs Submission: Complied Noted and agree to comply.	Date: 19/05/2025

21	MISCELLANEOUS	Concealing factual data or submission of false/fabricated data and failure to comply with any of the condition mentioned above may results in withdrawal of this clearance and attract action under the provision of Environment (Protection) Act ,1986

PPs Submission: Complied Noted.	Date: 19/05/2025

22	MISCELLANEOUS	The 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: 19/05/2025

23	MISCELLANEOUS	The above conditions will be enforced, inter alia under the provisions of the water (Prevention & Control of Pollution) Act, 1974, the Air (prevention &8 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: 19/05/2025

24	MISCELLANEOUS	This issues with the approval of the competent authority

PPs Submission: Complied Noted.	Date: 19/05/2025

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	All Annexures are added as an additional attachment.

Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.

Half Yearly Compliance Report
2025
01 Jun(01 Oct - 31 Mar)

Acknowledgement

Proposal Name	Grant of EC to the proposed Project activity under the provision of EIA Notification 2006-reg.(Expansion and Debottlenecking of Existing Petrochemical complex at Hazira)
Name of Entity / Corporate Office	RELIANCE INDUSTRIES LIMITED
Village(s)	Limla (CT)
District	SURAT

Proposal No.	IA/GJ/IND2/289949/2021
Plot / Survey / Khasra No.	
State	GUJARAT
MoEF File No.	J-11011/40/2015-IA II (I)

Category	Industrial Projects - 2
Sub-District	Chorasi
Entity's PAN	*****5055K
Entity name as per PAN	RELIANCE INDUSTRIES LIMITED

Compliance Reporting Details

Reporting Year 2025

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	Actual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	398.32	398.32
Total	398.32	398.32

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	PVC WET RESIN	Tons per Annum (TPA)	N/A	12,166	345	
2	ETHYLENE OXIDE (EO)	Tons per Annum (TPA)	N/A	2,40,000	1,19,638	
3	METHYL ACETATE	Tons per Annum (TPA)	N/A	30,162	0	
4	PTA (SEMI SOLID LUMPS)	Tons per Annum (TPA)	N/A	9,328	3,566	
5	PTA (SWEEPING GRADE)	Tons per Annum (TPA)	N/A	1,122	36	
6	C6-C8 RAFFINATE/INTERNAL RECYLE TO FURNACE	Tons per Annum (TPA)	N/A	3,04,000	91,695	
7	POLYPROPYLENE	Tons per Annum (TPA)	N/A	5,00,000	4,34,311	
8	PP CATALYST	Tons per Annum (TPA)	N/A	300	196	
9	PLANT SWEEP/POLY LUMPS/MACHINE LUMPS	Tons per Annum (TPA)	N/A	54,000	779	
10	TIO2 DRY	Tons per Annum (TPA)	N/A	1,080	0	
11	HGR(INCLUDING DEG,TEG,MIX GLYCOL GRADE-1,2,3,4)	Tons per Annum (TPA)	N/A	78,000	57,349	
12	PURIFIED TEREPHTHALIC ACID (PTA)	Tons per Annum (TPA)	N/A	21,00,000	17,89,713	
13	C4s INCLUDING LPG	Tons per Annum (TPA)	N/A	2,45,960	1,53,849	
14	VINYL CHLORIDE MONOMER (VCM)	Tons per Annum (TPA)	N/A	4,75,000	3,52,902	
15	POLY ETHYLENE	Tons per Annum (TPA)	N/A	5,50,000	4,74,144	
16	TIO2 WET	Tons per Annum (TPA)	N/A	4,000	3,560	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	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 environment management and risk mitigation measures relating to the project shall be implemented

PPs Submission: Complied All the environmental protection measures and safeguards proposed in the documents submitted to the ministry are complied for units which are debottlenecked. Same will be complied for expansion projects. All recommendations made in the EIA/EMP in respect of environment management and risk mitigation measures are compiled for units which are debottlenecked. Same will be complied for expansion projects.	Date: 18/05/2025

2	Statutory compliance	PP shall comply with all the environmental conditions stipulated in the existing Environment Clearance issued

PPs Submission: Complied All the environmental conditions stipulated in the existing Environment Clearances are being complied. Six monthly compliance report is being submitted to MoEFCC, RO, Gandhinagar regularly. Last compliance report was submitted vide our letter (699/25112024/HMD/MoEFCC) dated 25/11/2024 sent through email at iro.gandhingr-mefccatgov.in dated 01.12.2024.	Date: 18/05/2025

3	Statutory compliance	PP shall conduct 3D modelling studies for determining risk assessment and submit the report within 6 months to ministry.

PPs Submission: Complied 3D modelling studies will be undertaken once detail engineering of all the proposed new projects get completed.	Date: 18/05/2025

4	Statutory compliance	NOC from the concerned Local authority for surface water supply shall be obtained before start of the construction of plant, state pollution control board /Pollution control committees shall not issue the Consent to Operate (CTO) under Air (Prevention and control of pollution) Act and water (Prevention and Control of pollution) Act till the project proponent shall obtain such permission.

PPs Submission: Complied Complied. Necessary approval has been obtained from Narmada, Water Resources, water supply and Kalpsar dept of Govt of Gujarat. The average freshwater requirement for the existing RIL-HMD complex was 1,22,263 KL/day (27.17 MGD) during the reporting period.	Date: 18/05/2025

5	AIR QUALITY MONITORING AND PRESERVATION	As proposed, additional 15 stacks attached to RTOs & DFTOs, and 2 stacks attached to Thermal Oxidizers shall be installed. 6 Stacks of CPP (HRSG, GT By-Pass) will be operationalized for expansion of CPP capacity. For the 15 Proposed stacks of Regenerative Thermal Oxidizer with low NOx burners, RTO with low NOx burners and HPCCU shall be provided.

PPs Submission: Complied Stacks attached to PTA plant, Thermal Oxidiser are commissioned and operationalized. Balance stacks are pertaining to Carbon Fiber plant which is yet not commissioned. 6 stacks of CPP are operationalized. Will be provided as proposed expansion project is yet not commissioned.	Date: 18/05/2025

6	AIR QUALITY	As Proposed adequate APCM like Cyclone Separator & wet

	MONITORING AND PRESERVATION	Scrubber, Carbonate Flash Knock out drum, Scrubber, Absorber, Bag Filters and CYC Shall be provided for additional vents, Scrubber. Additional 15 stacks attached to packed scrubbers at CF Plant shall be installed. Adequate stack height shall be provided to additional stacks for adequate dispersion of emissions.

PPs Submission: Complied Adequate APCMs are provided like Cyclone Separator, wet Scrubber, Carbonate Flash Knock out drum, Scrubber, Absorber, Bag Filters and Cyclone separators for existing stacks as per Process requirement of respective plant to control process emissions. The same will be complied with for proposed project. Will be complied with as detailed engineering is being carried out for the proposed Carbon Fiber. Will be complied with.	Date: 18/05/2025

7	WATER QUALITY MONITORING AND PRESERVATION	Total freshwater requirement shall not exceed 21,364 m3/day, proposed to be met from Tapi River. Necessary permission in this regard shall be obtained from the Concerned regulatory authority. The Fresh water requirement shall be reduced after installation of rainwater harvesting system in the unit/project area.

PPs Submission: Complied Condition will be complied with. Necessary approval has been obtained from Narmada, Water Resources, water supply and Kalpsar dept of Govt of Gujarat. The average freshwater requirement for the existing RIL-HMD complex was 1,22,263 m3/day (27.16 MGD) during the reporting period. We have implemented a rainwater collection and storage facility in the existing plants to reduce water drawl from the river to that extent. Surface runoff and roof top rainwater collection scheme is implemented at locations as per feasibility. Same will be extended for new projects to reduce freshwater requirements.	Date: 18/05/2025

8	WATER QUALITY MONITORING AND PRESERVATION	PP shall increase the recycle quantity of treated effluent from the expansion projects (~11,000 m3/day) to 50 % in 3 Years from the date of issue of EC from the proposed project.

PPs Submission: Complied Treated effluent is being recycled as cooling water make up and DM water production etc. in existing plants. Average effluent recycled for the period of Oct24 - Mar25 is: 11,066 m3/day (19.84 percent). Recycle target for treated effluent from the expansion projects is being built in the design.	Date: 18/05/2025

9	WATER QUALITY MONITORING AND PRESERVATION	Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEE&CC. Outcome from the report to be implemented for conservation scheme.

PPs Submission: Complied A separate Water Cell is existed in Central Technical Services (CTS) department who dedicatedly doing day to day water consumption monitoring and auditing activities in existing petrochemical complex. The cell is supported by qualified engineers. Various water conservation scheme known as WATCON are being implemented throughout the plant based on such review / audits and the same have been tracked for its performance. The same practice will cater to the need for the expansion projects. Comprehensive Water Audit has been carried out for the FY 2024-25 and attached as Annexure V.	Date: 30/05/2025

10	WATER QUALITY MONITORING AND PRESERVATION	Process effluent /any wastewater shall not be allowed to mix with storm water. Storm water drain shall be Passed through guard pond.

PPs Submission: Complied Will be complied for proposed projects which are yet not commissioned.	Date: 18/05/2025

11	Risk Mitigation and Disaster Management	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc . Flame arrestors shall be provided on tank farms, and solvent transfer to be done through pumps.

		PPs Submission: Complied Hazardous chemicals being stored as per suitability of chemicals in tanks, drums, carboys etc for existing plant and the same will be complied for proposed project. Flame arrestors installed as per requirement of process in all existing plants. Same will be complied for proposed projects. Date: 18/05/2025
12	WASTE MANAGEMENT	Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The Ash from boiler shall be sold to brick manufacturers/cement industry.
		PPs Submission: Complied Wastes generated from existing plants, such as Organic residue and Spent carbon are disposed for co-processing in cement plants. During the reporting period, Oct24 - Mar25: -Organic Residue : 380.1 MT -Spent Carbon : 23.77 MT Disposal is being done as per GPCB authorization. Same will be complied for proposed project. ETP sludge is being disposed off to the TSDF from existing plants. During the reporting period, 88.63 MT ETP sludge sent to the TSDF for disposal. Same practice will be continued for proposed project. This condition is not applicable for the proposed DBN and expansion projects. Date: 18/05/2025
13	AIR QUALITY MONITORING AND PRESERVATION	Regular VOC monitoring shall be done at vulnerable points
		PPs Submission: Complied VOCs are being regularly monitored in the existing plants through PID meters at non-point sources. The same practice will be extended for proposed projects. Date: 18/05/2025
14	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.
		PPs Submission: Complied Oily sludge is being collected and regularly disposed to cement industries for co processing. Same practice will be extended to new projects. Sludge is being collected in impermeable pit with proper leachate collection system. Same practice will be extended for proposed projects. Date: 18/05/2025
15	WATER QUALITY MONITORING AND PRESERVATION	Oil catches /oil traps shall be provided at all possible location in rain /storm water drainage system inside the factory premises.
		PPs Submission: Complied Catchers/oil traps (under/overflow flow and blocking gates) are provided at all possible locations in existing plants for prevention of oil carryover and recovery of oil. Same will be taken care for proposed projects. Date: 18/05/2025
16	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 of raw materials or as raw materials substitute 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 waste water generation
		PPs Submission: Complied We have adopted Best Available Technology, which minimizes wastes and emissions. Same will be carried out for proposed projects. All these points are being done as a process / operation requirement for existing plants. Date: 18/05/2025
17	GREENBELT	The green belt of 5-10 no.width shall be developed in more than 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
PPs Submission: Complied Complied. Around 123 Ha of green cover provided within Hazira Petrochemical complex which about 33 percent of total area. Plant species is being selected as per CPCB guidelines.		Date: 18/05/2025
18	GREENBELT	PP shall ensure that additional greenbelt development will be completed within 2 Years. Further, PP shall ensure land is available to Forest department for green belt development & maintained properly
PPs Submission: Complied Will be complied. Around 123 ha of green cover provided within Hazira Petrochemical complex. We have already consulted forest deptt for additional plantation (50ha) towards green belt development / carbon sink enhancement on forest land of villages Suvali, Hazira and Bhatlai nearest to RIL Hazira. However, till date forest dept could not identified suitable land for such plantation.		Date: 18/05/2025
19	Corporate Environmental Responsibility	As per Ministry OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility (Rs 1.0 Crores) 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 be completed within time as proposed .
PPs Submission: Complied Complied. RIL Foundation undertakes various developmental programs aimed at upliftment, infrastructure, education, health, and other social activities in nearby villages of our plant area. In addition, Reliance Foundation also carries out CSR activities on a nationwide scale. Will be complied with		Date: 18/05/2025
20	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 .
PPs Submission: Complied Complied. Employment are given to local people as per applicable laws in existing plants. Same will be continued for proposed projects. For the Skill development various initiatives were taken such as Capacity building exercise conducted by RIL HMD for the locals which was named -Project Samarthya, at SVNIT Engineering College, Surat. Such type of initiatives will be continued in future as well.		Date: 18/05/2025
21	MISCELLANEOUS	A separate environment Management Cell (having qualified person with Environment 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. EMC head shall report directly to Head of organization /managing Directors /CEO as per company hierarchy .
PPs Submission: Complied A separate Environment Cell headed by Environment Head with environment qualification and more than 20 years of experience has been established for environment management activities of existing		Date: 18/05/2025

plant and the same will cater to the need for the expansion projects. The cell is supported by qualified Environment professionals (Env.Engg). Environmental monitoring and analysis done in laboratory. Environment Head reports to Site President.		
22	Risk Mitigation and Disaster Management	The Unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per norms.
PPs Submission: Complied Adequate arrangement for protection from possible fire and explosion hazards are provided in manufacturing and material handling processes for existing plants. Same will be complied for proposed projects. Fire Fighting system are provided as per standards for existing plants. Same will be complied for proposed projects.		Date: 18/05/2025
23	AIR QUALITY MONITORING AND PRESERVATION	Continuous online (24*7) monitoring system for stack emission shall be installed for measurement of flue gas discharge and the pollutants concentrations and the data to be transmitted to the CPCB and SPCB server. In case of the treated effluent to be utilize for irrigation/gardening, real time monitoring system shall be installed at ETP outlet.
PPs Submission: Complied Continuous Online monitoring system for stack emission provided for measurement of flue gas discharge and the pollutant concentrations in existing Plants with connectivity to CPCB /GPCB server. Will be complied for proposed projects. Presently treated effluent is being utilized for cooling tower make up /DM water production. Real time monitoring system installed at ETP outlet with connectivity to CPCB /GPCB server.		Date: 18/05/2025
24	Human Health Environment	PP to set up occupational health center 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 provide with required safety kits/mask for personal protection.
PPs Submission: Complied Occupational Health Centre is already established at the existing plant. Occupational health surveillance of the workers is being done, and its records are maintained for existing plants. Same practice will be extended for upcoming projects. Pre-employment and periodical medical examination is carried out on a regular basis for employees and contractors and records are maintained as per the Gujarat Factories Act and Rules. Periodical medical check-up done for the RIL employees as well as contractors workers and records maintained for existing facility. Same practice will be extended for proposed projects. Required PPEs are provided to everyone and also job specific PPEs are provided to working people. Same practice will be complied for the new projects.		Date: 18/05/2025
25	AIR QUALITY MONITORING AND PRESERVATION	The National Emission standard for petrochemical (Basic & intermediates) issues by the ministry vide G.S.R 820 (E) dated 9th November 2012 as amended time to time shall be followed
PPs Submission: Complied Gaseous emissions from process units are monitored on monthly basis through MoEFCC approved laboratory and its result indicate conformance to the GPCB prescribed standards. Parameters also monitored periodically as per EPA 4th amendment rules. Same will be complied with during the new projects. Monitoring will be done as per applicable standards. Pls refer detailed Stack Monitoring report as Annexure-I.		Date: 18/05/2025
26	Risk Mitigation and Disaster Management	Recommendations of mitigation measures from possible accident shall be implemented based on risk assessment studies conducted for worst case scenarios using latest techniques.

PPs Submission: Complied All recommendations of mitigation measures made in the EIA/EMP report implemented for existing plants that have undergone DBN. Same will be complied for the proposed projects.		Date: 18/05/2025
27	MISCELLANEOUS	The project proponent shall develop R&D facilities to develop their own technologies for propylene and polypropylene processing.
PPs Submission: Complied We have a full-fledged R and D Dept who is developing different type of products and chemicals.		Date: 18/05/2025
28	MISCELLANEOUS	PP shall sensitize and create awareness among the people working within the project area as well as its surrounding area on the ban of Single use plastic in order to ensure the compliance of Notification published by MoEFCC on 12th August 2021. A A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority
PPs Submission: Complied Being complied with. Will be included once the construction work of the proposed project started.		Date: 18/05/2025

General Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	No further expansion or modification in the plant, other than mentioned in the EIA Notification ,2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
PPs Submission: Complied Noted.		Date: 18/05/2025
2	ENERGY PRESERVATION MEASURES	The energy source for lighting purpose shall be preferably LED based ,or advance having preference in energy conservation and environment betterment
PPs Submission: Complied LED bulbs are already being used for lighting. Energy conservation schemes are being implemented. Same will be complied for proposed projects.		Date: 18/05/2025
3	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 vix.75dBA(day time) and 70 dBA(night time).
PPs Submission: Complied Low noise generating equipment have been selected in the design stage itself. Noise control measures such as acoustic hoods, silencers etc. are provided at high noise generating source within the plant. The ambient noise level monitoring is being carried out regularly. Maximum Noise level found at periphery of RIL HMD in the range of 44.2 - 69.2 dBA (Leq) during daytime and 42.8 -		Date: 18/05/2025

65.5 dBA (Leq) during nighttime within reporting period Oct24 - Mar25. Noise levels are found well with-in the stipulated norms. Workplace noise levels are monitored and required precautions are taken to avoid exposure.			
4	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 village 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.	
PPs Submission: Complied Complied as all relevant measures for improvement of socio-economic condition has been taken up by Reliance Foundation in surrounding area. Complied. Various eco-developmental measures like Rain water harvesting, Plantations, training etc have been taken up by Reliance Foundation along with community welfare measures in the project area as well as for entire India.			Date: 18/05/2025
5	MISCELLANEOUS	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the condition stipulated by the Ministry of Environment, Forest and Climate Change as well as the state Government along with the implemented 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 Adequate funds have been allocated for implementing environmental management and socio-economic activities. Expenditure incurred to comply with the conditions stipulated by MoEFCC as well as by GPCB during the during the Yr 2024-25 is Rs. 45.997 crore for existing plants. Same will be continued for proposed projects Funds allocated for environment management/ pollution control measures are spent for such measures only and are not diverted for any other purpose.			Date: 18/05/2025
6	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.	
PPs Submission: Complied Copies of the Environmental Clearance submitted to Mora Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO etc.			Date: 18/05/2025
7	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	
PPs Submission: Complied Six monthly compliance report is submitted to MoEFCC, Gandhinagar regularly. Last compliance report was submitted vide our letter (699/25112024/HMD/MoEFCC) dated 25/11/2024 sent through email at iro.gandhingr-mefccatgov.in dated 01.12.2024. Six monthly compliance report is submitted to MoEFCC, Gandhinagar regularly. Last compliance report was submitted vide our letter (699/25112024/HMD/MoEFCC) dated 25/11/2024 sent through email at iro.gandhingr-mefccatgov.in dated 01.12.2024.			Date: 18/05/2025
8	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 shall also be sent to the respective Regional Office of MoEF&CC by e mail
PPs Submission: Complied Form V is regularly submitted to GPCB. Please Refer Form-V for FY 23-24 as Annexure-VI.		Date: 18/05/2025
9	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 ttps://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 locally concerned and a copy of the same shall be forwarded to the concerned Regional officer of the Ministry.
PPs Submission: Complied Public have been informed about the grant of Environment clearance through the advertisement in the local newspaper dated 05/11/2022 and copy of advertisement is submitted to ministry. Public have been informed about the grant of Environment clearance through the advertisement in the local newspaper dated 05/11/2022 and copy of advertisement is submitted to ministry.		Date: 18/05/2025
10	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
PPs Submission: Complied Noted.		Date: 18/05/2025
11	MISCELLANEOUS	This Environmental Clearance is granted subject to final outcome of Hon’ble Supreme Court of India, Hon’able 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: 18/05/2025
12	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 condition is not found satisfactory.
PPs Submission: Complied Noted.		Date: 18/05/2025
13	MISCELLANEOUS	Concealing factual data or submission of false/fabricated data and failure to comply with any of the condition mentioned above may results in withdrawal of this clearance and attract action under the provision of Environment (Protection) Act ,1986
PPs Submission: Complied Noted.		Date: 18/05/2025

14	MISCELLANEOUS	The 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: 18/05/2025

15	MISCELLANEOUS	The above conditions will be enforced, inter alia under the provisions of the water (Prevention & Control of Pollution) Act, 1974, the Air (prevention &8 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: 18/05/2025

16	MISCELLANEOUS	This issues with the approval of the competent authority

PPs Submission: Complied Noted.	Date: 18/05/2025

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	All Annexures are attached as an additional attachment.

Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.

Stack Emission Data									Annexure -I
PP Plant	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min.**	**Max.**	**Average**
Vent Absorber									
HCl in mg/Nm3	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

Stack Emission Data									Annexure-I
PVC Plant	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min.**	**Max.**	**Average**
DRYER LINE -I									
Particulate Matter mg/Nm3	124.85	1.62	84.95	90.54	51.92	7.51	1.62	124.85	60.23
DRYER LINE -II									
Particulate Matter mg/Nm3	17.91	17.52	45.68	31.94	26.16	30.31	17.52	45.68	28.25
EDC Cracking Furnace - A									
Particulate Matter mg/Nm3	4.42	2.94	3.46	6.07	5.36	7.49	2.94	7.49	4.96
HCl in mg/Nm3	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Cl2 in mg/Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
HC in mg/Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
EDC Cracking Furnace -B									
Particulate Matter mg/Nm3	3.86	4.66	4.09	6.76	3.51	2.42	2.42	6.76	4.22
HCl in mg/Nm3	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Cl2 in mg/Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
HC in mg/Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
EDC Cracking Furnace -C									
Particulate Matter mg/Nm3	2.76	4.36	5.26	6.15	4.74	10.09	2.76	10.09	5.56
HCl in mg/Nm3	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Cl2 in mg/Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
HC in mg/Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VCM Incinerator									
Particulate Matter mg/Nm3	7.51	*	11.69	4.95	8.18	22.84	4.95	22.84	11.03
HCl in mg/Nm3	5.40	*	4.12	4.89	4.12	6.43	4.12	6.43	4.99
Cl2 in mg/Nm3	BDL	*	BDL	0.201	0.545	0.238	BDL	BDL	BDL
VCM Incinerator - 2									
Particulate Matter mg/Nm3	5.38	4.67	8.42	11.19	11.79	8.93	4.67	11.79	8.40
HCl in mg/Nm3	8.23	9.01	7.21	5.92	11.06	3.09	3.09	11.06	7.42
Cl2 in mg/Nm3	0.037	0.090	0.104	0.127	0.261	0.187	0.04	0.26	0.13
Remark: BDL - Below Detectable Limit ,Min. Detectable limit for Cl2 > 0.07 mg/NM3,HC > 6.54 mg/NM3 The sign " * " Indicates that the particular stack was not in operation that period .									

Stack Emission Data								Annexure-I	
PE Plant:	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min.**	**Max.**	**Average**
DTA Vaporiser Stack - AX & BX									
Particulate Matter mg/Nm3	30.78	3.70	8.87	6.49	4.17	7.46	3.70	30.78	10.25
SO2 in mg/Nm3	24.02	32.03	28.83	32.03	1.60	14.41	1.60	32.03	22.15
NOx in mg/Nm3	121.17	127.67	129.68	132.83	119.80	129.37	119.80	132.83	126.75
DTA Vaporiser Stack - CX									
Particulate Matter mg/Nm3	3.79	5.76	34.12	5.70	5.47	6.70	3.79	34.12	10.26
SO2 in mg/Nm3	32.03	16.02	19.22	22.42	4.80	11.21	4.80	32.03	17.62
NOx in mg/Nm3	105.31	102.43	113.72	118.71	105.71	111.64	102.43	118.71	109.59
Relpippe Plant									
Unloading Hopper	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min.**	**Max.**	**Average**
Particulate Matter mg/Nm3	*	*	*	*	*	*	*	*	*
Remark: The sign " * " Indicates that the particular stack was not in operation that period .									

Stack Emission Data									Annexure -I
CPP&U:	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min**	**Max**	**Average**
HRSG -I									
Particulate Matter (mg/Nm3)	*	*	*	*	*	*	*	*	*
SO2 (mg/Nm3)	*	*	*	*	*	*	*	*	*
NOx (mg/Nm3)	*	*	*	*	*	*	*	*	*
HRSG -II									
Particulate Matter (mg/Nm3)	*	*	*	*	*	*	*	*	*
SO2 (mg/Nm3)	*	*	*	*	*	*	*	*	*
NOx (mg/Nm3)	*	*	*	*	*	*	*	*	*
HRSG -III									
Particulate Matter (mg/Nm3)	*	*	*	*	*	*	*	*	*
SO2 (mg/Nm3)	*	*	*	*	*	*	*	*	*
NOx (mg/Nm3)	*	*	*	*	*	*	*	*	*
HRSG -IV									
Particulate Matter (mg/Nm3)	*	*	*	*	*	*	*	*	*
SO2 (mg/Nm3)	*	*	*	*	*	*	*	*	*
NOx (mg/Nm3)	*	*	*		*	*	*	*	*
HRSG -V									
Particulate Matter (mg/Nm3)	*	*	*	*	*	*	*	*	*
SO2 (mg/Nm3)	*	*	*	*	*	*	*	*	*
NOx (mg/Nm3)	*	*	*	*	*	*	*	*	*
HRSG -VI									
Particulate Matter (mg/Nm3)	*	2.92	*	*	*	*	2.92	2.92	2.92
SO2 (mg/Nm3)	*	NIL	*	*	*	*	NIL	NIL	NIL
NOx (mg/Nm3)	*	59.88	*	*	*	*	59.88	59.88	59.88
Remark:The sign" * " Indicate that the particular stack was not in operation during that period.									

Stack Emission Data									Annexure-I
POY:	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Min	Max	Average
DOW Vaporiser A									
Particulate Matter (mg/Nm3)	6.23	19.18	2.67	4.12	11.23	4.25	2.67	19.18	7.95
SO2 (mg/Nm3)	4.80	6.41	8.00	6.41	4.80	6.41	4.80	8.00	6.14
NOx (mg/Nm3)	75.10	79.25	74.06	78.53	77.75	66.57	66.57	79.25	75.21
DOW Vaporiser B									
Particulate Matter (mg/Nm3)	4.54	7.01	11.11	3.35	15.70	7.06	3.35	15.70	8.13
SO2 (mg/Nm3)	6.41	8.00	6.41	4.80	3.20	4.80	3.20	8.00	5.60
NOx (mg/Nm3)	71.33	78.35	67.35	72.14	69.81	64.12	64.12	78.35	70.52
DOW Vaporiser C									
Particulate Matter (mg/Nm3)	6.08	3.47	6.43	6.13	3.13	4.22	3.13	6.43	4.91
SO2 (mg/Nm3)	3.20	4.80	3.20	8.00	6.41	8.00	3.20	8.00	5.60
NOx (mg/Nm3)	73.37	73.52	78.94	75.18	78.58	74.31	73.37	78.94	75.65
DOW Vaporiser D									
Particulate Matter (mg/Nm3)	4.93	3.09	3.02	6.58	60.37	3.01	3.01	60.37	13.50
SO2 (mg/Nm3)	8.00	6.41	8.00	9.61	11.21	9.61	6.41	11.21	8.81
NOx (mg/Nm3)	77.16	83.49	72.56	84.93	92.25	67.66	67.66	92.25	79.68
DOW Vaporiser E									
Particulate Matter (mg/Nm3)	10.24	4.49	6.46	6.64	4.12	4.60	4.12	10.24	6.09
SO2 (mg/Nm3)	9.61	11.21	12.81	14.41	8.00	14.41	8.00	14.41	11.74
NOx (mg/Nm3)	89.35	89.32	94.54	90.22	75.95	84.54	75.95	94.54	87.32
DOW Vaporiser F									
Particulate Matter (mg/Nm3)	6.93	4.18	4.18	5.52	6.67	*	4.18	6.93	5.50
SO2 (mg/Nm3)	NIL	1.60	3.20	3.20	4.80	*	1.60	4.80	3.20
NOx (mg/Nm3)	68.29	68.36	63.00	64.74	72.37	*	63.00	72.37	67.35
NG-3 Plant :									
HTF-I									
Particulate Matter (mg/Nm3)	2.79	3.71	2.85	3.29	4.08	4.72	2.79	4.72	3.57
SO2 (mg/Nm3)	16.02	12.81	9.61	4.80	6.41	9.61	4.80	16.02	9.88
NOx (mg/Nm3)	71.82	78.34	74.16	77.61	80.10	84.72	71.82	84.72	77.79
HTF-II									
Particulate Matter (mg/Nm3)	4.75	*	20.36	2.82	*	6.92	2.82	20.36	8.71
SO2 (mg/Nm3)	16.02	*	8.00	6.41	*	6.41	6.41	16.02	9.21
NOx (mg/Nm3)	76.84	*	77.19	73.81	*	75.66	73.81	77.19	75.88
HTF-III									
Particulate Matter (mg/Nm3)	3.66	3.41	5.32	5.88	8.69	6.13	3.41	8.69	5.52
SO2 (mg/Nm3)	8.00	14.41	11.21	8.00	8.00	4.80	4.80	14.41	9.07
NOx (mg/Nm3)	82.39	80.33	83.69	82.02	83.46	68.29	68.29	83.69	80.03
Remark: The sign " * " Indicates that the particular stack was not in operation that period .									

Stack Emission Data									Annexure I
CP10/11:	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min**	**Max**	**Average**
DOW Vaporiser A									
Particulate Matter (mg/Nm3)	6.86	11.62	2.47	23.63	5.84	5.90	2.47	23.63	9.39
SO2 (mg/Nm3)	6.41	4.80	3.20	4.80	6.41	6.41	3.20	6.41	5.34
NOx (mg/Nm3)	75.62	77.64	67.35	73.33	73.13	74.63	67.35	77.64	73.62
DOW Vaporiser B									
Particulate Matter (mg/Nm3)	4.44	9.30	5.01	4.04	4.51	7.54	4.04	9.30	5.81
SO2 (mg/Nm3)	9.61	12.81	4.80	6.41	8.00	9.61	4.80	12.81	8.54
NOx (mg/Nm3)	96.47	90.84	75.63	84.61	76.39	85.04	75.63	96.47	84.83
DOW Vaporiser C									
Particulate Matter (mg/Nm3)	6.25	6.54	6.68	8.09	4.62	3.36	3.36	8.09	5.92
SO2 (mg/Nm3)	8.00	6.41	4.80	6.41	9.61	4.80	4.80	9.61	6.67
NOx (mg/Nm3)	77.11	73.56	74.60	70.86	83.24	74.20	70.86	83.24	75.60
Heater -I									
Particulate Matter (mg/Nm3)	8.36	7.98	4.08	1.92	17.30	4.21	1.92	17.30	7.31
SO2 (mg/Nm3)	8.00	9.61	1.60	3.20	3.20	3.20	1.60	9.61	4.80
NOx (mg/Nm3)	70.70	82.39	70.86	71.67	76.25	72.31	70.70	82.39	74.03
Heater -II									
Particulate Matter (mg/Nm3)	2.39	6.39	12.69	10.10	11.43	3.63	2.39	12.69	7.77
SO2 (mg/Nm3)	24.02	8.00	4.80	6.41	4.80	1.60	1.60	24.02	8.27
NOx (mg/Nm3)	77.91	74.15	77.13	69.21	67.30	65.05	65.05	77.91	71.79
Heater -III									
Particulate Matter (mg/Nm3)	7.21	2.61	1.94	4.12	31.90	4.42	1.94	31.90	8.70
SO2 (mg/Nm3)	16.02	4.80	6.41	4.80	9.61	3.20	3.20	16.02	7.47
NOx (mg/Nm3)	78.36	71.96	80.02	63.11	85.15	75.47	63.11	85.15	75.68
Remark: The sign " * " Indicates that the particular stack was not in operation that period .									

Stack Emission Data									Annexure-I
Cracker Plant	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min**	**Max**	**Average**
Fresh Feed Furnace H -110									
Particulate Matter (mg/Nm3)	4.10	4.79	4.11	4.09	2.62	4.23	2.62	4.79	3.99
SO2 (mg/Nm3)	3.20	6.41	8.00	9.61	8.00	6.41	3.20	9.61	6.94
NOx (mg/Nm3)	72.03	74.23	72.47	79.38	73.83	67.48	67.48	79.38	73.24
Fresh Feed Furnace H -120									
Particulate Matter (mg/Nm3)	4.81	3.33	4.76	3.24	4.88	4.89	3.24	4.89	4.32
SO2 (mg/Nm3)	9.61	8.00	6.41	8.00	6.41	4.80	4.80	9.61	7.21
NOx (mg/Nm3)	78.60	77.91	70.23	72.59	81.21	77.09	70.23	81.21	76.27
Fresh feed Furnace H -130									
Particulate Matter (mg/Nm3)	4.91	3.67	2.30	2.93	4.96	4.66	2.30	4.96	3.91
SO2 (mg/Nm3)	11.21	4.80	9.61	11.21	12.81	6.41	4.80	12.81	9.34
NOx (mg/Nm3)	79.26	75.29	80.12	80.33	82.65	60.43	60.43	82.65	76.35
Fresh Feed Furnace H -140									
Particulate Matter (mg/Nm3)	3.95	3.91	4.41	2.49	4.03	4.74	2.49	4.74	3.92
SO2 (mg/Nm3)	1.60	3.20	8.00	6.41	9.61	3.20	1.60	9.61	5.34
NOx (mg/Nm3)	67.36	72.85	77.00	77.52	79.38	67.08	67.08	79.38	73.53
Fresh Feed Furnace -150									
Particulate Matter (mg/Nm3)	4.83	3.55	2.28	2.25	*	2.05	2.05	4.83	2.99
SO2 (mg/Nm3)	6.41	4.80	4.80	4.80	*	8.00	4.80	8.00	5.76
NOx (mg/Nm3)	77.35	80.29	75.87	76.91	*	69.07	69.07	80.29	75.90
Fresh Feed Furnace H -160									
Particulate Matter (mg/Nm3)	4.92	2.94	1.75	2.53	4.72	4.78	1.75	4.92	3.61
SO2 (mg/Nm3)	4.80	1.60	3.20	9.61	4.80	4.80	1.60	9.61	4.80
NOx (mg/Nm3)	73.56	69.07	65.73	81.71	76.99	73.06	65.73	81.71	73.35
Fresh Feed Furnace H -170									
Particulate Matter (mg/Nm3)	4.89	4.98	4.33	2.95	2.16	4.01	2.16	4.98	3.89
SO2 (mg/Nm3)	9.61	6.41	4.80	6.41	11.21	8.00	4.80	11.21	7.74
NOx (mg/Nm3)	70.88	70.12	69.98	73.83	82.43	75.08	69.98	82.43	73.72
Fresh Feed Furnace H -180									
Particulate Matter (mg/Nm3)	3.08	4.85	3.86	2.34	2.16	4.24	2.16	4.85	3.42
SO2 (mg/Nm3)	1.60	3.20	1.60	3.20	6.41	3.20	1.60	6.41	3.20
NOx (mg/Nm3)	81.52	62.13	61.35	70.14	66.69	70.45	61.35	81.52	68.71
Fresh Feed Furnace H -190									
Particulate Matter (mg/Nm3)	4.85	4.96	3.03	1.64	4.92	4.95	1.64	4.96	4.06
SO2 (mg/Nm3)	8.00	4.80	3.20	8.00	8.00	6.41	3.20	8.00	6.40
NOx (mg/Nm3)	69.67	73.76	72.01	77.52	78.81	67.46	67.46	78.81	73.21
Fresh Feed Furance H -192									
Particulate Matter (mg/Nm3)	4.65	4.72	4.12	2.86	3.87	4.65	2.86	4.72	4.15
SO2 (mg/Nm3)	6.41	3.20	3.20	6.41	4.80	4.80	3.20	6.41	4.80
NOx (mg/Nm3)	77.39	76.11	63.59	69.55	67.63	77.39	63.59	77.39	71.94
Fresh Feed Furnace H -194									
Particulate Matter (mg/Nm3)	4.65	4.91	2.82	4.11	4.98	4.57	2.82	4.98	4.34
SO2 (mg/Nm3)	4.80	6.41	4.80	4.80	3.20	6.41	3.20	6.41	5.07
NOx (mg/Nm3)	80.07	69.64	70.90	78.27	70.71	67.23	67.23	80.07	72.80

Cracker Plant	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Min	Max	Average
Fresh Feed Furnace H -196									
Particulate Matter (mg/Nm3)	4.16	3.92	4.83	4.91	4.79	3.60	3.60	4.91	4.37
SO2 (mg/Nm3)	6.41	8.00	6.41	9.61	9.61	17.62	6.41	17.62	9.61
NOx (mg/Nm3)	73.65	79.67	74.47	81.42	80.70	89.98	73.65	89.98	79.98
Recycled Feed Furnace H -111									
Particulate Matter (mg/Nm3)	4.59	*	3.86	3.26	4.91	4.76	3.26	4.91	4.28
SO2 (mg/Nm3)	3.20	*	11.21	11.21	9.61	8.00	3.20	11.21	8.65
NOx (mg/Nm3)	77.65	*	74.74	77.17	77.29	70.42	70.42	77.65	75.45
Recycled Feed Furnace H -121									
Particulate Matter (mg/Nm3)	4.90	2.94	4.37	3.36	2.32	4.97	2.32	4.97	3.81
SO2 (mg/Nm3)	6.41	4.80	6.41	8.00	6.41	4.80	4.80	8.00	6.14
NOx (mg/Nm3)	82.09	70.89	70.94	71.57	70.66	66.89	66.89	82.09	72.17
Recycled Feed Furnace H -131									
Particulate Matter (mg/Nm3)	4.52	2.50	2.04	4.78	4.86	2.64	2.04	4.86	3.56
SO2 (mg/Nm3)	4.80	6.41	8.00	9.61	11.21	9.61	4.80	11.21	8.27
NOx (mg/Nm3)	68.48	75.05	82.20	88.50	83.35	81.08	68.48	88.50	79.78
GHU H-740									
Particulate Matter (mg/Nm3)	4.30	4.38	4.56	2.76	3.38	4.03	2.76	4.56	3.90
SO2 (mg/Nm3)	8.00	9.61	41.64	30.43	24.02	19.22	8.00	41.64	22.15
NOx (mg/Nm3)	128.12	124.65	115.85	129.93	133.91	126.96	115.85	133.91	126.57
GHU H-710									
Particulate Matter (mg/Nm3)	4.94	4.86	4.92	3.13	3.41	3.61	3.13	4.94	4.15
SO2 (mg/Nm3)	11.21	12.81	11.21	9.61	12.81	11.21	9.61	12.81	11.48
NOx (mg/Nm3)	103.61	120.15	101.16	109.72	105.96	113.89	101.16	120.15	109.08
Aromatics H-301									
Particulate Matter (mg/Nm3)	*	4.72	4.39	*	*	*	4.39	4.72	4.56
SO2 (mg/Nm3)	*	11.21	9.61	*	*	*	9.61	11.21	10.41
NOx (mg/Nm3)	*	102.40	99.50	*	*	*	99.50	102.40	100.95
Remark: The sign " * " Indicates that the particular stack was not in operation that period .									

Stack Emission Data									Annexure -I
ETP:	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min**	**Max**	**Average**
Hazardous Waste Incinerator									
Particulate Matter mg/Nm3	*	*	*	*	8.49	31.98	8.49	31.98	20.24
SO2 in ppm	*	*	*	*	4.28	3.06	3.06	4.28	3.67
NOx in ppm	*	*	*	*	46.99	43.57	43.57	46.99	45.28
Sludge Dryer									
Particulate Matter mg/Nm3	24.52	27.96	18.40	36.31	21.60	17.95	17.95	36.31	24.46
Remark: The sign " * " Indicates that the particular stack was not in operation that period .									

Stack Emission Data									Annexure -I
MEG-I	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min.**	**Max.**	**Average**
CO2 Stripper Vent									
Particulate Matter mg/Nm3	11.32	1.82	4.15	9.98	3.77	BDL	1.8	11.3	6.2
CO in mg/ Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vent Absober									
HC in mg/ Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MEG-II									
CO2 Stripper Vent									
Particulate Matter mg/Nm3	3.98	3.84	9.43	4.28	2.97	BDL	3.0	9.4	4.9
CO in mg/ Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vent Absober									
HC in mg/ Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MEG-III									
CO2 Stripper Vent									
Particulate Matter mg/Nm3	3.80	11.40	8.23	5.14	1.35	BDL	1.4	11.4	6.0
CO in mg/ Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Vent Absober									
HC in mg/ Nm3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Remarks : Maximum accuray of GC during the time of analysis; actual values of CO are <11.45 mg/NM3 .									
BDL - Below Detectable Limit									
Detectable limit for PM > 0.01 mg/NM3									
Detectable limit for CO > 11.45 mg/NM3									
Detectable limit for HC > 6.54 mg/NM3									

Stack Emission Data									Annexure -I
PTA Plant -I	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min**	**Max**	**Average**
Off gas Expander									
PM (mg/Nm3)	3.89	7.56	21.96	3.14	1.89	7.01	1.89	21.96	7.58
SO2 (mg/Nm3)	20.82	8.00	11.21	9.61	8.00	35.23	8.00	35.23	15.48
NOx (mg/Nm3)	18.59	14.98	16.86	18.77	14.20	16.97	14.20	18.77	16.73
Vent Scrubber Purified Plant									
PM (mg/Nm3)	62.50	74.00	85.00	90.00	64.00	95.00	62.50	95.00	78.42
SO2 (mg/Nm3)	30.43	28.83	8.00	8.00	9.61	24.02	8.00	30.43	18.15
NOx (mg/Nm3)	22.25	22.47	21.36	22.15	23.07	20.73	20.73	23.07	22.01
Atmospheric Absorber									
PM (mg/Nm3)	6.47	2.32	11.62	6.49	6.58	9.50	2.32	11.62	7.16
SO2 (mg/Nm3)	19.22	19.22	24.02	20.82	16.02	32.03	16.02	32.03	21.89
NOx (mg/Nm3)	20.16	19.09	19.46	14.48	17.14	14.59	14.48	20.16	17.49
Regenerative Thermal Oxidizer (RTO) Stack									
Particulate Matter mg/Nm3	*	4.62	7.48	2.12	4.53	6.60	2.12	7.48	5.07
SO2 in PPM	*	17.74	NIL	4.89	4.89	39.77	4.89	39.77	16.82
NOx in PPM	*	40.31	33.96	38.76	36.24	42.62	33.96	42.62	38.38
PTA Plant-II:									
Incinerator Stack									
Particulate Matter mg/Nm3	*	*	*	*	*	*	*	*	*
SO2 in PPM	*	*	*	*	*	*	*	*	*
NOx in PPM	*	*	*	*	*	*	*	*	*
HCl in mg/NM3	*	*	*	*	*	*	*	*	*
Cl2 in mg/NM3	*	*	*	*	*	*	*	*	*
Off gas Expander									
PM (mg/Nm3)	5.17	4.89	13.33	4.04	6.54	9.60	4.04	13.33	7.26
SO2 (mg/Nm3)	9.61	35.23	32.03	35.23	32.03	32.03	9.61	35.23	29.36
NOx (mg/Nm3)	19.09	21.21	15.17	17.62	18.03	16.93	15.17	21.21	18.01
Vent Scrubber Purified plant									
PM (mg/Nm3)	87.50	81.00	75.50	79.50	95.00	50.50	50.50	95.00	78.17
SO2 (mg/Nm3)	30.43	24.02	24.02	36.83	22.42	28.83	22.42	36.83	27.76
NOx (mg/Nm3)	20.82	20.19	17.88	21.02	16.97	18.24	16.97	21.02	19.19
Atmospheric Absorber									
PM (mg/Nm3)	4.59	5.63	5.03	4.76	5.86	4.62	4.59	5.86	5.08
SO2 (mg/Nm3)	14.41	16.02	19.22	16.02	27.23	33.63	14.41	33.63	21.09
NOx (mg/Nm3)	15.58	17.90	18.13	14.20	21.12	18.97	14.20	21.12	17.65
Regenerative Thermal Oxidizer (RTO) Stack									
Particulate Matter mg/Nm3	2.92	1.79	4.59	6.38	2.71	BDL	1.79	6.38	3.68
SO2 in PPM	3.06	12.81	NIL	72.20	13.46	18.35	3.06	72.20	23.98
NOx in PPM	37.80	44.66	35.34	41.26	39.51	41.17	35.34	44.66	39.96

PTA Plant-III									
Incinerator Stack									
	Oct-24	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min**	**Max**	**Average**
Particulate Matter mg/Nm3	*	*	*	*	*	*	*	*	*
SO2 in PPM	*	*	*	*	*	*	*	*	*
NOx in PPM	*	*	*	*	*	*	*	*	*
HCl in mg/NM3	*	*	*	*	*	*	*	*	*
Cl2 in mg/NM3	*	*	*	*	*	*	*	*	*
Off gas Expander									
PM (mg/Nm3)	5.69	3.77	9.20	15.65	4.35	15.59	3.77	15.65	9.04
SO2 (mg/Nm3)	24.02	32.03	20.82	17.62	9.61	16.02	9.61	32.03	20.02
NOx (mg/Nm3)	22.38	19.02	23.39	21.42	21.64	17.28	17.28	23.39	20.86
Vent Scrubber Purified Plant									
PM (mg/Nm3)	17.69	7.60	24.33	12.53	31.28	18.72	7.60	31.28	18.69
SO2 (mg/Nm3)	32.03	33.63	8.00	9.61	32.02	32.02	8.00	33.63	24.55
NOx (mg/Nm3)	18.54	15.38	17.94	18.90	17.57	13.55	13.55	18.90	16.98
Atmospheric Absorber									
PM (mg/Nm3)	3.18	3.62	3.67	5.96	12.64	8.89	3.18	12.64	6.33
SO2 (mg/Nm3)	24.02	8.00	9.61	8.00	8.00	24.02	8.00	24.02	13.61
NOx (mg/Nm3)	21.85	11.53	22.01	17.75	14.02	19.96	11.53	22.01	17.85
Remark: The sign " * " Indicates that the particular stack was not in operation that period .									

Stack Emission Data									Annexure -I
SBR Plant :	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min**	**Max**	**Avg**
SBR Finishing Dry Area (X-1601)									
Styrene (mg/Nm3)	8.50	9.50	8.75	9.45	9.80	9.15	8.5	9.8	9.2
SBR Finishing Dry Area (X-2601)									
Styrene (mg/Nm3)	*	9.00	8.15	9.10	9.55	8.75	8.2	9.6	8.9
SBR Finishing Dry Area (X-3601)									
Styrene (mg/Nm3)	9.50	9.25	9.55	8.75	8.10	*	8.1	9.6	9.0
SBR Finishing Dry Area (X-4601)									
Styrene (mg/Nm3)	8.70	8.45	9.25	9.00	8.85	9.90	8.5	9.9	9.0
SBR FinishingWet Area (X-1610A)									
Styrene (mg/Nm3)	10.75	11.15	11.00	10.70	11.15	11.00	10.7	11.2	11.0
SBR FinishingWet Area (X-1610B)									
Styrene (mg/Nm3)	11.25	10.85	10.40	10.15	10.75	11.65	10.2	11.7	10.8
Remark: The sign " * " Indicates that the particular stack was not in operation that period .									

Stack Emission Data									Annexure - I
PBR Plant	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min**	**Max**	**Average**
Particulate Matter (mg/Nm3)	5.88	5.60	3.91	4.52	4.12	8.24	3.91	8.24	5.38
SO2 in PPM	4.28	4.89	3.67	2.45	3.06	3.67	2.45	4.89	3.67
NOx in PPM	18.76	20.56	18.14	20.37	18.82	20.26	18.14	20.56	19.49
Remark:The sign " * " Indicates that the particular stack was not in operation that period .									

Stack Emission Data									Annexure -I
CCPP	**Oct-24**	**Nov-24**	**Dec-24**	**Jan-25**	**Feb-25**	**Mar-25**	**Min**	**Max**	**Average**
Boiler - I									
Particulate Matter (mg/Nm3)	9.95	*	4.81	6.93	6.31	2.18	2.2	10.0	6.0
SO2 (mg/Nm3)	48.05	*	64.06	144.14	144.14	80.08	48.1	144.1	96.1
NOx(mg/Nm3)	140.84	*	151.17	194.17	188.52	185.76	140.8	194.2	172.1
Hg(mg/Nm3)	BDL	*	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Boiler - II									
Particulate Matter (mg/Nm3)	5.75	2.70	0.95	5.16	8.82	7.27	1.0	8.8	5.1
SO2 (mg/Nm3)	56.05	280.26	424.40	384.36	336.32	200.19	56.1	424.4	280.3
NOx(mg/Nm3)	161.95	216.32	224.56	232.14	219.54	215.22	162.0	232.1	211.6
Hg(mg/Nm3)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Boiler - III									
Particulate Matter (mg/Nm3)	4.62	5.11	1.45	4.04	9.68	2.26	1.5	9.7	4.5
SO2 (mg/Nm3)	40.04	128.12	104.10	64.06	200.19	72.07	40.0	200.2	101.4
NOx(mg/Nm3)	151.70	165.07	188.34	155.96	202.72	178.35	151.7	202.7	173.7
Hg(mg/Nm3)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Boiler - IV									
Particulate Matter (mg/Nm3)	5.35	6.84	1.00	7.98	11.31	8.04	1.0	11.3	6.8
SO2 (mg/Nm3)	48.05	264.25	360.34	208.20	208.20	280.26	48.1	360.3	228.2
NOx(mg/Nm3)	202.35	200.55	207.09	196.26	214.07	258.33	196.3	258.3	213.1
Hg(mg/Nm3)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Boiler - V									
Particulate Matter (mg/Nm3)	8.59	6.54	2.49	8.48	6.18	1.74	1.7	8.6	5.7
SO2 (mg/Nm3)	208.20	488.46	440.41	304.29	184.17	360.34	184.2	488.5	331.0
NOx(mg/Nm3)	208.95	231.91	249.17	213.47	199.69	237.54	199.7	249.2	223.5
Hg(mg/Nm3)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Remark: The sign " * " Indicates that the particular stack was not in operation that period .
BDL - Below Detectable Limit Detectable limit for Hg > 0.005 mg/NM3

Annexure II

AMBIENT AIR QUALITY MONITORING RESULTS

Oct '2024 to Mar'2025

LOCATION	DISTANCE FROM RIL	DIRECTION WRT RIL	MINIMUM VALUE	PERCENTILE					MAX. VALUE	AVG. VALUE
				10	25	50	75	95		
POLLUTANT -	**PM-10**			**Unit-Microgram/m3**						
RIL SITE										
*PP Plant			48	60.2	64.0	66.0	69.0	72.0	75.0	65.8
*RAW WATER POND			48	56.0	59.8	63.0	66.0	68.5	70.0	62.4
HAZIRA	6	SW	53	63.0	66.0	69.0	71.0	75.5	79.0	68.3
BHATLAI	5	NNW	52	62.1	65.0	67.0	71.0	74.0	77.0	67.3
ICHHAPORE	6	ENE	44	51.2	56.0	59.0	61.3	64.9	68.0	58.4
DUMAS	6	SSE	49	55.2	60.0	63.0	65.0	67.0	68.0	61.8

LOCATION	DISTANCE FROM RIL	DIRECTION WRT RIL	MINIMUM VALUE	PERCENTILE					MAX. VALUE	AVG. VALUE
				10	25	50	75	95		
POLLUTANT -	**PM2.5**			**Unit-Microgram/m3**						
RIL SITE										
*PP Plant			14.1	20.4	22.3	23.7	25.4	27.5	28.7	23.6
*RAW WATER POND			13.3	17.1	18.7	20.8	22.5	23.9	24.5	20.5
HAZIRA	6	SW	17.1	23.5	25.1	26.5	28.2	30.4	31.1	26.4
BHATLAI	5	NNW	17.6	21.3	23.6	25.4	27.0	28.9	30.4	25.2
ICHHAPORE	6	ENE	12.7	15.1	17.6	20.4	21.7	23.3	24.5	19.5
DUMAS	6	SSE	14.1	16.5	21.3	23.1	24.4	25.7	26.6	22.3

LOCATION	DISTANCE FROM RIL	DIRECTION WRT RIL	MINIMUM VALUE	PERCENTILE					MAX. VALUE	AVG. VALUE
				10	25	50	75	95		
POLLUTANT -	**SO2**			**Unit-microgram/m3**						
RIL SITE										
*PP Plant			16.8	22.5	23.5	24.7	26.6	29.6	31.3	25.0
*RAW WATER POND			15.3	18.3	19.7	21.4	22.8	25.8	27.2	21.5
HAZIRA	6	SW	19.4	24.8	26.2	28.0	29.4	31.3	32.3	27.7
BHATLAI	5	NNW	19.8	24.1	25.4	26.8	28.3	30.4	31.6	26.9
ICHHAPORE	6	ENE	15.4	18.1	19.8	21.5	23.3	24.7	25.4	21.4
DUMAS	6	SSE	16.2	19.4	21.5	23.5	24.8	26.6	28.6	23.0

LOCATION	DISTANCE FROM RIL	DIRECTION WRT RIL	MINIMUM VALUE	PERCENTILE					MAX. VALUE	AVG. VALUE
				10	25	50	75	95		
POLLUTANT -	**NO2**			**Unit-microgram/m3**						
RIL SITE										
*PP Plant			21.4	27.5	28.4	29.9	31.4	34.2	35.6	30.0
*RAW WATER POND			22.4	24.9	26.4	28.3	29.6	31.9	33.6	28.0
HAZIRA	6	SW	26.3	30.4	31.4	32.7	34.4	36.4	37.5	33.0
BHATLAI	5	NNW	25.8	30.2	31.1	32.2	33.5	35.7	37.4	32.3
ICHHAPORE	6	ENE	22.7	25.2	27.4	29.0	30.5	32.2	33.1	28.7
DUMAS	6	SSE	22.5	26.1	29.3	30.7	32.3	33.9	35.1	30.3

Annexure II

AMBIENT AIR QUALITY MONITORING RESULTS

Oct'2024 to Mar'2025

LOCATION	DISTANCE FROM RIL	DIRECTION WRT RIL	MINI VALUE	PERCENTILE					MAX. VALUE	AVG. VALUE
Pollutant -Benzene				10	25	50	75	95		
RIL SITE			Unit-microgram/m3							
*PP Plant			2.65	2.98	3.21	3.65	4.15	4.47	4.79	3.66
*RAW WATER POND			3.19	3.51	3.68	3.90	4.47	4.70	4.79	4.01
HAZIRA	6	SW	3.15	3.53	3.83	4.15	4.46	4.77	4.79	4.08
ICHHAPORE	5	NNW	2.41	2.89	3.19	3.51	3.95	4.29	4.47	3.56
DUMAS	6	ENE	3.19	3.51	3.75	4.10	4.47	4.75	4.79	4.04
BHATLAI	6	SSE	2.81	3.10	3.31	3.67	3.86	4.47	4.79	3.67

Annexure II

AMBIENT AIR QUALITY MONITORING RESULTS

Oct'2024 to Mar'2025

LOCATION	DISTANCE FROM RIL	DIRECTION WRT RIL	MINIMUM VALUE	PERCENTILE					MAX. VALUE	AVG. VALUE
				10	25	50	75	95		
POLLUTANT - Non Methane HC				**Unit-microgram/m3**						
RIL SITE			**Min**						**Max.**	**Avg.**
*PP Plant			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
*RAW WATER POND			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
HAZIRA	6	SW	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BHATLAI	5	NNW	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ICHHAPORE	6	ENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DUMAS	6	SSE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL - Below Detectable Limit

Detectable limit for Non Methane HC >61 microgram/m3

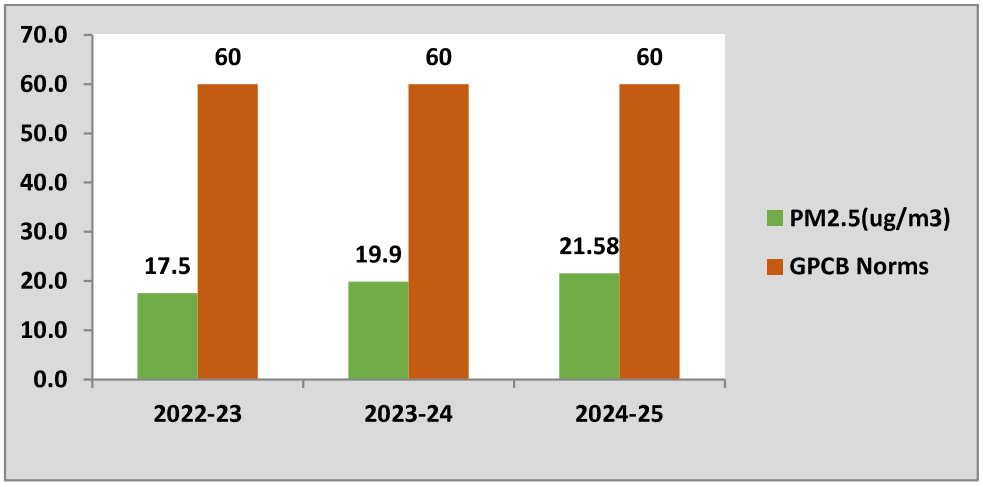
Annexure -II			
Continuous Ambient Air Quality Monitoring Station			
Location : Central lab ,RIL Hazira			
Oct-24 to Mar-25			
Oct-24			
PM2.5(µg/m3)	**PM10(µg/m3)**	**SO2(µg/m3)**	**NO2(µg/m3)**
27.15	52.15	10.3	9.36
Nov-24			
PM2.5(µg/m3)	**PM10(µg/m3)**	**SO2(µg/m3)**	**NO2(µg/m3)**
43.18	45.87	14.9	24.24
Dec-24			
PM2.5(µg/m3)	**PM10(µg/m3)**	**SO2(µg/m3)**	**NO2(µg/m3)**
38.21	47.69	15.81	22.17
Jan-25			
PM2.5(µg/m3)	**PM10(µg/m3)**	**SO2(µg/m3)**	**NO2(µg/m3)**
38.05	53.2	17.73	22.39
Feb-25			
PM2.5(µg/m3)	**PM10(µg/m3)**	**SO2(µg/m3)**	**NO2(µg/m3)**
39.27	49.3	20.77	28.54
Mar-25			
PM2.5(µg/m3)	**PM10(µg/m3)**	**SO2(µg/m3)**	**NO2(µg/m3)**
31.38	56.28	15.24	17.09

Annexure-III									
Treated Effluent Analysis from Oct'24 - Mar'25									
Sr. No.	Parameters	Permissible limits granted by GPCB	Unit	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25
				Values					
1	Colour	100	Pt-Co Scale in units	50	30	30	25	30	35
2	pH	6.5 to 8.5	oC	7.3	7.12	7.4	8.03	7.12	7.66
3	Total Suspended Solids	100	mg/liter	23	10	18	15	19	14
4	Oil and Grease	10	mg/liter	< 2	< 2	< 2	< 2	< 2	< 2
5	Phenolic Compounds	1	mg/liter	< 0.0005	< 0.0005	<0.0005	<0.0005	<0.0005	< 0.0005
6	Hexavalent Chromium	0.1	mg/liter	< 0.05	< 0.05	<0.05	<0.05	<0.05	< 0.05
7	Total Chromium	2	mg/liter	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
8	Copper	2	mg/liter	<0.02	< 0.02	<0.02	<0.02	<0.02	< 0.02
9	Zinc	5	mg/liter	0.214	0.138	0.138	0.099	0.099	0.091
10	Nickel	3	mg/liter	< 0.02	< 0.02	< 0.02	< 0.02	<0.02	< 0.02
11	Lead	0.1	mg/liter	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
12	Mercury	0.01	mg/liter	< 0.0006	< 0.0006	<0.0006	< 0.0006	<0.0006	< 0.0006
13	Cyanides	0.2	mg/liter	< 0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01
14	Flourides	1.5	mg/liter	1.43	1.13	1.29	1.17	0.98	1.13
15	COD	250	mg/liter	75.4	84.02	85.31	82.4	69.48	79.84
16	BOD (3 days 27°C)	50	mg/liter	21.86	24.29	19.6	18.1	17.26	20.16
17	Sulphides	2	mg/liter	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
18	Ammonical Nitrogen	50	mg/liter	3.16	2.97	5.24	4.95	3.58	5.13
19	Temperature	40	--	31.5	31.3	30.9	30.1	29.9	30.1
20	Bio-assay Test	90% survival of fish after 96 hour in 100 % effluent	% survival	100%	100%	100%	100%	100%	100%

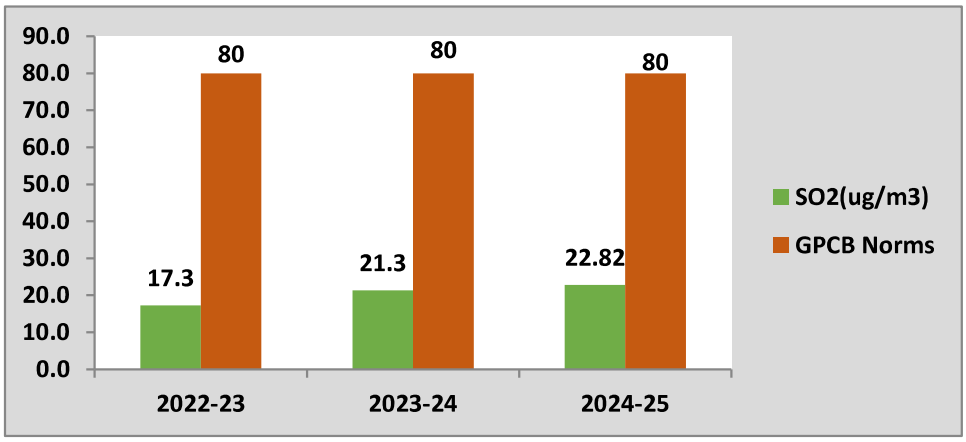
Annexure IV

Trend of PM10 (ug/m^3)

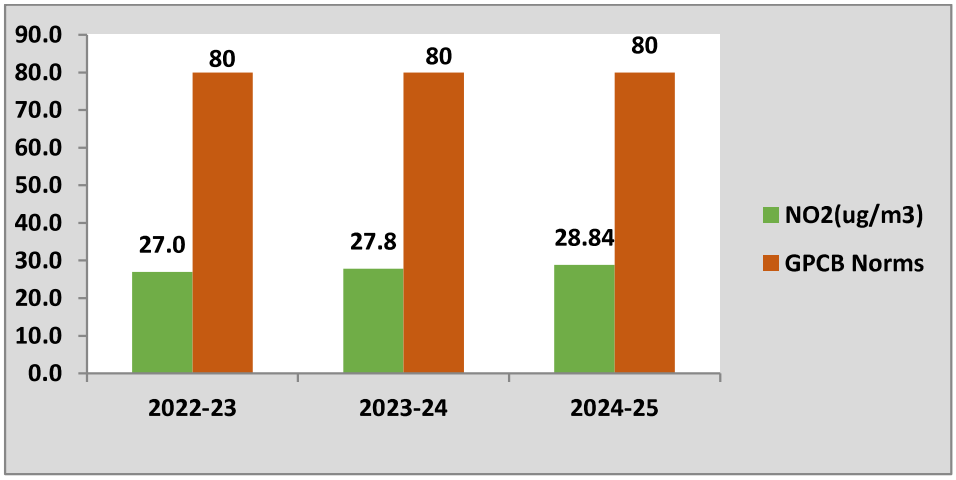
Trend of PM2.5 (ug/m^3)



Trend of SO2 (ug/m^3)



Trend of NO2((ug/m^3)



Annexure V

Reliance
Industries Limited

Water Audit
Hazira Manufacturing Division (HMD)
FY 2024-25

Date: 24th & 25th Apr'2025

Table of Contents

ABBREVATIONS

EC - Environmental Compliance
MGD - Million Gallons per Day
GIDC - Gujarat Industrial Development Corporation
ETP - Effluent Treatment Plant
RO - Reverse Osmosis
ISBL - Inside Battery Limit
BWRO - Brackish Water Reverse Osmosis
UF - Ultrafiltration
CIP - Cleaning in Place
COC - Cycle of Concentration
GCU - Gas Cracker Unit

1. EXECUTIVE SUMMARY

As a part of EC requirement, a comprehensive water audit was carried out at Hazira complex on 24-25 April'25. The complex includes Cracker Unit and downstream plants, PTA, Polyester etc. Water demand for this complex is being fulfilled by Kakrapar Right Bank Canal Division and water recovery from ETP RO.

The purpose of water audit is to analyze site water and effluent balance, identify areas of improvement and propose measures to minimize water usage & enhancing recycling. Methodology includes detail site water & effluent balance, on field observations, opportunities for recycling of water.

This audit identified areas such as water leakages, optimization of water uses in cooling tower and recycling opportunities in ETP.

2. INTRODUCTION

Reliance Industries Limited operates an integrated petrochemical complex located at Hazira, Gujarat, India. This complex currently has Cracker unit and downstream plants viz. MEG, PVC/VCM, PTA which manufacture polymers and fiber intermediates and polyester unit. This site has dedicated captive power plants, utilities generation facilities, Effluent treatment plant, tank farms, chemical jetty and warehouses for receipt of material and delivery of finished products.

HMD site has one sources to fulfil water requirement (1MGD:189 m3/hr)

35 MGD (158760 m3/day) through agreement with Kakrapar Right Bank Canal Division, Surat.

Tapti water is drawn from Intake Well at Variava pump house on the banks of river Tapti situated 95 km downstream of Ukai Dam. The water is transported to HMD Site through a 16 km long pipeline.

In addition, 2.4 to 2.5 MGD(~11232 m3/day) Water Recovery from ETP RO depending on effluent quality as a initiative for conservation of water intake.

3. WATER DEMAND

The major water requirement is –

1. Cooling water makeup
2. DM water and boilers
3. Fire water Makeup
4. Process water
5. Domestic purpose

Please refer ***Annexure-1*** for water consumption

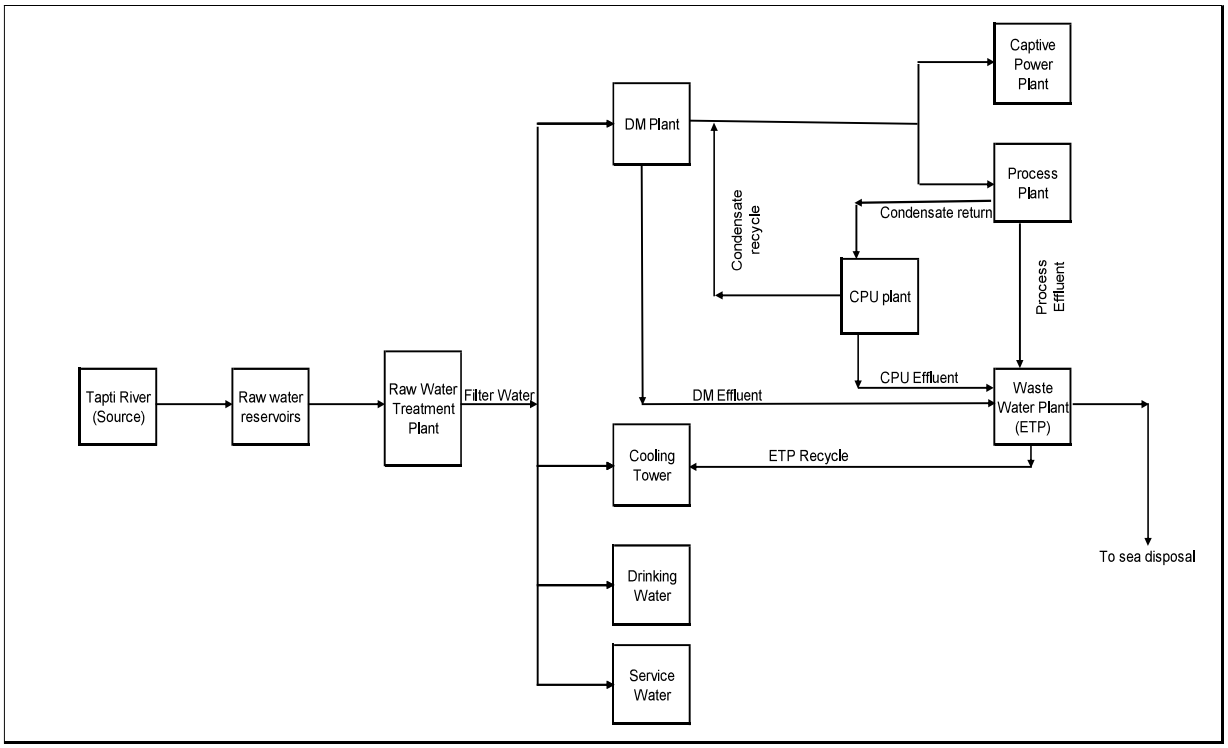
4. OBJECTIVE:

To analyze current water & effluent balance, identify areas of improvement and propose measures to minimize water use, increase water recycle and minimize environmental impact.

5. METHODOLOGY:

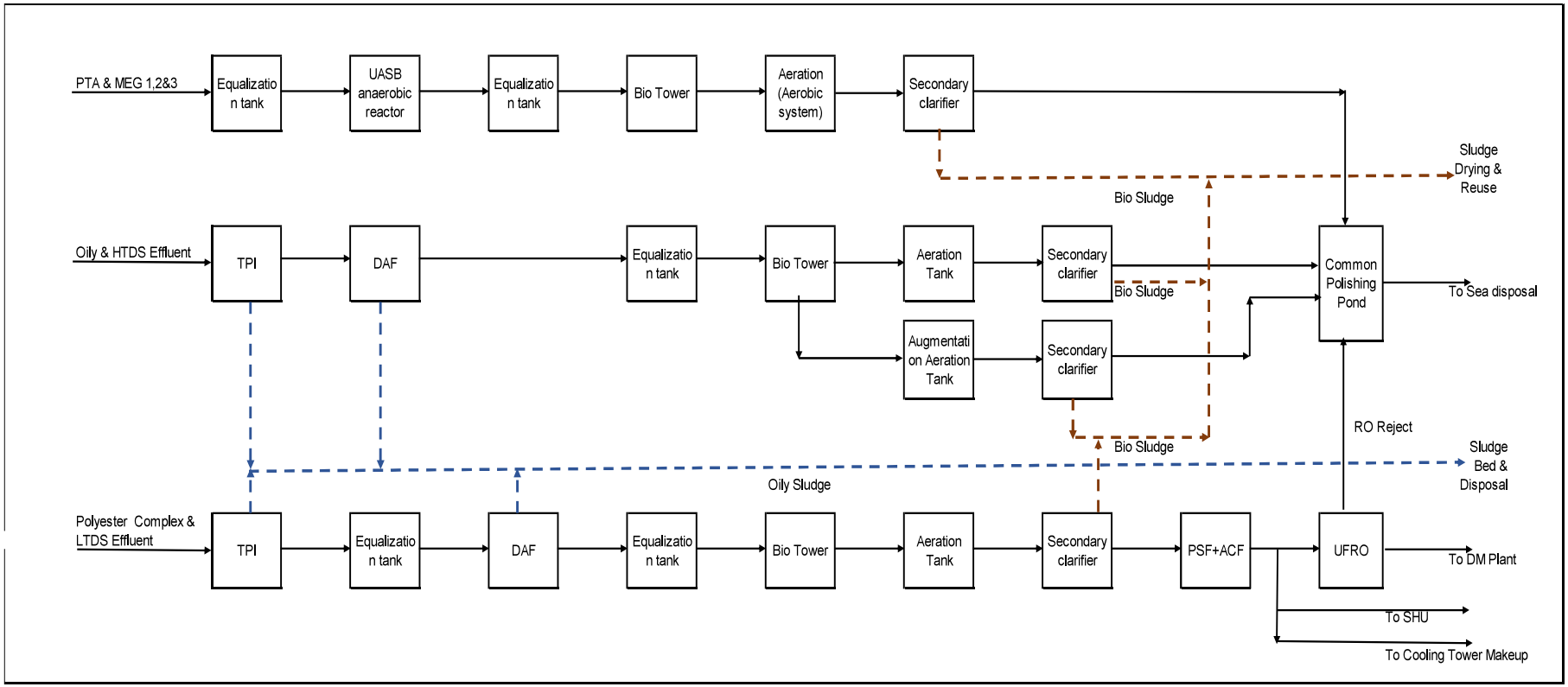
Methodology involves detail understanding of water balance across whole site, quality of water in, effluent balance, effluent in/out quality and site observation. Please refer audit protocol as ***Annexure-4***.

5a. Site block flow diagram



Please refer ***Annexure -2*** for Re-use of effluent and ***Annexure-3*** for average water consumption and effluent discharge.

5b. Site waste water treatment scheme:



- **Raw water parameter (Annual Average):**

Sl. No	Parameters	Unit	Specification
1	Conductivity	µS/cm	300-800
2	Ca-Hardness	mg/L	60-115
3	Chloride as (Cl)	mg/L	20-65
4	Silica as (SiO2)	mg/L	5-30
5	TOC	mg/L	2-6
6	Turbidity	NTU	3-25
7	pH	pH	7-8.5

- **ETP treated water Parameter (Typical Monthly Data):**

Sl. No	Parameters	Unit	Limit	Results
1	Color	Co-pt	100	35
2	pH		6.5-8.5	7.66
3	Total Suspended Solids	mg/L	100	14
4	Oil & Grease	mg/L	10	<2
5	Phenolic compound as C6H5OH	mg/L	1	<0.0005
6	Hexavalent Chromium as Cr+6	mg/L	0.1	<0.05
7	Total Chromium as Cr+3	mg/L	2	<0.025
8	Copper as Cu	mg/L	2.0	<0.02
9	Zinc as Zn	mg/L	5	0.091
10	Nickel as Ni	mg/L	3	<0.02
11	Lead as Pb	mg/L	0.1	<0.005
12	Mercury as Hg	mg/L	0.01	<0.0006
13	Cyanide as CN	mg/L	0.2	<0.01
14	Fluoride as F	mg/L	1.5	1.13
15	COD	mg/L	250	79.84
16	BOD(3°C @ 27°C)	mg/L	50	20.16
17	Sulphide as S	mg/L	2	<0.1
18	Ammoniacal nitrogen as NH3	mg/L	50	5.13
19	Temperature	°C	40	30.1
20	Bio Assay test	%	90% Survival of fish after 96 hours in 100% sample	100% Survival of fish after 96 hours in 100% sample

6. YEAR ON YEAR IMPROVEMENT IN WATER MANAGEMENT:

- Diversion of CP4/5 AHU condensate water into Jet water tank and utilize as Filter water make up. 132 m3/day
- Polyester process effluent is being treated in LTDS system and recycle as DM water production / CT make up -300 m3/day
- CP-11 Spinning AHU condensate water recycling scheme finalized and under implementation – 2.4 m3 /day
- All stream traps condensate water diverted into effluent pit and recycling with LTDS water at polyester.
- Reduction in Steam consumption in PSF plants through process optimization and trap replacement, Saving of 10.8 Ton/day.
- HTDS aeration lobe blower replacement by energy efficient screw blower, Power saving will be 137.9 KW
- To improve efficiency of Cooling Water pump GA1301 by refurbishment and corro-coating.CT1 Cooling water pump corrocoating is u/p (out of total 8 no' s of pumps, 5 pumps corrocoating already completed, 6th pump is under corrocoating, 2 no's of pumps are remaining), Power saving is approx 100 KW per pump.
- LTDS effluent received from MEG, PP, PE, PBR, PVC, Cracker, Butadiene and Butene-1 plants is reclaimed as DM Water in ETP RO- 6168 m3/day.
- Utilization of waste water from MEG in PTA-1/2 RTO as scrubbing medium to substitute DM water- 288 m3/day
- Reslurry water ratio optimization in pressure centrifuges based on quality in PTA 1/2/3-144 m3/day.
- Process optimization/dilution steam ratio adjustment etc in Cracker- 120 m3/day
- Process optimization/wash water adjustment etc. in Butene-1 and Butadiene-72 m3/day
- Stoppage of RFH vent loss (LP steam) in next shutdown opportunity in PE-24-144 m3/day
- Optimization of DM water makeup to pellet water tank in PP- 192 m3/day
- Optimization of DM water to latex stripper in recovery line in SBR- 24 m3/day
- Defective steam traps replacement and closed loop recovery- 408 m3/day
- Replacement of old underground fire water pipeline to above ground to conserve water from leakages in phased manner.

7. CONCLUSION & RECOMMENDATIONS

- Water leakages are regularly monitored, tracked and reviewed for timely arrest, to prevent water losses.
- Treated effluent recycling and reuse can be increased by improving ETP performance. HTDS ETP recycle & improvement study is taken up.
- Awareness with respect to water conservation amongst the workforce was evident during field round.
- Leakages in the water network which are identified during audit, to be timely attended to prevent water losses.

AUDIT TEAM:

Sr. No.	Team Member	Site	Department
1	Amit Kumar Nath	RCP	R&T Water
2	Parames Varan	RCP	R&T Water
3	Ishika Dey	RCP	R&T Environment
4	Chaitanya Gotmare	VMD	CTS Utility
5	Harshad Malani	HMD	CTS Utility
6	Parth Bhagat	HMD	CTS Utility
7	Chaitanyakumar Sheth	HMD	HSEF-Environment
8	Jyoti Patidar	HMD	HSEF-Environment
9	Ashish Sharma	HMD	HSEF-Environment

8. ANNEXURE

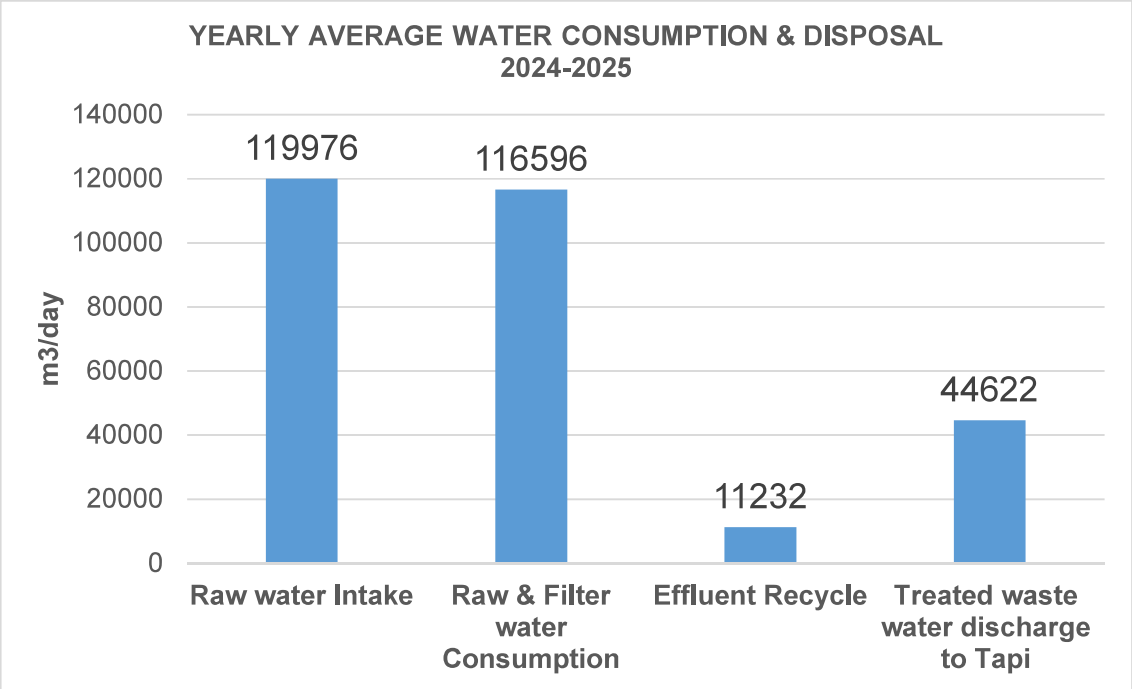
Annexure1: Water Consumption Breakup

Year 2024-2025		Water Consumption					
		Cooling Tower	DM	Fire Water	Drinking water	Service Water	Total
Q1	m3/day	67146	29546	4132	2880	7358	111062
Q2	m3/day	63639	33066	6095	2880	7562	113242
Q3	m3/day	64027	32789	10234	2880	7959	117888
Q4	m3/day	68664	33681	11545	2880	7419	124190

Annexure 2: Effluent Reuse

Year 2024-2025		Effluent recycle consumption			
		Cooling Tower	DM	SHU	Total
Q1	m3/day	2890	7248	91	10229
Q2	m3/day	5220	7357	96	12674
Q3	m3/day	5146	6509	105	11761
Q4	m3/day	2501	7657	108	10265

Annexure 3: Yearly Average Consumption(m3/day)



Annexure 4: Water Audit Questionnaire

Questions		Observations
Water Management System		
1	Water policy or any policy which commits to water conservation?	Yes, Environment Policy
2	What is the source of raw water for the site?	River water - Tapi (Surface water, Variav well)
3	Does the site has water distribution network layout?	Yes (Utilities distribution diagram, North plot / South plot)
4	Does the site have a water manager? What are the activities handled?	Yes, Assurance of treated water quality, management of CW treatment, boiler water treatment, effluent treatment, Compliance to GPCB norms, drive effluent recycle initiatives, review & finalize schemes for water conservation, approves specifications related to water & effluent treatment & etc. for the HMD complex.
5	Does the site have water accounting system in place?	Yes.- Daily water balance, monthly UGD & variance analysis
6	Does the site have monthly reviews on water consumption?	Yes, MPR - CPP & CTS
7	Does the site have leak detection and repair program in place for water management	Yes, Scheduled patrolling.
8	What are the training to enhance the awareness on water conservation activities?	In house training programmes to improve the awareness & water conservation drives & multiple trainings through external faculties to evaluate advance

		technologies & new Options. (Ion exchange Ltd, Euroteck, Ishan pariyavaran, Armstrong, Forbes Marshall)
9	How is awareness on water management being carried out?	Upgrading knowledge on initiatives within the site through discussion on PIOs. Exposure to engineers by participation in national exhibitions & online training sessions by vendors.
10	Is water metering facility available at site?	Yes
11	What is the frequency of meter calibration? What is the system for calibration check of water meter?	Yearly
12	Water consumption monitoring records available?	Yes
13	Is water consumption monitored at site?	Yes, Daily
14	What is the cycle of concentration of cooling tower?	5 COC is typical
15	Is water quality being monitored? What is the water treatment facility available?	Yes, Storage, Clarification & filtration.
16	What is the water consumption trend over the year and its pattern/analysis	Available
17	Does site carry out water balance?	Yes
18	What are the projects implemented to achieve the savings?	Refer point no 6.
19	Is effluent being reused at site? If yes, provide details	Yes, ~2.47 MGD of LTDS effluent is recycled as DM & Cooling tower make up.
20	Is there any plan to increase effluent reuse/recycle.	Yes, ~5.5 MGD of HTDS effluent.

Annexure VI

Reliance
Industries Limited

CIN # L17110MH1973PLC019786

Ref. No: RIL/HMD/HO/GPCB/2024-25/07
24th July 2024

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

Sub: Submission of Environmental Statement for FY 23-24 for Reliance Industries Ltd, Hazira, Surat (RIL XGN ID: 21170)

Dear Sir,

Please find enclosed the Environment Statement (Form-V) for the financial year ending on 31st March 2024 in accordance with The Environment (Protection) Act 1986.

Thanking you,

Yours faithfully,
for Reliance Industries Limited

Premal Shah
Head - Environment

Encl.: A/a

Hazira Manufacturing Division
Village-Mora, Post-Bhatha, Surat-Hazira Road, Dist. Surat (Gujarat), PIN: 394510
Tel.: +91 – 261 – 353 6959, 353 5999, 353 5086

Form V
(Rule 14 of EP Act 1986)

Environmental Statement for the financial year ending the 31st March 2024

PART - A

01. **Name & Address of the Owner/** : **Shri Hital R. Meswani**
Occupier of the industry operation or process : "Woodlands", Flat No. C-23/24,67
Peddar Road, Mumbai 400026

02. **Industry Category**
Primary (STC Code) -
Secondary (SIC Code) -

03. **Production Capacity**

Sr.No.	Plant	Capacity*
a.	Mono Ethylene Glycol (MEG)	7,20,000 MTPA
b.	Poly Vinyl Chloride (PVC)	4,75,000 MTPA
c.	Vinyl Chloride Monomer (VCM)	4,75,000 MTPA
d.	Poly Ethylene (PE)	5,50,000 MTPA
e.	Partially Oriented Yarn (POY) + Chips (including IDY, FDY)	4,90,000 MTPA
f.	Polyester Staple Fibre (PSF) + Chips	5,40,000 MTPA
g.	Poly Propylene (PP)	5,00,000 MTPA
h.	Pure Terepthalic Acid	21,00,000 MTPA
i.	Polyester Staple Fibre Fill (PSFF)	1,00,000 MTPA
j.	Poly Ethylene Terephthalate (PET)	5,20,000 MTPA
k.	Cracker (Ethylene+ Propylene)	17,00,000 MTPA
l.	Relpipe (HDPE Pipes & ducts)	1,21,000 MTPA
m.	Para Di Ethyl Benzene (PDEB)	10,000 MTPA
n.	Butadiene	2,10,000 MTPA
o.	Aromatics (Benzene+ Toluene)	5,21,400 MTPA
p.	Butene-1	80,000 MTPA
q.	MTBE	2,00,000 MTPA
r.	SBR	2,00,000 MTPA
s.	PBR	78,000 MTPA
t.	CCPP/CPP	620 MW
u.	Shipping and Tank Farm	3 Jetties, 1 SBM and pipelines

* MTPA: Metric Tonnes Per Annum

04. Year of Establishment

Sr. No.	Plant	Year of Commissioning
a.	Captive Power Plant	1991
b.	Mono Ethylene Glycol (MEG)	1991
c.	Poly Vinyl Chloride (PVC)	1991
d.	Poly Ethylene (PE)	1992
e.	Partially Oriented Yarn (POY)	1995
f.	Polyester Staple Fibre (PSFF)	1996
g.	Poly Propylene (PP)	1996
h.	Pure Terephthalic Acid (PTA)	1997
i.	Polyester Staple Fibre Fill (PSFF)	1997
j.	Poly Ethylene Terepthalate (PET)	1997
k.	Cracker	1997
l.	Relpipe plant	2000
m.	Butadiene	2005
n.	Butene1/MTBE	2012
o.	PBR	2014
p.	Relpipe-2	2014
q.	SBR	2015
r.	CCPP	2016

05. Date of last Environmental Statement submitted: 22.09.2023.

PART – B

WATER AND RAW MATERIAL CONSUMPTION:

I. Water Consumption, m^3/day : 122728

A. Process : **28752**
B. Domestic : **513**
C. Cooling & Boiler Feed : **93463**

Sr. No.	Name of Product	Water Consumption per unit of product	
		During the current Financial year (2022-23)	During the current Financial year (2023-24)
1.	MEG	6.00 m^3/MT	6.21 m^3/MT
2.	PVC	6.04 m^3/MT	6.58 m^3/MT
3.	PE	3.65 m^3/MT	3.16 m^3/MT
4.	POY	2.02 m^3/MT	2.20 m^3/MT

5.	PSF	3.57 m^3/MT	3.35 m^3/MT
6.	PET	1.16 m^3/MT	1.16 m^3/MT
7.	PSFF	2.20 m^3/MT	3.10 m^3/MT
8.	PTA	5.27 m^3/MT	5.08 m^3/MT
9.	PP	1.98 m^3/MT	1.97 m^3/MT
10.	Ethylene & Propylene (Cracker Plant)	4.93 m^3/MT	4.49 m^3/MT
11.	Benzene & Toluene (Aromatics)	3.72 m^3/MT	3.92 m^3/MT
12.	Butadiene	3.18 m^3/MT	4.10 m^3/MT
13.	CCPP + CPP	2.39 m^3/MWH	2.37 m^3/MWH
14.	Butene1/MTBE	2.63 m^3/MT	2.28 m^3/MT
15.	HDPE Pipes	0.37 m^3/MT	0.79 m^3/MT
16.	PBR	9.96 m^3/MT	8.91 m^3/MT
17.	SBR	8.32 m^3/MT	7.96 m^3/MT

II. Raw Material Consumption:

Sr. No.	Product	Raw Material Used	Raw Material Consumption per unit of Product for FY 22-23	Raw Material Consumption per unit of Product for FY 23-24
1	Power & Steam	a. Natural Gas	0.719 KSM3/MW	0.451 KSM3/MW
		b. Total Liquid Fuel (Naphtha + HSD + C9)	0.00001MT/MW	0.00004 MT/MW
		Coal	0.549 MT/MW 0.133 MT/MT of Steam (CCPP)	0.512 MT/MW 0.123 MT/MT of Steam (CCPP)
		Biomass	0.065 MT/MW 0.016 MT/MT of Steam (CCPP)	0.054 MT/MW 0.013 MT/MT of Steam (CCPP)
2	MEG	a. Ethylene	0.766 MT/MT	0.783 MT/MT
		b. Oxygen	0.707 MT/MT	0.733 MT/MT
3	PVC	a. Ethylene	0.235 MT/MT	0.235 MT/MT
		b. Chlorine	0.004 MT/MT	0.003 MT/MT
		c. EDC	0.841 MT/MT	0.840 MT/MT
4	PE	a. Ethylene	0.968 MT/MT	0.971 MT/MT
		b. Butene*	0.043 MT/MT	0.050 MT/MT
		c. Octene* (* Co-monomer)	0.006 MT/MT	0.005 MT/MT

5	POY	a. PTA	0.842 MT/MT	0.840 MT/MT
		b. MEG	0.325 MT/MT	0.324 MT/MT
6	PSF	a. PTA	0.861 MT/MT	0.862 MT/MT
		b. MEG	0.335 MT/MT	0.336 MT/MT
7	PET	a. PTA	0.842 MT/MT	0.838 MT/MT
		b. MEG	0.333 MT/MT	0.332 MT/MT
8	PFF	a. MEG	0.262 MT/MT	0.255 MT/MT
		b. PET Flakes/ Fiber & Hard Waste	0.682 MT/MT	0.715 MT/MT
9	PTA	a. Paraxylene	0.658 MT/MT	0.658 MT/MT
		b. Acetic Acid	0.044 MT/MT	0.042 MT/MT
10	PP	a. Propylene	0.966 MT/MT	0.961 MT/MT
		b. Ethylene	0.055 MT/MT	0.057 MT/MT
11	Cracker (Ethylene+ Propylene)	a. Naphtha	1.524 MT/MT	1.594 MT/MT
		b. Ethane	0.240 MT/MT	0.205 MT/MT
12	Aromatics (Benzene+ Toluene)	C6-C8	1.445 MT/MT	1.465 MT/MT
13	Butadiene	Mix C4	2.015 MT/MT	2.019 MT/MT
14	HDPE Pipes & Ducts	PE Resin	0.900 MT/MT	0.904 MT/MT
15	Butene-1	mixture of C4	2.491 MT/MT	2.441 MT/MT
16	MTBE	a. mixture of C4	1.625 MT/MT	1.608 MT/MT
		b. Methanol	0.365 MT/MT	0.364 MT/MT
17	Poly Butadiene Rubber	Butadiene	1.064 MT/MT	1.059 MT/MT
18	Styrene Butadiene Rubber	Butadiene	0.634 MT/MT	0.638 MT/MT
19	PP Catalyst	a. TiCl4	7.053 MT/MT	7.897 MT/MT
		b. Ethyl Benzoate	0.025 MT/MT	0.0 MT/MT
		c. Di-Isobutyl Phthalate	0.161 MT/MT	0.217 MT/MT

PART - C

POLLUTION DISCHARGED TO ENVIRONMENT:
(Parameters as specified in the consent issued).

I. **WATER:**

S. No.	Pollutants	Quantity of Pollutants Discharged (Kg./day)	Av. Concentration of pollutants in discharge	GPCB norms	Unit	% variation from standard
1	Temperature	-	30	40	°C	-24
2	pH	-	7.54	6.5 to 8.5	---	Nil
3	Colour	-	23	100	Pt-Co Scale	-77
4	Suspended Solids	692.27	15	100	mg/l	-85
5	Ammonical Nitrogen	203.00	4.45	50	mg/l	-91
6	BOD (3 days at 27 °C)	911.36	20	50	mg/l	-60
7	COD	3637.07	80	250	mg/l	-68
8	Oil and Grease	91.29	2	10	mg/l	-80
9	Phenolic Compounds	0.02	0.0005	1	mg/l	-100
10	Total Chromium	2.28	0.05	2	mg/l	-98
11	Zinc	7.82	0.17	5	mg/l	-97
12	Copper	1.45	0.03	2	mg/l	-99
13	Nickel	3.24	0.071	3	mg/l	-98
14	Lead	0.91	0.02	0.1	mg/l	-80
15	Sulphides	3.20	0.07	2	mg/l	-97
16	Hexavalent Chromium	2.28	0.05	0.1	mg/l	-50
17	Cyanides	0.46	0.01	0.2	mg/l	-95
18	Flourides	37.41	0.82	1.5	mg/l	-45
19	Mercury	0.04	0.001	0.01	mg/l	-90
20	Bio-assay Test	-	100%	90% survival of fish after 96 hrs. in 100 % effluent	% surviv-al	-11

II. **AIR EMISSION (STACK MONITORING):**

Sr. No.	Pollutants	Quantity of Pollutants Discharged (Kg./day)	Av. Concentration of pollutants in discharge	Percentage variation From standard
a.	PM	634	10.26	-80
b.	SO_2	8728	27.65	-88
c.	NO_x	10645	81.98	-65

PART - D

HAZARDOUS WASTE

(As Specified under Hazardous Waste (Management, Handling & Transboundary Movement) Rules 2008 under E.P. Act-1986):

	Hazardous Waste	Total Quantity (Kg.)	
		During previous Financial year (2022-23)	During current Financial year (2023-24)
A.	**From Process Plant**		
1)	Coke (VCM/ Cracker)	46520	78700
2)	Organic Residues	744863	666050
3)	Spent Molecular Sieves	Nil	Nil
4)	Spent Catalyst	498539	344332
5)	Slop oil from Waste Water plant/Waste Oil	460340	219480
6)	Used/Spent oil	169080	106700
7)	Acid alkaline residue	Please refer below note-1	Please refer below note-1
8)	Spent Solvent	Nil	3810
9)	Distillation residues (PE column residue)	134800	117740
10)	Chemical containing residue form decontamination and disposal	Please refer below note-2	Please refer below note-2
11)	Discarded containers / barrels	84560 Nos. (Please refer below note-3)	81259 Nos. (Please refer below note-3)
	Discarded containers / barrels (Used empty paint drums)	50190	12690
12)	Spent carbon	52930	10630

	Hazardous Waste	Total Quantity (Kg.)	
		During previous Financial year (2022-23)	During current Financial year (2023-24)
13)	Filter Medium	4980	Nil
14)	Battery Acid / electrolyte	4390 Liters	7130 Liters
15)	TiO2 Slurry	17950	Nil
16)	Spent Nickel Cadmium Batteries	22420	26430
17)	Mercury bearing waste	Nil	Nil
18)	Spent lead acid batteries & other lead containing waste	119250	85660
19)	Degraded Dowtherm	43630	19280
20)	Zinc Oxide	24000	11200
21)	Process Waste (EDC Bottom Dry Waste) from RIL Hazira to RIL Dahej for Incineration.	Nil	Nil
22)	E-waste	48840	32960
23)	Furnace Reactor Residues and debris (from PBR & SBR Plants)	Nil	Nil
24)	Residues of additives used in plastic manufacturing like dyestuff, stabilizers, flame retardants	Nil	2080
25)	Residue from Vinyl Chloride Monomer (EDC Bottom) Dry (EBD) waste from RIL VMD to RIL HMD for Incineration	961270	1013470
26)	Insulated copper wire scrap/ copper with PVC sheathing including ISRI code material namely druid	43260	78630
B	**From Pollution Control facility:**		
1)	Chemical Sludge from Waste Water Treatment	329530	324910
2)	Incineration Ash – HW incinerator/ PTA Plant	Nil	Nil

Note:

1. Acid alkali residues generated during chemical cleaning of pipes were collected & treated along with other effluent. Therefore, it is difficult to quantify. However, the quantity is insignificant as compared to the quantity of remaining process effluent.
2. Wastewater generated during cleaning of drums /barrels/carboys etc. becomes an integral part of the process effluent.

3. The type of containers (drums/plastic bags/ carboys) varies with the type of materials and the supplier.

PART - E

SOLID WASTE:

	Solid Waste	Total Quantity (MT)	
		During previous Financial year (2022-23)	**During current Financial year (2023-24)**
a.	**From Process**		
	Spent Alumina	2449.03	2856.921
	Oligomer / Monomer	206.10	481.83
	Spent Molecular Sieve	66.37	85.16
	Spent Silica gel	307.14	363.57
	Insulation waste	878.76	561.61
	Office Garbage	117.45	148.91
	Spent Clay	Nil	Nil
	Spent Ion Resins	148.75	87.920
	Cartridge from DMRO Unit, FRP, etc.	229.82	141030
	Charred Polymer	9.19	9.320
	Rhypox Froth	22.34	13.670
	Spent Molecular Sieves with Ceramic Balls	27.66	84.49
	Plastics Waste	1165.70	1055.77
	Horticulture Waste	-	~ 600
b.	**From Pollution Control Facility**		
	Biological sludge	1388.00	1224
	Fly Ash from Coal Based Captive Power Plant*	243075.54	271148.39
c.	**1. Quantity of recycle or reutilize within the unit**	**1388.00**	**1824.00**
	2. Sold	**247013.82**	**275691.80**
	3. Disposed through Co-processing at Cement Plant	**1662.37**	**1262.28**

*Fly Ash Utilization is as per Fly Ash Notifications

PART - F

Characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicates disposal practice adopted for both these categories of wastes.

A. Characteristics of Hazardous Waste as well as Solid Waste:

I. HAZARDOUS WASTE

a) Chemical Sludge from Waste Water Treatment:

Sr. No.	Parameter	Concentration
a.	Iron as Fe (%)	6 ~ 14
b.	Copper (%)	1.5 ~ 2.0
c.	Cobalt in ppm	44 ~ 4000
d.	Manganese in ppm	400 ~1400
e.	Moisture Content (%)	10 ~ 20
f.	Salts, Silica &other Inorganic Impurities (%)	80 ~85
g.	Volatile Residues (%)	< 5

b) Slop oil from Waste Water plant/Waste Oil:

Sr. No.	Parameter	Concentration
a.	Sediment (%)	0.084 ~ 0.093
b.	Lead (ppm)	4.90 ~ 5.20
c.	Arsenic (ppm)	Not Detected
d.	Cd + Cr+ Ni (ppm)	7.43 ~ 8.76
e.	PAH (%)	Not Detected
f.	Total Halogens (ppm)	1200 ~ 1600
g.	PCBs (ppm)	Not Detected
h.	Sulfur (%)	0.022 ~ 0.031
i.	Water Content (%)	0.032 ~ 0.046

c) Used/Spent oil:

Sr. No.	Parameter	Concentration
a.	PCBs (ppm)	Not Detected
b.	Lead (ppm)	3.6 ~ 4.2
c.	Arsenic (ppm)	Not Detected
d.	Cd + Cr + Ni (ppm)	8.4 ~ 9.78
e.	PAH (%)	Not Detected

d) **Spent Catalyst: (MEG plant)**

Sr. No.	Parameter	Concentration
a.	Silver (%)	15 to 20 %
b.	Alumina (%)	Balance

e) **Spent Catalyst: (PTA Plant)**

Sr. No.	Parameter	Concentration
a.	Palladium (%)	0.5
b.	Carbon (%)	Balance
c.	Moisture (%)	50 %

f) **Incinerator Ash: From PTA Plant**

Sr. No.	Parameter	Concentration
a.	Co(%)	10 ~ 15
b.	Mn. (%)	20 ~ 50
c.	Moisture & Inerts	Balance

g) **Incinerator Ash from HW Incinerator:**

Sr. No.	Parameter	Concentration
a.	TOC (%)	0 ~ 3
b.	Inorganic content (%)	97~99

h) **Coke: (VCM / Cracker)**

Sr. No.	Parameter	Concentration
a.	Carbon (%)	90
b.	Moisture and other inorganic Impurities (%)	Balance

i) **Degraded Dowtherm:**

Sr. No.	Parameter	Concentration
a.	Dowtherm (%)	45 ~ 50
b.	High Boilers & Heavier (%)	45 ~ 50
c.	Low Boilers (%)	1 ~ 5

j) **Spent Catalysts from Cracker Plant:**

Sr. No.	Parameter	Concentration
a.	Palladium (%)	0.2 ~ 3
b.	NiO (%)	8 ~ 11

c.	MoO3 (%)	5 ~ 14
d.	CoO(%)	1 ~ 3
e.	Promoter (%)	0.2
f.	Alumina (%)	Balance

k) Spent Catalyst from PP Plant:

Sr. No.	Parameter	Concentration
a.	Copper (%)	10 ~ 13
b.	Chromium (%)	0.5 ~ 1
c.	Palladium (%)	0.047 ~ 0.5
d.	Nickel (%)	0.4
e.	Nickel Oxide (%)	Not known
f.	Alumina (%)	Balance

l) EDC dry bottom waste:

Sr. No.	Parameter	Concentration
a.	EDC (%)	15 ~ 20
b.	TCE (%)	0 ~ 21
C.	Heavier (%)	Balance

m) Spent solvent (Solvesso):

Sr. No.	Parameter	Concentration
a.	Aromatics (%)	~ 98.6
b.	EDC (%)	~ 1.32
c.	Lighters (ppm)	< 100

n) Distillation residues (PE column residue)

Sr. No.	Parameter	Concentration
a.	Cyclohexane (%)	80~20
b.	Low Molecular Weight Polyethylene (%)	20~80

o) Spent carbon:

Sr. No.	Parameter	Concentration
a.	Carbon (%)	95 ~ 99
b.	Moisture & Other impurities (%)	Balance

p) **Chemicals containing residues generated due to cleaning of barrels (Liquid)**

Sr. No.	Parameter	Concentration
a.	Water contaminated with chemical residues	----

q) **Discarded containers / barrels (Solid) MS or Plastic containers**

Sr. No.	Parameter	Concentration
a.	Empty Decontaminated barrels/carboys of MS and plastics	----

r) **Spent lead acid batteries & other lead containing waste:**

Sr. No.	Parameter	Concentration
a.	Lead (%)	Approx. 50
b.	Other part of battery	Balance

s) **Battery Acid / electrolyte**

Sr. No.	Parameter	Concentration
a.	Battery Acid electrolyte	pH 2 to 3

t) **Furnace Reactor Residues and debris (from PBR & SBR Plants)**

Sr. No.	Parameter	Concentration
a.	Minerals & Organic matters	Mainly Butadiene Diamers & Trans Chain sPolymer Gel

u) **Residues of additives used in plastic manufacturing like dyestuff, stabilizers, flame retardants**

Sr. No.	Parameter	Concentration
a.	Organic matters	Contains different types of organics

II. SOLID WASTE

a) Spent Alumina:

Sr. No.	Parameter	Concentration
a.	Alumina as Al (%)	90 ~ 98
b.	Other Impurities (%)	Balance

b) Biological Sludge (from ETP):

Sr. No.	Parameter	Concentration
a.	Moisture (%)	2.76 ~ 3.88
b.	Total Nitrogen (%)	3.91 ~ 4.06
c.	Total Phosphate as (P2O5) (%)	5.60 ~ 5.83
d.	Total Potassium as (K2O) (%)	0.48 ~ 0.54
e.	Ash (%)	18.12 ~ 18.49
f.	Organic Matter	Balance
g.	GCV (Kcal/Kg)	3367 ~ 3504

c) Oligomer Waste

Sr. No.	Parameter	Concentration
a.	Mixture of Ethylene terephthalate oligomers (%)	> 97
b.	Additives (%)	Balance

d) Spent silica gel

Sr. No.	Parameter	Concentration
a.	Sodium Silicate (%)	99
b.	Moisture	balance

e) Spent Molecular Sieves

Sr. No.	Parameter	Concentration
a.	Zeolite (%)	99
b.	Moisture	balance

f) Waste Insulation materials

Sr. No.	Parameter	Concentration
a.	Mineral wool (%)	96 ~ 99
b.	Moisture	balance

g) **Spent Ion Resins:**

Sr. No.	Parameter	Concentration
a.	Polymeric Resins (%)	Approx. 50
b.	Moisture	Balance

h) **Cartridge filters from DMRO Unit:**

Sr. No.	Parameter	Concentration
a.	Polypropylene filter material	Approx. 99
b.	Moisture	Balance

i) **Charred Polymer:**

Sr. No.	Parameter	Concentration
a.	Melted polyester in solid form from Polyester pack cleaning (%)	100

j) **Rhypox Forth:**

Sr. No.	Parameter	Concentration
a.	Residues from Polyester pack cleaning	Approx. 85
b.	Moisture	Balance

k) **Ceramic Balls:**

Sr. No.	Parameter	Concentration
a.	Solid Ceramic material	Approx. 99

l) **Fly Ash**

Sr. No.	Parameter	Concentration
a.	LOI	1~5 %

B. Disposal Practice adopted:

I. HAZARDOUS WASTE

a. Chemical Sludge from Waste Water Treatment:

A lifetime membership of secured landfill site being operated by M/s BEIL Infrastructure Ltd., Ankleshwar has been obtained for the disposal of Chemical Sludge from Waste Water

Treatment. During the year 2023-24, Chemical Sludge from Waste Water Treatment has been disposed of at landfill site.

b. Slop oil from Waste Water plant/Waste Oil & Used/Spent oil:

It is sold to approved recyclers / reprocessors.

c. Incinerator Ash (from PTA Plant):

It is sold to the various approved metal recovery units for the recovery of Co & Mn. The recovered Co & Mn is used for the manufacturing of the Cobalt Acetate & Manganese Acetate.

d. Incinerator Ash generated from Waste Incinerator:

It is collected in jumbo bags, stored in dedicated storage area, and disposed at TSDF at M/s BEIL Infrastructure Ltd., Ankleshwar.

e. Organic Residues:

The waste is collected in leak-proof drums or jumbo bags depending on the type of waste & stored at designated location in plant. The waste is sent for Co-processing in Cement Industry and incinerated in the Hazardous waste incinerator installed at ETP.

f. Spent Solvent:

Spent solvent (solvesso) is collected in leak proof drums and sold to approved recyclers / reprocessors.

g. Distillation residues (PE Column Residue):

The waste is collected in drums and sold to reprocessor having valid CCA from pollution control board.

h. Spent Catalyst:

Spent catalyst generated is collected in MS drums and stored at designated storage location. It is sold to authorized reprocessor for recovery of metals. If not salable, it is sent to GPCB approved TSDF facility (BEIL, Ankleshwar) for disposal.

i. Degraded Dowtherm:

The waste is collected in drums and sold to an authorized reprocessor having valid CCA from state pollution control board.

j. Spent Carbon:

The waste is collected in leak proof jumbo bags and sold to authorized reprocessor / sent for Co-processing in Cement Industry

k. **Coke:**

Coke waste is collected in leak-proof jumbo bags and stored at a designated location. The coke waste sent for Co-processing in Cement Industry.

l. **EDC dry bottom:**

The EDC dry bottom waste is incinerated at PVC (VCM) plant incinerator and in case of incinerator shut down it is sent to Reliance Industries Ltd; Dahej Manufacturing Unit for incineration.

m. **TiO2 slurry:**

The waste is collected in leak proof drums and sold to authorized reprocessors / recyclers.

n. **Discarded containers / barrels:**

Decontaminated containers & used empty paint drums are sold to authorized vendors.

o. **Spent lead acid batteries & other lead containing waste:**

The waste is sold to approved recyclers.

p. **Spent Nickel Cadmium Batteries:**

The waste as and when generated in future will be sold to authorized reprocessors / recyclers.

q. **Mercury bearing waste:**

The waste as and when generated sold to approved E-waste recyclers and also sent to GPCB approved TSDF facility (BEIL, Ankleshwar) for disposal.

r. **Zinc Oxide:**

The waste as and when generated is sold to authorized reprocessors / recyclers.

s. **E waste**

The waste is sold to approved E-waste recyclers.

t. **Furnace Reactor Residues and debris (rubber gel & butadiene popcorn wastes) from PBR & SBR Plants**

The waste is collected in leak-proof jumbo bags and stored at a designated location. It is sent for Co-processing in Cement Industry.

u. **Residues of additive used in plastic manufacturing like dyestuff, stabilizers, flame retardants**

The wastes as and when generated is treated in Central ETP along with other effluents or sent to approved recyclers / co-processing / incineration.

a. Insulated copper wire scrap/copper with PVC sheathing including ISRI code material namely druid

The waste is sold to authorized reprocessors/recyclers.

I. SOLID WASTE

- Spent Silica gel, Spent Clay, Spent resins, Spent molecular sieves, Waste insulation wool, Charred Polymer, Rhypox Froth and Cartridge filters from DMRO are utilized by Co-processing in Cement Industry.
- Spent Alumina is being sold to the refractory manufacturers.
- Oligomer waste is sold to various processors for Resin preparation.
- Biological sludge is re-used in CCPP as renewable source of energy.
- Horticulture waste is utilized in CCPP as biomass.

PART - G

Impact of pollution control facility on conservation of natural resources and on the cost of production.

Gaseous & Liquid wastes recycling /reuse in 2023~24:

As described above, the waste streams having value are recycled / reused. A few examples of gaseous and liquid waste recycling/reuse are:

- By implementing process vent gas recovery scheme, about 6377 MT of process vent gases (having a calorific value of 7500 KCAL/SCM) of one plant was reutilized as fuel in different plant – a sustainable practice.
- By adopting advanced anaerobic biological treatment produced Biogas –a renewable energy source and used it as fuel in DTA vaporizers in polyester complex (11976 MT). This helped to conserve natural gas.
- Recovery of 41558.59 MT HCL in PVC plant and recycling in ETP, DM Plant and Cracker Plant.
- The treated effluent generated from the LTDS section is recycled as cooling tower make up water and for DM water generation. Total 3770848 m^3 of treated effluent recycled as cooling tower make up and DM water production.

PART - H

Additional measures / Investment proposal for environmental protection including abatement of pollution.

1. Co-processing of Hazardous and Non-Hazardous wastes – We have made agreement with M/s. Ambuja Cement Limited, Kodinar for Co-processing of wastes and total 1984 MT waste (HW+NHW) co-processed in the FY 2023-24. Productive utilization of wastes by Recycling, Reuse, Reduction, Recover & Co-processing by 95.94%.
2. Total 48 nos. of Environmental Management Programs were implemented during 2023~2024 in order to ensure continual improvement in Environmental performance (Environmental Management System – ISO – 14001:2015).
3. The Environment Management System is developed in accordance with international standard ISO-14001: 2015. EMS Surveillance audit was carried out by M/s DNV.
4. RIL- Hazira has also implemented Responsible Care – 14001 Management System, which was audited M/s DNV.
5. Reuse of 4100.17 MT low molecule polymer, other additives & hydrocarbon in PE plant.
6. Recycling of 31668.46 MT unconverted Ethylene of PE plant in Cracker plant.
7. Recovery and recycling of EDC vapour ~ 4000 MT from storage tanks as liquid EDC
8. Recovery of EDC from effluent stream and recycling it to process in VCM plant.
9. Recycle of 18185 MT hard and soft fiber in PFF Plant.
10. Regenerative Thermal Oxidizer (RTO) has been installed in PTA 1 & 2 plant for further reduction of gaseous emissions.
11. Additional VCM Incinerator has been installed in PVC plant as a backup to existing incinerator to maintain reliability.
12. Utilizing horticultural waste of the complex as a source of biomass. Waste material such as grass, coconut leaves, trimmed branches, etc. is processed in Shredder Machine and then utilized along with coal.

PART - I

HIGHLIGHTS ON ENVIRONMENT

Initiatives (2023-2024):

- RIL-HMD celebrated **World Environment Day – 2023 on 05th June, 2023** by doing plantation in and around the complex.
- Plantation with Miyawaki technique developed at Damka Village School Ground.
- A total of 32,653 No. of trees were planted in FY 23-24, exceeding the planned number i.e. 25,000 trees.




On World Environment Day different competitions were organized within the complex:

- Environment Kaizen Suggestion Competitions
- Special Commitment to the Environment
- Most Environmentally Conscious Team of the Year
- Environment Awareness Quiz Competitions
- Env Talk Competition for Contractors

Other Highlights:

1) HMD – PY is the winner of "IGMC Apex Award" for India Green Manufacturing Challenge (IGMC) -2022/23 by M/s International Research Institute for Manufacturing (IRIM).
2) India Green Manufacturing Challenge awards (IGMC-2022-23) by M/s IRIM from 17th – 19th May'23. IGMC is a well-renowned & prestigious platform for various organizations to demonstrate their commitment to sustainable manufacturing.
3) HMD, Reliance Industries Ltd is the winner of the IGMC Award which is the Apex Awards in the India Green Manufacturing Challenge.

Date: 22.07.2024

Signature of a person carrying out an Industry, operation or process

Dated 24.7.24

Name : **Shri Shantanu Date**
Designation : Site President
Address : Reliance Industries Ltd.,
Village Mora, P.O. Bhatha,
Dist. Surat - 394 510

Full Inspection Report

Annexure-VII

Full Inspection

Inspection Reference	INSP-722641
Functional Location ID	HZU-ET2-TP2-ETP-30-32-ND-23615-A1A1
Asset ID	000000001001314573
Functional Location Desc	FINAL EFFLUENT DISCHARGE LINE
Work Order Number	100007314487

Inspection Start Date	Jul-07-2023
Inspection Finish Date	Jul-07-2023
Inspection Headline	EIS-WALK THROUGH SURVEY HETP-32-ND23615
Reason For Inspection	PM COMPLIANCE

Asset Corrosion Analysis

Analysis ID	~ 000000001001314573 ~ FI - UT Corrosion Analysis
Calculated Date	Nov-29-2023
Controlling Corrosion Rate (mm/yy)	0.089
Scheduled Next Inspection	Mar-20-2026
Projected T-Min Date	Dec-02-2028
Estimated Remaining Life From Today (Months)	64.909
Maximum Allowable Working Pressure (Bar)	
Maximum Historical Corrosion Rate (mm/yy)	0.089

Full Inspection Report

Findings

Major Part: PIPE	**Inspection Method:** TML - Wall Thickness Measuring General
Minor Part: Pipes/Fittings	
Finding Summary: Satisfactory	
Action Taken Code: NONE	
Action Taken Description:	
Inspector's Analysis:	

Major Part: PIPE	**Inspection Method:** VI - Visual Inspection
Minor Part: Flanges/Fasteners	
Finding Summary: Satisfactory	
Action Taken Code: NONE	
Action Taken Description:	
Inspector's Analysis:	

Major Part: PIPE	**Inspection Method:** VI - Visual Inspection
Minor Part: Supports	
Finding Summary: Satisfactory	
Action Taken Code: NONE	
Action Taken Description:	
Inspector's Analysis:	

Reference Documents

Reference Document ID	Description	Document Path
Thickness report	Thickness report	30",32"-ND-23615-A1A.pdf

Inspection Reference	INSP-722641
Functional Location ID	HZU-ET2-TP2-ETP-30-32-ND-23615-A1A1
Asset ID	000000001001314573
Functional Location Desc	FINAL EFFLUENT DISCHARGE LINE
Work Order Number	100007837921

Inspection Start Date	Jul-07-2023

Full Inspection Report

Inspection Finish Date Jul-07-2023

Inspection Headline EIS-WALK THROUGH SURVEY HETP-32-ND23615

Reason For Inspection PM COMPLIANCE

Asset Corrosion Analysis

Analysis ID	~ 000000001001314573 ~ FI - UT Corrosion Analysis
Calculated Date	Nov-29-2023
Controlling Corrosion Rate (mm/yy)	0.089
Scheduled Next Inspection	Mar-20-2026
Projected T-Min Date	Dec-02-2028
Estimated Remaining Life From Today (Months)	64.909
Maximum Allowable Working Pressure (Bar)	
Maximum Historical Corrosion Rate (mm/yy)	0.089

Findings

Major Part: PIPE	**Inspection Method:** TML - Wall Thickness Measuring General
Minor Part: Pipes/Fittings	
Finding Summary: Satisfactory	
Action Taken Code: NONE	
Action Taken Description:	
Inspector's Analysis:	

Major Part: PIPE	**Inspection Method:** VI - Visual Inspection
Minor Part: Flanges/Fasteners	
Finding Summary: Satisfactory	
Action Taken Code: NONE	
Action Taken Description:	
Inspector's Analysis:	

Major Part: PIPE	**Inspection Method:** VI - Visual Inspection
Minor Part: Supports	
Finding Summary: Satisfactory	
Action Taken Code: NONE	
Action Taken Description:	
Inspector's Analysis:	

Full Inspection Report

Reference Documents

Reference Document ID	Description	Document Path
Thickness report	Thickness report	30",32"-ND-23615-A1A.pdf

Inspection Summary

Walk-through inspection was carried out for final effluent line.
Visual condition was observed satisfactory.
Thickness measurement was carried out on line. Measurements were observed satisfactory.
Thickness Report attached for your reference.

Reviewer Comments

Conclusion

Inspection was completed and observed satisfactory.

Signatures

Inspector Name	Shah, Jainam	**Approver Name**	Desai, Milinkumar ~ Milinkumar.Desai@ril.com

Industrial X-Ray & Allied Radiographers (I) Pvt.Ltd.

102, Faizan Apartment, 1st Floor, S. V. Road, Jogeshwari (West), Mumbai - 400 102.

ULTRASONIC THICKNESS REPORT

TEST CARRIED OUT NO BEHALF OF	MS/ RELIANCE INDUSTRIES LTD. HAZIRA	REPORT NO.	
WORK ORDER NO:	CCM/260045227	REPORT DATE	7/7/23
LINE / TAG NO:	30"/32"-ND-23615 AIA	PLANT	ETP
DESCRIPTION:	Under Ground TO Under ground	TEST DATE	7/7/23
MATTERIAL SPECIFICATION		CS / SS	

TEST DATE

APPROVED PROCEDURE		IXAR/NDE/RIL/TMP-01	
TEST EQUIPMENT	OLYMPUS	MACHINE NO.	17097-1305

PROBE USED	NAME	TYPE	SIZE	FREQUENCY
NORMAL	DOUBLE CRYSTAL	T/R	10MM	5 MHZ

COUPLANT	GREASE
METHOD	CONTACT

BASIC CALIBRATION BLOCK	STEP-GUAGE	RANGE	2.0 -TO- 100MM

CALIBRATION	DATE 7/7/23 BY/NAME Ravi Parmar QUALIFICATION ASNT LEVEL -II

TEST RESULT

LOCATION	PIPE	Bend	PIPE	Bend			
NOMINAL THICKNESS	7.92	7.92	9.52	9.52			
MEASURED MIN. THICKNESS	6.8	7.7	8.0	9.0			
MEASURED MAX. THICKNESS	9.5	7.8	9.6	9.4			

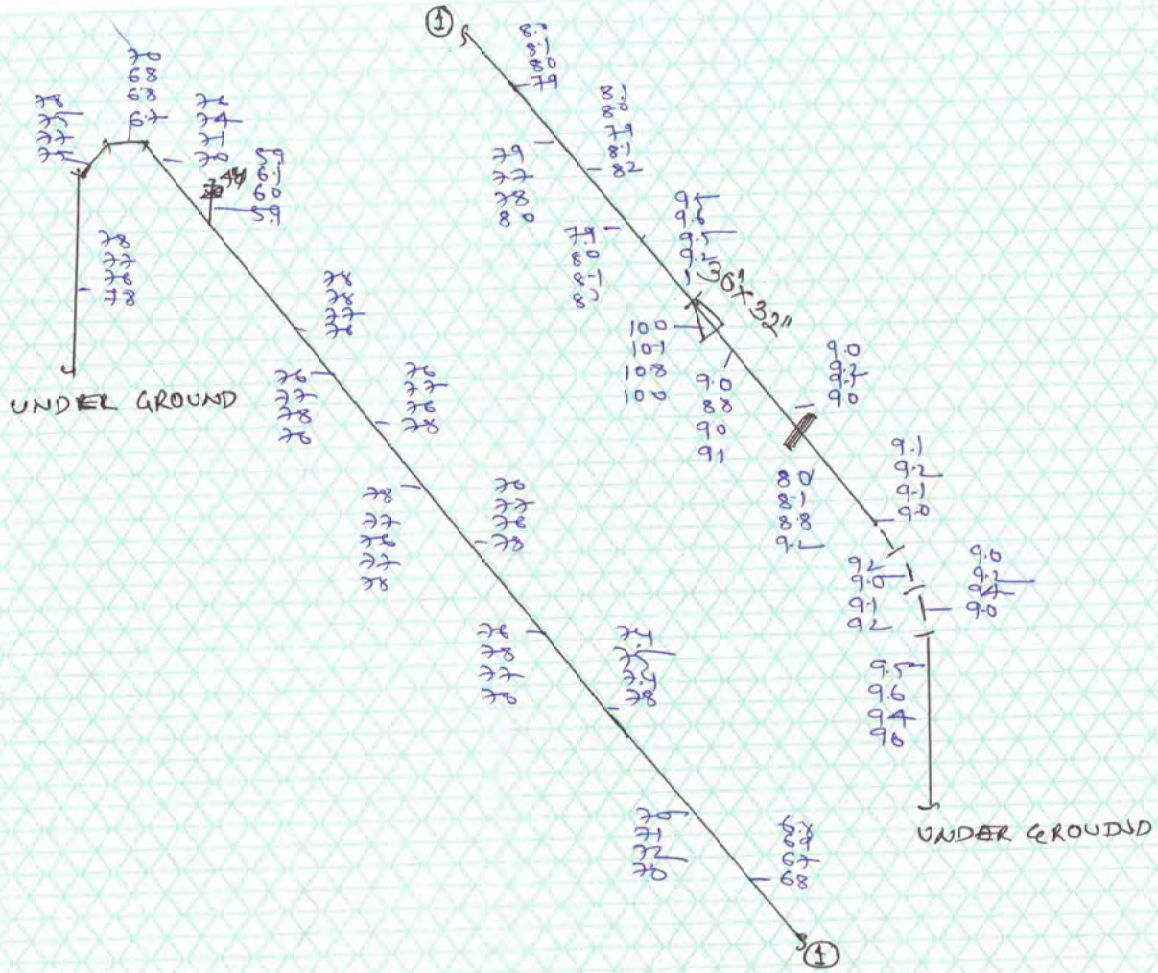
OBSERVATION & REMARKS

FOR INDUSTRIAL X-RAY & ALLIED RADIOGRAPHY (I) PVT.LTD.

Industrial X-Ray & Allied Radiographers (I) Pvt. Ltd.

LINE NO. 30"/32" ND TEST DATE 21/07/2022 PAGE NO. 01 OF 01

23615 AHA



LOCATION	LINE SIZE	NOMINAL THK (mm)	MINIMUM THK (mm)	MAXIMUM THK (mm)	M.O.C.	SERVICE	OPERATOR NAME
PIPE	30"	7.92	6.8	9.5	CS		Anarit Rana
BEND	30"	7.92	6.7	7.8	"		"
PIPE	32"	9.52	8.0	9.6	"		"
BEND	32"	9.52	9.0	9.4	"		"

Annexure VIII

Details of Hazardous waste Storage, Treatment, Disposal and Characteristics

a. Chemical Sludge from Wastewater Treatment:

A lifetime membership of secured landfill site being operated by M/s BEIL Infrastructure Ltd., Ankleshwar has been obtained for the disposal of Chemical Sludge from Waste Water Treatment. During the reporting period , Chemical Sludge from Waste Water Treatment has been disposed of at landfill site.

b. Slop oil from Waste Water plant/Waste Oil & Used/Spent oil:

It is sold to approved recyclers / reprocessors.

c. Incinerator Ash (from PTA Plant):

It is sold to the various approved metal recovery units for the recovery of Co & Mn. The recovered Co & Mn is used for the manufacturing of the Cobalt Acetate & Manganese Acetate.

d. Incinerator Ash generated from Waste Incinerator:

It is collected in jumbo bags, stored in dedicated storage area, and disposed at TSDF at M/s BEIL Infrastructure Ltd., Ankleshwar/Dahej .

e. Organic Residues:

The waste is collected in leak-proof drums or jumbo bags depending on the type of waste & stored at designated location in plant. The waste is sent for Co-processing in Cement Industry and incinerated in the Hazardous waste incinerator installed at ETP.

f. Spent Solvent:

Spent solvent (solvesso) is collected in leak proof drums and sold to approved recyclers / reprocessors.

g. Distillation residues (PE Column Residue):

The waste is collected in drums and sold to reprocessor having valid CCA from pollution control board.

h. Spent Catalyst:

Spent catalyst generated is collected in MS drums and stored at designated storage location. It is sold to authorized reprocessor for recovery of metals. If not salable, it is sent to GPCB approved TSDF facility (BEIL, Ankleshwar/Dahej) for disposal.

i. Degraded Dowtherm/Santotherm :

The waste is collected in drums and sold to an authorized reprocessor having valid CCA from state pollution control board.

j. Spent Carbon:

The waste is collected in leak proof jumbo bags and sold to authorized reprocessor / sent for Co-processing in Cement Industry

k. Coke:

Coke waste is collected in leak-proof jumbo bags and stored at a designated location. The coke waste sent for Co-processing in Cement Industry.

l. EDC dry bottom:

The EDC dry bottom waste is incinerated at PVC (VCM) plant incinerator and in case of incinerator shut down it is sent to Reliance Industries Ltd; Dahej Manufacturing Unit for incineration.

m. TiO2 slurry:

The waste is collected in leak proof drums and sold to authorized reprocessors / recyclers.

n. Discarded containers / barrels:

Decontaminated containers & used empty paint drums are sold to authorized vendors.

o. Spent lead acid batteries & other lead containing waste:

The waste is sold to approved recyclers.

p. Spent Nickel Cadmium Batteries:

The waste as and when generated in future will be sold to authorized reprocessors / recyclers.

q. Mercury bearing waste:

The waste as and when generated sold to approved E-waste recyclers and also sent to GPCB approved TSDF facility (BEIL, Ankleshwar) for disposal.

r. Zinc Oxide:

The waste as and when generated is sold to authorized reprocessors / recyclers.

s. E waste

The waste is sold to approved E-waste recyclers.

t. Furnace Reactor Residues and debris (rubber gel & butadiene popcorn wastes) from PBR & SBR Plants

The waste is collected in leak-proof jumbo bags and stored at a designated location. It is sent for Co-processing in Cement Industry.

u. Residues of additive used in plastic manufacturing like dyestuff, stabilizers, flame retardants

The wastes as and when generated is treated in Central ETP along with other effluents or sent to approved recyclers / co-processing / incineration.

v. Insulated copper wire scrap/copper with PVC sheathing including ISRI code material namely druid

The waste is sold to authorized reprocessor/recyclers.

Characteristics of Hazardous Waste:

a) Chemical Sludge from Wastewater Treatment:

Sr. No.	Parameter	Concentration
a.	Iron as Fe (%)	6 ~ 14
b.	Copper (%)	1.5 ~ 2.0
c.	Cobalt in ppm	44 ~ 4000
d.	Manganese in ppm	400 ~1400
e.	Moisture Content (%)	10 ~ 20
f.	Salts, Silica &other Inorganic Impurities (%)	80 ~85
g.	Volatile Residues (%)	< 5

b) Slop oil from Waste Water plant/Waste Oil:

Sr. No.	Parameter	Concentration
a.	Sediment (%)	0.084 ~ 0.093
b.	Lead (ppm)	4.90 ~ 5.20
c.	Arsenic (ppm)	Not Detected
d.	Cd + Cr+ Ni (ppm)	7.43 ~ 8.76
e.	PAH (%)	Not Detected
f.	Total Halogens (ppm)	1200 ~ 1600
g.	PCBs (ppm)	Not Detected
h.	Sulfur (%)	0.022 ~ 0.031
i.	Water Content (%)	0.032 ~ 0.046

c) Used/Spent oil:

Sr. No.	Parameter	Concentration
a.	PCBs (ppm)	Not Detected
b.	Lead (ppm)	3.6 ~ 4.2
c.	Arsenic (ppm)	Not Detected
d.	Cd + Cr + Ni (ppm)	8.4 ~ 9.78
e.	PAH (%)	Not Detected

d) Spent Catalyst: (MEG plant)

Sr. No.	Parameter	Concentration

a.	Silver (%)	15 to 20 %
b.	Alumina (%)	Balance

e) Spent Catalyst: (PTA Plant)

Sr. No.	Parameter	Concentration
a.	Palladium (%)	0.5
b.	Carbon (%)	Balance
c.	Moisture (%)	50 %

f) Incinerator Ash: From PTA Plant

Sr. No.	Parameter	Concentration
a.	Co(%)	10 ~ 15
b.	Mn. (%)	20 ~ 50
c.	Moisture & Inerts	Balance

g) Incinerator Ash from HW Incinerator:

Sr. No.	Parameter	Concentration
a.	TOC (%)	0 ~ 3
b.	Inorganic content (%)	97~99

h) Coke: (VCM / Cracker)

Sr. No.	Parameter	Concentration
a.	Carbon (%)	90
b.	Moisture and other inorganic Impurities (%)	Balance

i) Degraded Dowtherm/Santotherm :

Sr. No.	Parameter	Concentration
a.	Dowtherm /Santotherm (%)	45 ~ 50
b.	High Boilers & Heavier (%)	45 ~ 50
c.	Low Boilers (%)	1 ~ 5

j) Spent Catalysts from Cracker Plant:

Sr. No.	Parameter	Concentration
a.	Palladium (%)	0.2 ~ 3
b.	NiO (%)	8 ~ 11
c.	MoO3 (%)	5 ~ 14
d.	CoO(%)	1 ~ 3
e.	Promoter (%)	0.2
f.	Alumina (%)	Balance

k) Spent Catalyst from PP Plant:

Sr. No.	Parameter	Concentration
a.	Copper (%)	10 ~ 13
b.	Chromium (%)	0.5 ~ 1
c.	Palladium (%)	0.047 ~ 0.5
d.	Nickel (%)	0.4
e.	Nickel Oxide (%)	Not known
f.	Alumina (%)	Balance

l) EDC dry bottom waste:

Sr. No.	Parameter	Concentration
a.	EDC (%)	15 ~ 20
b.	TCE (%)	0 ~ 21
C.	Heavier (%)	Balance

m) Spent solvent (Solvesso):

Sr. No.	Parameter	Concentration
a.	Aromatics (%)	~ 98.6
b.	EDC (%)	~ 1.32
c.	Lighters (ppm)	< 100

n) Distillation residues (PE column residue)

Sr. No.	Parameter	Concentration
a.	Cyclohexane (%)	80~20
b.	Low Molecular Weight Polyethylene (%)	20~80

o) Spent carbon:

Sr. No.	Parameter	Concentration
a.	Carbon (%)	95 ~ 99
b.	Moisture & Other impurities (%)	Balance

p) Chemicals containing residues generated due to cleaning of barrels (Liquid)

Sr. No.	Parameter	Concentration
a.	Water contaminated with chemical residues	----

q) Discarded containers / barrels (Solid) MS or Plastic containers

Sr. No.	Parameter	Concentration

a.	Empty Decontaminated barrels/carboys of MS and plastics	----

r) Spent lead acid batteries & other lead containing waste:

Sr. No.	Parameter	Concentration
a.	Lead (%)	Approx. 50
b.	Other part of battery	Balance

s) Battery Acid / electrolyte

Sr. No.	Parameter	Concentration
a.	Battery Acid electrolyte	pH 2 to 3

t) Furnace Reactor Residues and debris (from PBR & SBR Plants)

Sr. No.	Parameter	Concentration
a.	Minerals & Organic matters	Mainly Butadiene Diamers & Trans Chain sPolymer Gel

u) Residues of additives used in plastic manufacturing like dyestuff, stabilizers, flame retardants

Sr. No.	Parameter	Concentration
a.	Organic matters	Contains different types of organics

Annexure IX

Ground Water Monitoring Reports

S.NO	TEST PARAMETER	UNIT	Sampling Locations					
			Mora	Suvali	Damka	Hazira	Kavas	Dumas
1	pH	--	8.31	7.91	8.01	7.73	7.74	7.64
2	Colour	co.pt	25	20	50	5	20	5
3	Total Suspended Solids	mg/l	12	9	15	6	8	<2
4	Total Dissolved Solids	mg/l	837	346	1304	796	671	615
5	Total Hardness	mg/l	162	154	220	412	232	322
6	Iron as Fe	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
7	Aluminium as Al	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
8	Copper as Cu	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
9	Zinc as Zn	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
10	Magnesium	mg/l	23.52	20.16	27.84	42.24	32.64	49.92
11	Calcium	mg/l	25.6	28	41.6	94.4	38.4	45.6
12	Chloride	mg/l	186	58.98	185	107	144	83.97
13	AmmonicalNitrogen	mg/l	<0.2	<0.2	0.960	<0.2	<0.2	<0.2
14	Total Alkalinity as calcium carbonate	mg/l	362	192	680	384	320	360
15	PhenolicCompoundsas C6H5OH	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
16	Mineral Oil	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
17	Total chromium as Cr+3	mg/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
18	Arsenicas As	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
19	Mercury as Hg	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
20	Lead as Pb	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
21	Cyanide asCN	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
22	Boron as B	mg/l	0.385	0.12	0.977	0.444	0.233	0.287
23	Nitrate as NO3	mg/l	<0.5	<0.5	7.37	38.07	1.06	24.38
24	Sulphate	mg/l	48.3	5.39	41.3	21.3	37.8	4.82
25	Sulphide asH2S	mg/l	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
26	Fluoride	mg/l	0.346	0.369	0.912	0.378	0.461	0.306
27	Anionic Detergentsas MBAS	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
28	ChemicalOxygenDemand (COD)	mg/l	9.75	<5	9.82	<5	<5	<5
29	Oil and Grease	mg/l	<2	<2	3.3	3.7	<2	3.9
30	Salinity	ppt	<1	<1	<1	<1	<1	<1
31	BiochemicalOxygenDemand (BOD)	mg/l	2	<1	2.3	<1	<1	<1
32	Total Nitrogen	mg/l	<0.1	<0.1	13.59	39.15	2.19	25.43
33	Nickel as Ni	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
34	Fecal Coliform	MPN/100 ml	26	4	30	1600	1600	1600
35	Escherichiacoli	MPN/100 ml	21	2	23	1600	1600	1600
36	Fecal Streptococci	MPN/100 ml	<2	<2	<2	<2	<2	<2
37	Organic (as volatile residue at 550 C)	mg/l	228	112	260	220	220	220
38	Total Petroleum Hydrocarbon (TPH)	mg/l	<1	<1	<1	<1	<1	<1

Annexure-X

Reliance
Industries Limited

CIN # L17110MH1973PLC019786

RIL/HMD/HO/GPCB/2024-25/05
26th June 2024

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

Sub: Submission of Environmental Audit Report for FY 23-24 of RIL-HMD

Ref: CCA order no - AWH-130672 (RIL-HMD, PCB ID-21170)

Dear Sir,

With reference to the directives given in Special Civil Application 163/95 in SCA – 770/96 by Hon'ble High court on 20/12/96 and MCA-326 of 1997 in SCA – 770/95 on 13/03/97, please find enclosed the Environmental Audit Report (in triplicate) for Hazira Manufacturing Division for the year FY 23-24.

The Scrutiny fees of INR 10,000 has been paid by RIL-HMD to GPCB through XGN portal on 26/06/2024 with Payment ID: 539857 (Transaction No. 406263174926).

Thanking you,

Yours faithfully,
For Reliance Industries Limited

Premal Shah
Head- Environment

Encl: A/a

Gujarat Pollution Control Board
Head Office
Sector No.-10-A,
Gandhinagar-382010

ENVIRONMENTAL AUDIT REPORT
(PERIOD: APRIL 2023 TO MARCH 2024)

M/s. Reliance Industries Limited
(Hazira Manufacturing Division)

Village: Mora, Po: Bhatha,

Surat – Hazira Road, Dist: Surat - 394510

ENVIROCHEM AUDIT CELL
CHEMICAL ENGINEERING DEPARTMENT
SARDAR VALLABHBHAI PATEL EDUCATION SOCIETY MANAGED

N. G. PATEL POLYTECHNIC

At. ISROLI - AFWA, P.O. AFWA, TAL.: BARDOLI,
DIST.: SURAT - 394 620
E-MAIL : chem_ngp@yahoo.co.in, WEB SITE: www.ngpatelpoly.ac.in
PH. (02622) 223841, 225591. FAX : (02622) 227613

Annexure-XI

Jyoti Patidar

From: Premal Shah
Sent: 29 April 2025 15:38
To: IRO Gandhinagar; moefcc-coalash@gov.in; Member Secretary CPCB
Cc: Prashant Gogate
Subject: Ash Compliance Report FY 24-25 - RIL-HMD
Attachments: Ash Compliance report 24-25.pdf

Sir

With reference to Fly Ash Notification dated 31.12.2021, please find attached the Ash Compliance Report of RIL-HMD for FY 2024-25.

This is submitted for your information and perusal please.

Regards

Premal Shah
AVP & Head Environment
Reliance Industries Limited (RIL)
Hazira Manufacturing Division (HMD)

Reliance
Industries Limited
CIN # L17110MH1973PLC019786

Ref No: RIL/HMD/HO/GPCB/2025-26/02

29th Apr,2025

Gujarat Pollution Control Board,
Paryavaran Bhavan,
Sector 10 A,
Gandhinagar - 382010

Kind Attn: Dr. S. N. Agravat (Unit Head, Surat)

Sub: Submission of Ash Compliance Report of 360 MW Coal based Power Plant of RIL-HMD for FY 2024-25 (PCB ID-21170)
Ref: Fly Ash Notification dated 31.12.2021

Dear Sir,

With reference to above referred Fly Ash Notification, please find attached herewith Ash compliance Report containing details about Fly Ash Generation and Utilization during FY 2024-25 in prescribe format.

For your information & records please.

Thanking you,

Yours faithfully,
For Reliance Industries Limited

(Premal Shah)
Head - Environment

Encl: As above

Annexure

Ash Compliance Report (for the period 1st April 2024 -31st March 2025) to be submitted on or before 31st May.

Sl. No.	Details	
1.	Name of Power Plant	Captive Cogeneration Power Plant (CCPP)
2.	Name of the company	M/s. Reliance Industries Limited, (RIL)
3.	District	Surat
4.	State	Gujarat
5.	Postal address for communication:	Mr. Premal Shah Head-Environment MAB Module-5, M/s. Reliance Industries Limited, (RIL), Village Mora, PO Bhatha, Surat-Hazira Road, Dist.-Surat PIN-394510
6.	E-mail:	Premal.Shah@ril.com
7.	Power Plant installed capacity (MW):	360+steam generation for process.
8.	Plant Load Factor (PLF):	74.1%
9.	No. of units generated (MWh):	2343061 MWH (Total during FY 24-25)
10.	Total area under power plant (ha): (including area under ash ponds)	51 Hectare
11	Quantity of coal consumption during reporting period (Metric Tons per Annum):	Coal: 1826412 MTPA Biomass: 127213 MTPA
12	Average ash content in percentage (per cent):	13.61%
13.	Quantity of current ash generation during reporting period (Metric Tons per Annum): Fly ash (Metric Tons per Annum): Bottom ash (Metric Tons per Annum):	282133 MTPA 245129 MTPA 37004 MTPA
14.	Capacity of dry fly ash storage silo(s) (Metric Tons):	Total 4 Ash Silos are available 3 Silos of 1600 MT each for Fly Ash 1 Silos of 1600 MT for Bottom Ash
15.	Details of utilisation of current ash generated during reporting period (a) Total quantity of current ash utilised (MTPA) during reporting period:	 282384 MTPA

	(b) Quantity of fly ash utilised (MTPA):	
	(i) Fly ash-based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels)	36878 MTPA Bricks making
	(ii) Cement manufacturing:	159806 MTPA
	(iii) Ready mix concrete:	49171 MTPA
	(iv) Ash and Geo-polymer-based construction material:	Nil
	(v) Manufacturing of sintered or cold bonded ash aggregate:	Nil
	(vi) Construction of roads, road and fly over embankment:	Nil
	(vii) Construction of dams:	Nil
	(viii) Filling up of low-lying area:	Nil
	(ix) Filling of mine voids:	Nil
	(x) Use in overburden dumps:	Nil
	(xi) Agriculture:	Nil
	(xii) Construction of shoreline protection structures in coastal districts;	Nil
	(xiii) Export of ash to other countries:	Nil
	(xiv) Others (please specify):	Nil
	(c) Quantity of bottom ash utilised (MTPA):	
	(i) Fly ash-based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels):	21917 MTPA Bricks making
	(ii) Cement manufacturing:	Nil
	(iii) Ready mix concrete:	Nil
	(iv) Ash and Geo-polymer-based construction material:	Nil
	(v) Manufacturing of sintered or cold bonded ash aggregate:	Nil

	(vi) Construction of roads, road and flyover embankment:	14611 MTPA Road making
	(vii) Construction of dams:	Nil
	(viii) Filling up of low-lying area:	Nil
	(ix) Filling of mine voids:	Nil
	(x) Use in overburden dumps:	Nil
	(xi) Agriculture:	Nil
	(xii) Construction of shoreline protection structures in coastal districts	Nil
	(xiii) Export of ash to other countries:	Nil
	(xiv) Others (please specify):	Nil
	Total quantity of current ash unutilised (MTPA) during reporting period:	0.0 MTPA
16.	Percentage utilisation of current ash generated during reporting period (per cent):	100 %
17.	Details of disposal of ash in ash ponds (a) Total quantity of ash disposed in ash pond(s) (Metric Tons) as on 31st March (excluding reporting period): (b) Quantity of ash disposed in ash pond(s) during reporting period (Metric Tons): (c) Total quantity of water consumption for slurry discharge into ash ponds during reporting period (m3): (d) Total number of ash ponds: (i) Active: (ii) Exhausted (yet to be reclaimed): (iii) Reclaimed: (e) total area under ash ponds (ha):	Not Applicable
18.	Individual ash pond details *Ash pond-1,2, etc (please provide below mentioned details separately, if number of ash ponds is more than one)* (a) Status: Under construction or Active or Exhausted or Reclaimed	Not Applicable

	(b) Date of start of ash disposal in ash pond (DD/MM/YYYY or MMYYYY): (c) Date of stoppage of ash disposal in ash pond after completing its capacity (DD/MM/YYYY or MM/YYYY): (Not applicable for active ash ponds) (c) area (hectares): (d) dyke height (m): (d) volume (m3): (e) quantity of ash disposed as on 31st March (Metric Tons): (f) available volume in percentage (per cent) and quantity of ash can be further disposed (Metric Tons): (g) expected life of ash pond (number of years and months): (e) co-ordinates (Lat and Long): (please specify minimum 4 co-ordinates) (f) type of lining carried in ash pond: HDPE lining or LDPE lining or clay lining or No lining g) mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD) (h) Ratio of ash: water in slurry mix (1:___): (i) Ash water recycling system (AWRS) installed and functioning: Yes or No (j) Quantity of wastewater from ash pond discharged into land or water body (m3): (k) Last date when the dyke stability study was conducted and name of the organisation who conducted the study: (l) Last date when the audit was conducted and name of the organisation who conducted the audit:	
19.	Quantity of legacy ash utilised (MTPA):	Not Applicable

	i. Fly ash-based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels): ii. Cement manufacturing: iii. Ready mix concrete: iv. Ash and Geo-polymer-based construction material: v. Manufacturing of sintered or cold bonded ash aggregate: vi. Construction of roads, road and flyover embankment: vii. Construction of dams; viii. Filling up of low-lying area: ix. Filling of mine voids: x. Use in overburden dumps: xi. Agriculture: xii. Construction of shoreline protection structures in coastal districts; xiii. Export of ash to other countries: xiv. Others (please specify):	

20. Summary:

Details	Quantity generated (MTP)	Quantity utilised (MTP) and (per cent)	Balance quantity (MTP)
Current ash during reporting period	282133 MTPA	282384 MTPA 100 % Utilization	00 MT
Legacy ash	Not Applicable	No Applicable	Not Applicable
Total	282133 MTPA	282384 MTPA	00 MT

Note-
Difference in Generation and Utilisation quantity is due to moisture addition while filling the ash in the dumper to avoid dusting.

21.	Any other information: Soft copy of the annual compliance report, and shape files of power plant and ash ponds may be e-mailed to: - moefcc-coalash@gov.in	
22.	Signature of Authorised Signatory	PREMAL SHAH Head - ENVIRONMENT RIL - HMD