



रामगुंडम फर्टिलाइजर्स एंड केमिकल्स लिमिटेड

# Ramagundam Fertilizers And Chemicals Limited रामगुंडम फर्टिलाइजर्स एंड केमिकल्स लिमिटेड

(A Joint Venture Company)

Site Office : Fertilizers City, Ramagundam - 505 210, Dist. Peddapalli, Telangana

Telephone : +91 8728 257488, E-mail : rfcl.ramagundam@rfcl.co.in

GSTIN : 36AAHCR2335P1ZY, CIN : U24100DL2015PLC276753

RFCL/TS/EMC/FY 23-24/17

Dated: 24.11.2023

To,  
Director,  
Regional Office,  
Ministry of Environment, Forest and Climate Change,  
1<sup>st</sup> and 2<sup>nd</sup> Floor, HEPC Building,  
No:34, Cathedral Garden Road,  
Nungambakkam,  
Chennai-600034.

**Sub :** Submission of Half Yearly Environmental Clearance (EC) Compliance Report for RFCL Ramagundam, Telangana for the period of April'23- September'23.

**Ref :** F No.- J-11011/371/2013-IA II (I) dated 16<sup>th</sup> October,2015.

Respected Sir,

Half-yearly Environmental Clearance Compliance report along with the Environment monitoring data for the period of April'23- September'23 is enclosed herewith.

Trust that you find the above information in order.

Yours Sincerely,

G.P. Dabhi  
(DGM TS)

Enclosure: As above.

Copy to:

- Joint Chief Environmental Engineer (TSPCB), Hyderabad, Telangana.
- Zonal Office, CPCB, Bengaluru, Karnataka.
- Environmental Engineer, Ramagundam, Telangana.
- Chief Conservator of Forests (C), Regional Office(WZ), Bhopal-462016.
- Chief Conservator of Forests (C), Regional Office(EZ), Bhubneswar-751023.

**Corporate Office:** 4<sup>th</sup> Floor, Wing-A, Kribhco Bhawan, Sector-1, Noida, Uttar Pradesh, Pin Code- 201301  
**Registered Office:** Scope Complex, Core No. III, 7, Institutional Area, Lodhi Road, New Delhi-110003



Registered & Corporate Office : 3<sup>rd</sup> & 4<sup>th</sup> Floor, Mehta Building,  
4, Bhikaji Cama Place, New Delhi - 110066.



**RAMAGUNDAM FERTILIZERS AND CHEMICALS LIMITED, RAMAGUNDAM**  
 Ammonia (2200 MTPD) / Urea (3850 MTPD) Fertilizer Complex

Subject : Six monthly compliance report of Environmental Clearance. ( Period : April 2023-September 2023)

Ref: MoEF&CC letter No: J-11011/371/2013-IA II (I) dated 16<sup>th</sup> October, 2015.

**A. SPECIFIC CONDITIONS**

S.NO	DESCRIPTION	COMPLIANCE STATUS
i)	<p>The gaseous emissions (SO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub>, HC and Urea Dust) and Particulate matter from various process units shall conform to the norms prescribed by CPCB/ SPCB from time to time.</p> <p>At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.</p> <p>Stack emissions shall be monitored continuously (24 x 7) as per CPCB guideline.</p>	<p>The Particulate matter and gaseous emissions from various process units conform to the norms prescribed by CPCB/ SPCB from time to time.</p> <p>Process stack emissions are being monitored continuously as per the CPCB guidelines. Details of Process Emissions (Stack Emission) are enclosed.</p> <p>(Doc No.: RFCL-TS-EMC-Report-05)</p>
ii)	<p>Adequate stack height shall be provided to Ammonia Plant Reformer, Heat Recovery Steam Generator (HRSG), NG/RLNG fired Gas Turbine and Prilling Tower.</p> <p>Low NO<sub>x</sub> burners shall be provided to control NO<sub>x</sub> emissions.</p>	<p>Stack heights of Ammonia Plant Primary Reformer, Heat Recovery Steam Generator (HRSG), Utility Boiler &amp; NG/RLNG fired Gas Turbine and Prilling Tower are as per the CPCB guidelines.</p> <p>Low NO<sub>x</sub> burners have been installed in Primary reformer, HRSG &amp; Utility Boiler to mitigate the NO<sub>x</sub> emission.</p>
iii)	<p>In Urea Plant, particulate emissions shall not exceed 50 mg/Nm<sup>3</sup>. Monitoring of Prilling Tower shall be carried out as per CPCB guidelines.</p>	<p>Urea dust from the Prilling tower remains well below the prescribed limit as specified by CPCB (less than 50 mg/Nm<sup>3</sup>) .</p>
iv)	<p>As proposed, Fertilizer plant shall be designed for Specific Energy Consumption of 5.0 Gcal/MT of Urea.</p>	<p>Urea Plant has been designed with Specific Energy Consumption of &lt; 5.0 GCal/MT of Urea.</p>
v)	<p>Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R No. 826(E) dated 16th September, 2009 . The levels of PM<sub>10</sub> (Urea Dust), SO<sub>2</sub>, NO<sub>x</sub>, Ammonia, Ozone and HC shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places.</p> <p>The Company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to Regional Office of MoEF, the respective Zonal office of CPCB and the Telangana State Pollution Control Board (TSPCB).</p>	<p>Continuous Ambient Air quality monitoring stations have been provided at two locations within the factory premises.</p> <p>Six Monthly Environmental Compliance report along with results of monitored data has been uploaded in the company website and same will be updated periodically. PM<sub>10</sub>, PM<sub>2.5</sub>, Ammonia, SO<sub>2</sub>, Ozone, HC &amp; NO<sub>x</sub> readings are being displayed at Factory Main Gate, Material Entry Gate and Technical Building Entrance. It is also connected to the TSPCB website.</p> <p>Environmental reports are being submitted to Regional office, Ramagundam on monthly basis.</p> <p>Details of Ambient Air quality are enclosed.</p> <p>(Doc No.: RFCL-TS-EMC-Report-04)</p>
vi)	<p>In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling &amp; conveyance of chemicals/ materials, multi cyclone separator and water sprinkling system. Fugitive emissions in the work zone environment, product, raw material storage area etc shall be regularly monitored. The emissions should conform to the limits stipulated by the TSPCB.</p>	<p>Ammonia &amp; Urea plants are Natural Gas based plants. For both feed &amp; fuel, Natural gas is used. Urea dust collection and recovery systems ( De-dusting System) are inline to control dust emission during product handling.</p> <p>Work place monitoring is carried out at regular interval, which helps to maintain emission level within the prescribed limit.</p> <p>Gas sensors are provided at potential points to monitor and control the fugitive emissions.</p>
vii)	<p>The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards.</p> <p>Acoustic enclosure shall be provided to the DG set to mitigate the noise pollution.</p>	<p>Stack height of DG set is as per CPCB standards.</p> <p>Acoustic enclosure has been provided to the DG set to mitigate the noise pollution.</p>

*Signature*

S.NO	DESCRIPTION	COMPLIANCE STATUS
viii)	Fresh water requirement from Yellampalli Barrage should not exceed 30500M <sup>3</sup> /day. Prior permission shall be obtained from Competent Authority and a copy submitted to the Ministry's Regional office at Bangalore. Efforts shall be made to bring down the water consumption upto 6 m <sup>3</sup> /MT urea production or as per CPCB guideline.	Fresh water drawn is below 30500 m <sup>3</sup> /day from Yellampalli Barrage. Continuous efforts are being done for water conservation. Process Condensate & Turbine Condensate are reused in Process.
ix)	Industrial wastewater shall be treated in the ETP. As proposed, Urea plant process condensate shall be treated in a deep hydrolyser followed by stripping. Ammonia Plant process condensate(APC) shall be stripped with steam followed by activated carbon and demineralisation. Treated condensate shall be recycled/reused in the process. Utilities waste water shall be treated in the ETP and treated effluent shall be recycled/reused. Treated effluent shall be monitored for Ammonical Nitrogen, Nitrate, Fluoride, pH etc. No process effluent shall be discharged in and around the Project Site. Sewage shall be treated in STP.	<ul style="list-style-type: none"> <li>Urea plant process condensate is treated in a deep hydrolyser followed by stripping.</li> <li>Ammonia Plant process condensate is stripped with steam followed by activated carbon. Total process condensate is converted into DM water and reused in the process.</li> <li>Utility waste water is treated in ETP and treated water collected in guard ponds (02 Nos).</li> <li>Online Monitoring system has been provided for the treated effluent parameters Ammoniacal Nitrogen, Flow &amp; pH and same has been connected to the CPCB &amp; TSPCB servers. Apart that BOD,COD &amp;TSS also connected to the TSPCB server as per the directions from Task force.</li> </ul> <p>Details of Treated Effluent water Quality are enclosed. (Doc No.: RFCL-TS-EMC-Report 02)</p> <ul style="list-style-type: none"> <li>Sewage generated inside the plant premises being treated in Plant STP.</li> <li>Sewage generated in township being treated in Township STP and treated water is being utilized for development of Green belt area.</li> </ul> <p>Details of STP outlet Quality are enclosed. (Doc No.: RFCL-TS-EMC-Report-06)</p>
x)	The treated effluent (not more than 250M <sup>3</sup> /Hr) shall be discharged in to the River Godavari after conforming to the standards prescribed for the effluent discharge and after obtaining permission from the State Pollution Control Board/CPCB. Treated effluent shall be passed through guard pond/holding pond before discharging outside the plant premises and Automatic/ online monitoring system (24 x 7 monitoring devices) for flow and relevant pollutants (i.e. pH, Ammonical Nitrogen, nitrate nitrogen etc) shall be provided with high level alarm system. The data to be made available to the respective SPCB and in the Company's website.	The treated effluent conforms to the specified standards before discharging to River Godavari. Consent For Operation received from TSPCB dated 07.06.2021 (Consent Order No: 21053004209). Automatic/ online monitoring system (24 x 7) for flow and relevant pollutants (pH, Ammonical Nitrogen, Nitrate Nitrogen etc) has been provided with high level alarm system and same is connected to TSPCB & CPCB server. Apart that BOD,COD &TSS also connected to the TSPCB server as per the directions from Task force team. Treated effluent discharge to River Godavari always remains less than 250 m <sup>3</sup> /hr.
xi)	Regular monitoring of ground water by installing piezometric wells around the guard ponds and sludge disposal sites shall be periodically monitored and reports shall be submitted to the concerned Regional office of the Ministry, CPCB and SPCB.	Ground water quality is being monitored at eight different locations around the plant site & near by villages. Analysis reports are submitted to RO, Ramagundam on monthly basis. Details of Ground water quality are enclosed. (Doc No.: RFCL-TS-EMC-Report-03)
xii)	The company shall construct the garland drain all around the project site to prevent runoff of any chemical containing waste in to the nearby waterbodies. Effluent shall be properly treated and treated effluent shall conform to CPCB standards.	Garland drains have been provided around project site. Storm water drains, effluent drains & oily water collection pits are constructed separately to avoid mixing of effluent with storm water.
xiii)	The Company shall obtain Authorisation for Collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules,2008 and amended as on date for management of Hazardous wastes. Measures shall be taken for fire fighting facilities in case of emergencies.	Hazardous Waste Authorisation received from TSPCB ( HWA No: 210523004209) dated 07.06.2021. Adequate fire-fighting equipment and Fire water network are in place. There is a separate Fire & Safety department with well trained and experienced professionals to handle any such untoward situation.

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S.NO	DESCRIPTION	COMPLIANCE STATUS
xiv)	Spent Catalysts and used oil shall be sold to authorised recyclers/re-processors only.	Being Complied.
xv)	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989 as amended time to time . All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA) 1989.	RFCL strictly complies with the rules and regulations regarding Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989 as amended time to time and transportation of Spent catalyst/ Used oil as per the Motor Vehicle Act (MVA) 1989.
xvi)	Remote Operated valve placed on NH3 line to avoid leakage/ equipment check shall be performed to ensure that remote operated valve (ROV) is all time functional.	Remote Operated valves are placed on NH3 line to avoid leakage. Performance of the remote operated valve (ROV) is checked periodically for its all time functionality.
xvii)	The company shall strictly follow all the recommendations mentioned in the Chapter on Corporate Responsibility for Environment Protection (CREP).	Being Complied.
xviii)	All the commitments made during the Public Hearing / Public Consultation meeting held on 11th March, 2015 shall be satisfactorily implemented and adequate budget provisions shall be made accordingly.	Being Complied, as applicable.
xix)	Sufficient funds shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial & physical breakup/ details shall be prepared & submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured in a time bound manner.	Noted and complied with.
xx)	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Occupational health surveillance system is in place and records are being maintained as per the Factory Act.
xxi)	As proposed, green belt over 46 Hectares area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the Project Area in downward direction and along roadsides etc. Selection of plant species shall be as per CPCB guidelines in consultation with the DFO.	Green Belt Development under progress in a phased manner.
xxii)	Provision shall be made for the housing of the Construction labour within the site with all necessary infrastructure & facilities. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.	Complied during Construction phase.

#### B. GENERAL CONDITIONS

(i)	The project authorities must strictly adhere to the stipulations made by the state Pollution Control Board (SPCB), State Government and any other statutory authority	All the conditions stipulated in CFE & CFO issued by TSPCB as well as conditions imposed by state authorities are complied with.
(ii)	No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assesses the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted.

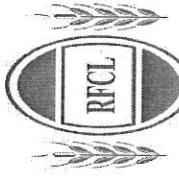
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S.NO	DESCRIPTION	COMPLIANCE STATUS
(iii)	The locations of ambient air quality monitoring stations shall be decided in consultation with the SPCB and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	<p>Two Continuous Ambient Air Quality Monitoring Stations are installed one each in the upwind and downwind directions at following locations</p> <ol style="list-style-type: none"> <li>1. Technical Building.</li> <li>2. Material Gate.</li> </ol> <p>All these monitoring stations are in operation. Real time data of Ambient air quality is connected to TSPCB website.</p> <p>As per the Task force directions (SPCB), 3rd AAQMS procurement is in advance stage.</p>
(iv)	The overall noise level 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 level shall conform to Environmental (Protection) Act , 1986 Rules 1989 viz. 75 dBA (day time) and 70 dBA (night time).	<p>The selection of plant equipment have been done with the specifications of low noise levels.</p> <p>Adequate measure are being followed to control noise levels in the work environment and keep the noise levels below the prescribed limit.</p> <p>Persons working near the noisy machines like Ammonia plant compressor area, Urea Plant compressor area, GT etc. have been provided with well designed ear muffs / plugs.</p> <p>Emergency DG sets are equipped with acoustic enclosure.</p> <p>The ambient noise levels are being monitored at different locations and strictly conforming to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989.</p> <p>Details of Ambient Noise levels are enclosed.</p> <p>(Doc No.: RFCL-TS-EMC-Report-01)</p>
(v)	The company shall harvest rainwater from the roof-tops of buildings and stormwater drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	RFCL has adopted roof top rain water harvesting measures to harvest the run off water to recharge the ground water.
(vi)	During transfer of materials, Spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic waste water and storm water drains.	Garland drains have been constructed to avoid mixing of accidental spillages with domestic waste and storm drains.
(vii)	Usage of Personnel Protection Equipment by all employees/ workers shall be ensured	Necessary PPEs are made available for the plant personnel and being used.
(viii)	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	<p>Training being provided for employees on safety and health aspects of chemical handling on regular basis.</p> <p>Periodic medical check-up of the working staff is being carried out.</p>
(ix)	The company shall also comply with all the environmental protection measures and safeguards proposed in the project report submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	Being Complied, as applicable.
(x)	The company shall undertake CSR activities and all relevant measures for improving the socio-economic conditions of the surrounding area.	Noted.
(xi)	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Being complied.

S.NO	DESCRIPTION	COMPLIANCE STATUS
(xii)	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be setup to carry out the Environmental Management and Monitoring functions.	Environmental Management Cell equipped with full fledged laboratory facilities to carry out the Environmental Management and Monitoring functions is in place and operational.
(xiii)	The company shall earmark sufficient funds for recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	Noted and complied with. The funds earmarked for the environmental protection measures are not allowed to divert for other purpose.
(xiv)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from who suggestions/ representations, if any, were received while processing the proposal.	Complied.
(xv)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the State Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Being complied.
(xvi)	The environmental statement for each financial year ending 31" March in Form-'V' as is mandated shall be submitted to the WB 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 Bhubaneshwar Regional Offices of MoEF by e-mail.	The environmental statement for the financial year ending 31" March'2023 in Form-'V' has been submitted to Regional Office, TSPCB Ramagundam.
(xvii)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	Complied.
xviii)	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	Commercial Operation of Urea has been started on 22.03.2021 & same as intimated to the Regional Office and the Ministry.
8.0	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted

S.NO	DESCRIPTION	COMPLIANCE STATUS
9.0	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner will implement these conditions.	Noted
10.0	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 Wastes (Management, Handling and Trans-boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Air/ Water and HWA Consent order obtained on 07.06.2021 and valid for a period up to 31st March 2026. Public Liability Insurance policy is renewed and valid till 09.02.2024.

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## Ambient Noise Monitoring Report

**Month** : April'23

**Ambient Noise Monitored by** : Environmental Monitoring Cell (EMC)

Doc No: RFCL-TS-EMC-Report-01

S. No	Location	Noise level- dB (A)					
		03.04.2023	08.04.2023	12.04.2023	17.04.2023	21.04.2023	27.04.2023
	Morning shift	Afternoon shift	Night shift	Morning shift	Afternoon shift	Night shift	
1	Technical building	60	53	55	53	58	54
2	Cooling Towers	69	71	68	72	69	69
3	Main Stores	54	47	53	49	51	49
4	UB/HRSG (near Boundary Wall)	68	69	68	66	66	67
5	Captive Power Plant (CPP)	72	73	69	72	70	69
6	Urea plant	68	70	69	69	71	67
7	Bagging building	64	55	64	58	63	54
8	IA/PA plant (Near wall side)	73	74	68	72	73	68
9	Near DG set	58	60	58	56	73	56
10	Raw water pump house	66	68	69	68	68	64

Note:

1. Noise level limits (as per CFO) :

Day Time (6AM -10PM)  
Night Time (10PM -6AM)

- 75 dB (A)  
- 70 dB (A)

2. Morning shift Time :

6AM - 2PM

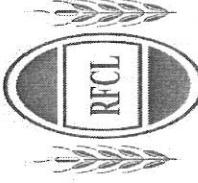
3. Afternoon shift Time :

2PM - 10PM

4. Night shift Time :

10PM - 6AM

QMC/



## Ambient Noise Monitoring Report

**Month**

: May'23

**Ambient Noise Monitored by**

: Environmental Monitoring Cell (EMC)

राष्ट्रीय एनर्जी टेक्नोलॉजीज एंड सेविंग्स लिमिटेड

Doc No: RFCL-TS-EMC-Report-01

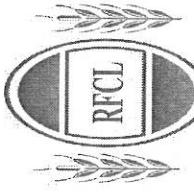
S. No	Location	Noise level-dB (A)			Afternoon shift
		02.05.2023	10.05.2023	16.05.2023	
	Morning shift	Afternoon shift	Night shift	Morning shift	Afternoon shift
1	Technical building	54	55	52	53
2	Cooling Towers	73	70	68	70
3	Main Stores	44	50	46	45
4	UB/HRSG (near Boundary Wall)	69	68	67	67
5	Captive Power Plant (CPP)	72	74	68	70
6	Urea plant	69	74	68	70
7	Bagging building	63	65	65	65
8	IA/PA plant (Near wall side)	73	74	68	74
9	Near DG set	56	64	55	53
10	Raw water pump house	66	71	65	67

Note: 1. Noise level limits (as per CFO) :

Day Time (6AM -10PM) : - 75 dB (A)  
Night Time (10PM -6AM) : - 70 dB (A)

2. Morning shift Time : 6AM - 2PM
3. Afternoon shift Time : 2PM - 10PM
4. Night shift Time : 10PM - 6AM

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# Ambient Noise Monitoring Report

**Month**

: June'23

**Ambient Noise Monitored by**

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Doc No: RFCL-TS-EMC-Report-01

: Environmental Monitoring Cell (EMC)

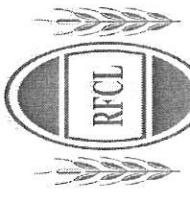
S. No	Location	09.06.2023		15.06.2023		23.06.2023		Noise level- dB (A)	
		Morning shift	Afternoon shift	Night shift	Morning shift	Night shift	Morning shift	Night shift	Morning shift
1	Technical building	50	49	49	49	49	53	53	53
2	Cooling Towers	67	65	68	68	70	70	70	70
3	Main Stores	51	48	49	49	49	48	48	48
4	UB/HRSG (near Boundary Wall)	54	52	53	53	53	65	65	65
5	Captive Power Plant (CPP)	60	59	58	58	58	70	70	70
6	Urea plant	62	60	61	61	61	68	68	68
7	Bagging building	58	53	52	52	52	64	64	64
8	IA/PA plant (Near wall side)	74	70	68	68	68	73	73	73
9	Near DG set	61	60	59	59	59	55	55	55
10	Raw water pump house	59	58	57	57	57	66	66	66

Note:

1. Noise level limits (as per CFO) :

Day Time (6AM -10PM) : - 75 dB (A)  
Night Time (10PM -6AM) : - 70 dB (A)

2. Morning shift Time : 6AM - 2PM
3. Afternoon shift Time : 2PM - 10PM
4. Night shift Time : 10PM - 6AM



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## Ambient Noise Monitoring Report

**Month**

: July'23

**Ambient Noise Monitored by**

: Environmental Monitoring Cell (EMC)

Doc No: RFCL-TS-EMC-Report-01

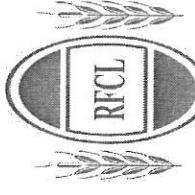
S. No	Location	Noise level- dB (A)		
		07.07.2023	12.07.2023	20.07.2023
	Morning shift	Afternoon shift	Night shift	Morning shift
1	Technical building	52	52	53
2	Cooling Towers	68	65	65
3	Main Stores	48	46	43
4	UB/HRSG (near Boundary Wall)	61	53	52
5	Captive Power Plant (CPP)	63	68	69
6	Urea plant	64	58	58
7	Bagging building	55	53	54
8	IA/PA plant (Near wall side)	73	70	69
9	Near DG set	55	56	55
10	Raw water pump house	68	65	63

Note: 1. Noise level limits (as per CFO) :

Day Time (6AM -10PM) - 75 dB (A)  
Night Time (10PM -6AM) - 70 dB (A)

2. Morning shift Time : 6AM - 2PM
3. Afternoon shift Time : 2PM - 10PM
4. Night shift Time : 10PM - 6AM

8/8/



# Ambient Noise Monitoring Report

**Month**

: August'23

**Ambient Noise Monitored by**

: Environmental Monitoring Cell (EMC)

રામાયુદ્ધ ફાર્મિનગર એંડ સેન્ટ્રલ ટ્રાન્ઝિસ્ટર

Doc No: RFCL-TS-EMC-Report-01

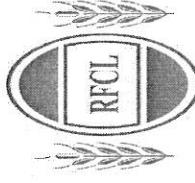
S. No	Location	03.08.2023		08.08.2023		Noise level- dB (A)	
		Morning shift	Afternoon shift	Night shift	Morning shift	Night shift	Morning shift
1	Technical building	56	54	54	54	54	55
2	Cooling Towers	72	70	68	70	70	70
3	Main Stores	45	49	49	49	49	48
4	UB/HRSG (near Boundary Wall)	67	66	67	67	67	68
5	Captive Power Plant (CPP)	72	71	68	72	72	72
6	Urea plant	72	70	67	67	67	64
7	Bagging building	64	63	62	62	62	63
8	IA/PA plant (Near wall side)	72	72	69	72	72	72
9	Near DG set	60	59	61	61	61	61
10	Raw water pump house	65	65	64	64	63	63

Note: 1. Noise level limits (as per CFO) :

Day Time (6AM -10PM) - 75 dB (A)  
Night Time (10PM -6AM) - 70 dB (A)

2. Morning shift Time : 6AM - 2PM
3. Afternoon shift Time : 2PM - 10PM
4. Night shift Time : 10PM - 6AM

23/8/2023  
Ranjan Patel



સ્પાન્શ ફર્મિસિયલ્ એન્ડ કોર્પોરેશન લિમિટેડ

## Ambient Noise Monitoring Report

Doc No: RFCL-TS-EMC-Report-01

**Month** : September'23  
**Ambient Noise Monitored by** : Environmental Monitoring Cell (EMC)

S. No	Location	Noise level- dB (A)		
		12.09.2023	22.09.2023	26.09.2023
1	Technical building	55	55	54
2	Cooling Towers	70	71	68
3	Main Stores	47	48	48
4	UB/HRSG (near Boundary Wall)	70	72	69
5	Captive Power Plant (CPP)	74	73	68
6	Urea plant	71	70	67
7	Bagging building	63	62	62
8	IA/PA plant (Near wall side)	73	72	69
9	Near DG set	69	68	68
10	Raw water pump house	67	66	67

Note:

1. Noise level limits (as per CFO) : Day Time (6AM -10PM) - 75 dB (A)  
Night Time (10PM -6AM) - 70 dB (A)
2. Morning shift Time : 6AM - 2PM
3. Afternoon shift Time : 2PM - 10PM
4. Night shift Time : 10PM - 6AM

23/



## Treated Effluent Water Quality Monitoring Results

**Month** : April'23  
**Nature of Sampling** : Treated Effluent Water  
**Sample collected and tested by** : In-House Laboratory  
**Date of Sample Collection** : 04.04.2023

Doc No: RFCL-TS-EMC-Report-02

### TEST RESULTS

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	7.40	8.05	7.65	7.74	7.62
2	Ammonical Nitrogen	mg/l as N	<50	13.37	11.99	15.12	2.70	1.80
3	Free Ammonical Nitrogen	mg/l as N	<2	0.20	0.72	0.38	0.08	0.04
4	Total Kjeldahl Nitrogen	mg/l as N	<75	19.84	18.73	20.94	8.82	6.61
5	Nitrate nitrogen	mg/l as N	<10	0.55	1.05	0.44	2.85	2.18
6	Phosphate	mg/l as P	<5	0.72	0.96	0.76	2.54	1.36
7	Suspended Solids	mg/l	<100	11.00	17.00	13.00	4.00	2.00
8	BOD	mg/l	<30	9.60	13.40	12.60	4.40	2.80
9	COD	mg/l	<250	42.00	52.00	50.00	20.00	16.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

**Date of Sample Collection:** : 10.04.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	7.54	8.00	7.64	8.00	7.87
2	Ammonical Nitrogen	mg/l as N	<50	15.74	9.02	13.70	4.69	0.60
3	Free Ammonical Nitrogen	mg/l as N	<2	0.31	0.45	0.34	0.23	0.02
4	Total Kjeldahl Nitrogen	mg/l as N	<75	22.04	15.43	19.84	14.32	5.51
5	Nitrate nitrogen	mg/l as N	<10	0.66	1.28	0.78	3.16	1.42
6	Phosphate	mg/l as P	<5	0.68	0.91	0.72	2.74	0.84
7	Suspended Solids	mg/l	<100	11.00	14.00	12.00	3.00	5.00
8	BOD	mg/l	<30	7.20	7.60	7.40	3.80	3.20
9	COD	mg/l	<250	36.00	38.00	36.00	16.00	20.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

Ranjan



## Treated Effluent Water Quality Monitoring Results

Doc No: RFCL-TS-EMC-Report-02

**Month** : April'23  
**Nature of Sampling** : Treated Effluent Water  
**Sample collected and tested by** : In-House Laboratory  
**Date of Sample Collection:** : 17.04.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	6.80	8.12	6.80	8.18	7.92
2	Ammonical Nitrogen	mg/l as N	<50	38.10	11.00	36.50	20.80	3.74
3	Free Ammonical Nitrogen	mg/l as N	<2	-	0.72	-	1.66	0.17
4	Total kjeldahl Nitrogen	mg/l as N	<75	44.09	16.53	46.30	29.76	6.61
5	Nitrate nitrogen	mg/l as N	<10	0.70	1.35	0.76	3.52	0.53
6	Phosphate	mg/l as P	<5	0.45	0.82	0.50	2.08	1.42
7	Suspended Solids	mg/l	<100	12.00	14.00	10.00	6.00	10.00
8	BOD	mg/l	<30	7.80	8.20	7.80	4.90	3.90
9	COD	mg/l	<250	40.00	48.00	42.00	18.00	12.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

Date of Sample Collection: : 24.04.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.07	8.16	8.07	8.20	7.87
2	Ammonical Nitrogen	mg/l as N	<50	19.90	7.93	18.32	11.27	3.24
3	Free Ammonical Nitrogen	mg/l as N	<2	1.29	0.57	1.10	0.90	0.13
4	Total kjeldahl Nitrogen	mg/l as N	<75	28.66	14.32	25.35	19.84	9.92
5	Nitrate nitrogen	mg/l as N	<10	1.63	1.68	1.63	3.03	1.20
6	Phosphate	mg/l as P	<5	0.96	0.61	0.90	1.76	0.68
7	Suspended Solids	mg/l	<100	10.00	31.00	14.00	3.00	2.00
8	BOD	mg/l	<30	5.80	14.60	6.80	4.50	2.20
9	COD	mg/l	<250	28.00	62.00	34.00	21.00	13.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

*6/4/23*



## Treated Effluent Water Quality Monitoring Results

Month :

Nature of Sampling : Treated Effluent Water  
 Sample collected and tested by : In-House Laboratory  
 Date of Sample Collection : 01.05.2023

Doc No: RFCL-TS-EMC-Report-02

### TEST RESULTS

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	7.25	8.25	7.24	7.82	8.12
2	Ammonical Nitrogen	mg/l as N	<50	7.20	5.80	8.20	30.40	1.70
3	Free Ammonical Nitrogen	mg/l as N	<2	0.10	0.50	0.10	1.10	0.10
4	Total kjeldahl Nitrogen	mg/l as N	<75	15.70	11.20	13.40	40.30	5.60
5	Nitrate nitrogen	mg/l as N	<10	2.20	1.60	1.80	3.40	1.40
6	Phosphate	mg/l as P	<5	0.90	0.90	1.10	2.80	0.70
7	Suspended Solids	mg/l	<100	14.00	21.00	3.00	20.00	37.00
8	BOD	mg/l	<30	8.50	10.50	9.50	5.50	3.20
9	COD	mg/l	<250	36.00	43.00	40.00	17.00	16.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

Date of Sample Collection: : 08.05.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.26	8.45	7.80	7.95	8.31
2	Ammonical Nitrogen	mg/l as N	<50	0.40	8.30	6.40	36.50	1.90
3	Free Ammonical Nitrogen	mg/l as N	<2	0.00	1.10	0.20	1.70	0.20
4	Total kjeldahl Nitrogen	mg/l as N	<75	7.80	15.70	13.40	48.20	9.00
5	Nitrate nitrogen	mg/l as N	<10	2.80	2.10	2.10	6.80	2.50
6	Phosphate	mg/l as P	<5	0.70	0.20	0.30	1.90	0.10
7	Suspended Solids	mg/l	<100	12.00	3.00	2.00	4.00	2.00
8	BOD	mg/l	<30	4.80	6.20	5.40	3.90	2.50
9	COD	mg/l	<250	21.00	32.00	25.00	18.00	14.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

8/8/2023



## Treated Effluent Water Quality Monitoring Results

**Month** : May'23  
**Nature of Sampling** : Treated Effluent Water  
**Sample collected and tested by** : In- House Laboratory

**Date of Sample Collection:** : 15.05.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.38	7.32	7.29	8.40	8.02
2	Ammonical Nitrogen	mg/l as N	<50	0.30	17.10	13.80	0.50	0.50
3	Free Ammonical Nitrogen	mg/l as N	<2	0.00	0.20	0.10	0.10	0.00
4	Total kjeldahl Nitrogen	mg/l as N	<75	5.60	24.60	20.20	9.00	3.40
5	Nitrate nitrogen	mg/l as N	<10	0.70	0.70	0.20	5.70	1.00
6	Phosphate	mg/l as P	<5	0.80	0.80	0.60	2.80	0.40
7	Suspended Solids	mg/l	<100	12.00	5.00	3.00	3.00	4.00
8	BOD	mg/l	<30	4.80	4.50	5.00	6.20	3.20
9	COD	mg/l	<250	25.00	22.00	28.00	30.00	16.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

**Date of Sample Collection:** : 22.05.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.33	8.28	7.16	7.92	8.38
2	Ammonical Nitrogen	mg/l as N	<50	1.90	13.50	13.50	14.80	0.50
3	Free Ammonical Nitrogen	mg/l as N	<2	0.20	1.40	0.10	0.50	0.10
4	Total kjeldahl Nitrogen	mg/l as N	<75	6.70	20.20	20.20	25.80	4.50
5	Nitrate nitrogen	mg/l as N	<10	1.00	1.70	1.60	3.50	1.10
6	Phosphate	mg/l as P	<5	0.90	0.90	1.70	2.20	0.20
7	Suspended Solids	mg/l	<100	8.00	11.00	4.00	4.00	3.00
8	BOD	mg/l	<30	4.00	4.20	4.20	2.80	2.00
9	COD	mg/l	<250	20.00	26.00	24.00	14.00	12.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

✓ ✓ ✓



## Treated Effluent Water Quality Monitoring Results

मध्य प्रदेश विद्युत विभाग  
राजस्वलय

Month : May'23  
Nature of Sampling : Treated Effluent Water  
Sample collected and tested by : In-House Laboratory  
Date of Sample Collection: : 29.05.2023

Doc No: RFCL-TS-EMC-Report-02

Parameters

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.14	7.41	7.26	8.10	8.00
2	Ammonical Nitrogen	mg/l as N	<50	1.00	12.10	9.80	1.90	3.20
3	Free Ammonical Nitrogen	mg/l as N	<2	0.10	0.10	0.10	0.50	0.70
4	Total kjeldahl Nitrogen	mg/l as N	<75	7.80	15.70	15.70	12.30	9.00
5	Nitrate nitrogen	mg/l as N	<10	2.60	0.60	0.70	7.50	1.60
6	Phosphate	mg/l as P	<5	1.40	0.50	0.60	2.30	3.10
7	Suspended Solids	mg/l	<100	23.00	5.00	7.00	12.00	13.00
8	BOD	mg/l	<30	4.40	3.00	3.20	1.80	1.80
9	COD	mg/l	<250	27.00	20.00	24.00	16.00	15.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

QWJ





## Treated Effluent Water Quality Monitoring Results

**Month** : June'23  
**Nature of Sampling** : Treated Effluent Water  
**Sample collected and tested by** : In-House Laboratory  
**Date of Sample Collection** : 05.06.2023

Doc No: RFCL-TS-EMC-Report-02

### TEST RESULTS

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.12	8.42	8.02	8.16	8.15
2	Ammonical Nitrogen	mg/l as N	<50	10.50	13.20	11.50	12.70	2.30
3	Free Ammonical Nitrogen	mg/l as N	<2	0.70	1.70	0.60	0.90	0.20
4	Total kjeldahl Nitrogen	mg/l as N	<75	20.10	25.00	18.60	29.60	10.40
5	Nitrate nitrogen	mg/l as N	<10	0.50	0.70	0.40	3.10	1.20
6	Phosphate	mg/l as P	<5	2.10	1.10	1.70	4.70	3.70
7	Suspended Solids	mg/l	<100	8.00	7.70	6.30	22.00	1.70
8	BOD	mg/l	<30	4.60	8.50	6.50	6.50	5.60
9	COD	mg/l	<250	14.90	25.00	21.70	19.40	14.90
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

Date of Sample Collection: : 13.06.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.40	8.41	8.33	8.20	8.23
2	Ammonical Nitrogen	mg/l as N	<50	12.20	10.80	12.10	5.60	8.10
3	Free Ammonical Nitrogen	mg/l as N	<2	1.50	1.40	1.20	0.50	0.70
4	Total kjeldahl Nitrogen	mg/l as N	<75	13.90	22.70	24.60	13.80	13.10
5	Nitrate nitrogen	mg/l as N	<10	1.70	2.00	0.60	4.70	0.60
6	Phosphate	mg/l as P	<5	3.00	2.30	3.10	2.80	4.30
7	Suspended Solids	mg/l	<100	23.00	15.60	14.30	10.30	8.30
8	BOD	mg/l	<30	4.50	6.20	9.90	5.00	4.20
9	COD	mg/l	<250	15.00	21.00	32.00	12.60	10.80
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

QSN/

## Treated Effluent Water Quality Monitoring Results



Page No. 14 of 14

Doc No: RFCL-TS-EMC-Report-02

**Month** : June'23

**Nature of Sampling** : Treated Effluent Water

**Sample collected and tested by**

**Date of Sample Collection:** : 19.06.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.43	8.14	8.10	8.05	8.11
2	Ammonical Nitrogen	mg/l as N	<50	13.80	14.30	15.30	29.30	3.20
3	Free Ammonical Nitrogen	mg/l as N	<2	1.70	1.00	1.00	1.80	0.20
4	Total kjeldahl Nitrogen	mg/l as N	<75	27.70	22.40	21.00	41.20	11.50
5	Nitrate nitrogen	mg/l as N	<10	1.10	0.70	0.70	2.80	0.50
6	Phosphate	mg/l as P	<5	1.00	1.10	1.30	2.20	0.40
7	Suspended Solids	mg/l	<100	26.00	6.00	8.60	15.00	6.50
8	BOD	mg/l	<30	11.40	3.20	5.10	3.80	6.90
9	COD	mg/l	<250	49.60	13.50	18.00	18.00	16.50
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

**Date of Sample Collection:** : 26.06.2023

S.No.	Parameters	Unit	Limiting Standards	* Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	-	7.93	7.94	7.37	8.23
2	Ammonical Nitrogen	mg/l as N	<50	-	12.60	13.10	6.00	22.50
3	Free Ammonical Nitrogen	mg/l as N	<2	-	0.60	0.60	0.10	2.00
4	Total kjeldahl Nitrogen	mg/l as N	<75	-	21.30	26.60	15.00	30.40
5	Nitrate nitrogen	mg/l as N	<10	-	0.70	0.70	5.70	2.10
6	Phosphate	mg/l as P	<5	-	0.80	2.00	2.10	0.40
7	Suspended Solids	mg/l	<100	-	10.70	12.60	15.30	3.00
8	BOD	mg/l	<30	-	6.80	4.80	4.10	3.70
9	COD	mg/l	<250	-	22.50	16.50	17.50	16.50
10	Oil & Grease	mg/l	<10	-	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	-	ND	ND	ND	ND

\* Low Level in GP-1 on 26.06.2023.

✓ ✓ ✓



## Treated Effluent Water Quality Monitoring Results

**Month** : July'23  
**Nature of Sampling** : Treated Effluent Water  
**Sample collected and tested by** : In-House Laboratory  
**Date of Sample Collection** : 04.07.2023

Doc No: RFCL-TS-EMC-Report-02

### TEST RESULTS

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1*	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	-	7.34	7.24	8.35	8.22
2	Ammonical Nitrogen	mg/l as N	< 50	-	7.30	7.10	1.50	0.10
3	Free Ammonical Nitrogen	mg/l as N	< 2	-	0.10	0.10	0.20	0.10
4	Total kjeldahl Nitrogen	mg/l as N	< 75	-	14.60	14.60	7.80	0.10
5	Nitrate nitrogen	mg/l as N	< 10	-	1.90	1.80	1.60	1.10
6	Phosphate	mg/l as P	< 5	-	2.10	2.00	2.50	2.10
7	Suspended Solids	mg/l	< 100	-	10.00	8.00	17.00	4.00
8	BOD	mg/l	< 30	-	6.00	6.80	4.00	1.50
9	COD	mg/l	< 250	-	22.00	27.00	16.00	6.00
10	Oil & Grease	mg/l	< 10	-	<10	<10	<10	<10
11	Vanadium	mg/l as V	< 0.2	-	ND	ND	ND	ND

\* Low Level in GP-1 on 04.07.2023.

Date of Sample Collection: : 11.07.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1*	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	-	7.78	7.36	8.05	7.71
2	Ammonical Nitrogen	mg/l as N	< 50	-	8.30	10.70	30.50	1.40
3	Free Ammonical Nitrogen	mg/l as N	< 2	-	0.30	0.10	1.80	0.04
4	Total kjeldahl Nitrogen	mg/l as N	< 75	-	13.40	17.90	46.00	4.40
5	Nitrate nitrogen	mg/l as N	< 10	-	0.90	0.40	7.10	0.50
6	Phosphate	mg/l as P	< 5	-	1.70	1.80	3.90	1.70
7	Suspended Solids	mg/l	< 100	-	11.00	14.00	15.00	6.00
8	BOD	mg/l	< 30	-	5.50	6.00	6.20	2.80
9	COD	mg/l	< 250	-	26.00	31.00	25.00	18.00
10	Oil & Grease	mg/l	< 10	-	<10	<10	<10	<10
11	Vanadium	mg/l as V	< 0.2	-	ND	ND	ND	ND

\* Low Level in GP-1 on 11.07.2023.

*[Signature]*

## Treated Effluent Water Quality Monitoring Results



मध्ये वातावरणाचा नियन्त्रण

Doc No: RFCL-TS-EM/C-Report-02

Month

: July'23

Nature of Sampling

: Treated Effluent Water

Sample collected and tested by

: In-House Laboratory

Date of Sample Collection:

: 18.07.2023

S.No.	Parameters	Unit	Limiting Standards	* Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	-	7.35	7.40	8.15	8.15
2	Ammonical Nitrogen	mg/l as N	<50	-	7.50	8.80	24.20	1.70
3	Free Ammonical Nitrogen	mg/l as N	<2	-	0.10	0.10	1.80	0.20
4	Total Kjeldahl Nitrogen	mg/l as N	<75	-	14.60	15.70	40.30	9.00
5	Nitrate nitrogen	mg/l as N	<10	-	0.80	0.80	6.70	1.20
6	Phosphate	mg/l as P	<5	-	2.20	2.80	3.50	1.40
7	Suspended Solids	mg/l	<100	-	10.00	12.00	14.00	7.00
8	BOD	mg/l	<30	-	6.00	6.50	5.80	2.20
9	COD	mg/l	<250	-	30.00	33.40	28.00	14.00
10	Oil & Grease	mg/l	<10	-	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	-	ND	ND	ND	ND

\* Low Level in GP-1 on 18.07.2023.

Date of Sample Collection: : 25.07.2023

S.No.	Parameters	Unit	Limiting Standards	* Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.12	8.21	8.22	8.02	8.04
2	Ammonical Nitrogen	mg/l as N	<50	4.10	23.00	21.40	35.00	1.50
3	Free Ammonical Nitrogen	mg/l as N	<2	0.30	1.80	1.70	1.80	0.10
4	Total Kjeldahl Nitrogen	mg/l as N	<75	11.20	31.40	29.10	49.30	7.80
5	Nitrate nitrogen	mg/l as N	<10	2.40	0.90	0.60	4.30	3.40
6	Phosphate	mg/l as P	<5	2.00	1.90	1.90	1.10	1.10
7	Suspended Solids	mg/l	<100	4.00	9.00	7.00	25.00	6.00
8	BOD	mg/l	<30	4.40	4.00	4.10	2.80	1.10
9	COD	mg/l	<250	22.00	20.00	22.00	14.00	8.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

*Sanjay*

## Treated Effluent Water Quality Monitoring Results



राष्ट्रीय पानी की सुविधा विभाग

**Month** : August'23  
**Nature of Sampling** : Treated Effluent Water  
**Sample collected and tested by** : In-House Laboratory  
**Date of Sample Collection** : 03.08.2023

Doc No: RFCL-TS-EMC-Report-02

### TEST RESULTS

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.35	7.54	7.61	8.21	7.74
2	Ammonical Nitrogen	mg/l as N	<50	1.20	5.00	5.10	19.10	0.20
3	Free Ammonical Nitrogen	mg/l as N	<2	0.10	0.10	0.10	1.50	0.01
4	Total kjeldahl Nitrogen	mg/l as N	<75	5.60	11.20	11.20	30.80	5.60
5	Nitrate nitrogen	mg/l as N	<10	0.90	1.20	1.10	5.70	2.60
6	Phosphate	mg/l as P	<5	0.70	0.80	0.80	3.50	0.70
7	Suspended Solids	mg/l	<100	38.00	24.00	16.00	11.00	5.00
8	BOD	mg/l	<30	7.50	6.40	6.80	4.20	3.10
9	COD	mg/l	<250	48.00	38.00	42.00	16.00	10.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

**Date of Sample Collection:** : 10.08.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.32	8.38	8.38	8.35	7.84
2	Ammonical Nitrogen	mg/l as N	<50	1.10	0.30	0.20	5.00	0.20
3	Free Ammonical Nitrogen	mg/l as N	<2	0.10	0.04	0.03	0.60	0.01
4	Total kjeldahl Nitrogen	mg/l as N	<75	5.50	8.20	8.20	19.30	8.20
5	Nitrate nitrogen	mg/l as N	<10	0.90	2.40	2.20	7.10	3.70
6	Phosphate	mg/l as P	<5	1.30	1.10	1.20	3.10	0.80
7	Suspended Solids	mg/l	<100	14.00	8.00	8.00	17.00	4.00
8	BOD	mg/l	<30	7.80	8.10	7.90	4.40	3.60
9	COD	mg/l	<250	50.00	52.00	50.00	15.00	15.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND



## Treated Effluent Water Quality Monitoring Results

Doc No: RFCL-TS-EMC-Report-02

**Month**

**Nature of Sampling**

: Treated Effluent Water  
: In-House Laboratory

**Date of Sample Collection:**

: 18.08.2023

**Date of Sample Collection:**

: 28.08.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.31	7.66	7.55	8.25	7.82
2	Ammonical Nitrogen	mg/l as N	< 50	1.50	4.40	3.90	11.10	0.40
3	Free Ammonical Nitrogen	mg/l as N	< 2	0.20	0.10	0.10	1.00	0.01
4	Total kjeldahl Nitrogen	mg/l as N	< 75	8.20	11.00	11.00	27.40	5.50
5	Nitrate nitrogen	mg/l as N	< 10	1.60	2.10	2.00	6.40	2.60
6	Phosphate	mg/l as P	< 5	0.90	1.20	1.40	2.80	0.60
7	Suspended Solids	mg/l	< 100	14.00	9.00	8.00	7.00	5.00
8	BOD	mg/l	< 30	8.40	8.00	7.80	4.80	3.00
9	COD	mg/l	< 250	54.00	48.00	46.00	20.00	12.00
10	Oil & Grease	mg/l	< 10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	< 0.2	ND	ND	ND	ND	ND

**Date of Sample Collection:**

: 28.08.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.21	7.05	7.18	7.98	7.65
2	Ammonical Nitrogen	mg/l as N	< 50	2.20	11.90	12.00	31.80	2.80
3	Free Ammonical Nitrogen	mg/l as N	< 2	0.20	-	0.10	1.60	0.10
4	Total kjeldahl Nitrogen	mg/l as N	< 75	8.30	22.20	22.20	50.00	11.10
5	Nitrate nitrogen	mg/l as N	< 10	0.90	1.00	1.10	7.40	3.20
6	Phosphate	mg/l as P	< 5	0.60	0.60	0.60	2.60	0.40
7	Suspended Solids	mg/l	< 100	24.00	18.00	14.00	10.00	8.00
8	BOD	mg/l	< 30	7.80	8.60	8.00	4.90	2.10
9	COD	mg/l	< 250	52.00	55.00	48.00	29.00	12.00
10	Oil & Grease	mg/l	< 10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	< 0.2	ND	ND	ND	ND	ND

*✓*



## Treated Effluent Water Quality Monitoring Results

**Month**  
**Nature of Sampling**  
**Sample collected and tested by**  
**Date of Sample Collection**

: September'23  
 : Treated Effluent Water  
 : In-House Laboratory  
 : 04.09.2023

### TEST RESULTS

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.18	8.02		7.92	7.71
2	Ammonical Nitrogen	mg/l as N	<50	3.30	2.00		35.30	3.90
3	Free Ammonical Nitrogen	mg/l as N	<2	0.30	0.10		1.60	0.10
4	Total kjeldahl Nitrogen	mg/l as N	<75	8.80	7.80		50.00	11.10
5	Nitrate nitrogen	mg/l as N	<10	0.70	0.70		5.10	3.40
6	Phosphate	mg/l as P	<5	0.40	0.30		1.20	0.20
7	Suspended Solids	mg/l	<100	14.00	16.00		5.00	4.00
8	BOD	mg/l	<30	6.50	8.40		5.60	2.60
9	COD	mg/l	<250	44.00	56.00		36.00	14.00
10	Oil & Grease	mg/l	<10	<10	<10		<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND		ND	ND

Date of Sample Collection: : 11.09.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.10	8.07		8.10	8.03
2	Ammonical Nitrogen	mg/l as N	<50	5.20	4.30		4.20	22.90
3	Free Ammonical Nitrogen	mg/l as N	<2	0.30	0.26		0.27	1.40
4	Total kjeldahl Nitrogen	mg/l as N	<75	11.10	11.70		41.70	12.20
5	Nitrate nitrogen	mg/l as N	<10	0.90	1.20		1.00	3.60
6	Phosphate	mg/l as P	<5	0.40	0.50		0.70	0.30
7	Suspended Solids	mg/l	<100	12.00	19.50		9.00	2.00
8	BOD	mg/l	<30	7.60	8.50		7.80	5.20
9	COD	mg/l	<250	45.00	54.00		48.00	18.00
10	Oil & Grease	mg/l	<10	<10	<10		<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND		ND	ND

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## Treated Effluent Water Quality Monitoring Results

Doc No: RFCL-TS-EMC-Report-02

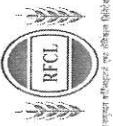
**Month** : September'23  
**Nature of Sampling** : Treated Effluent Water  
**Sample collected and tested by** : In-House Laboratory  
**Date of Sample Collection:** : 21.09.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	7.83	7.58	7.61	8.02	7.38
2	Ammonical Nitrogen	mg/l as N	<50	1.00	0.50	1.20	35.20	0.10
3	Free Ammonical Nitrogen	mg/l as N	<2	0.04	0.01	0.03	1.80	<0.01
4	Total kieldahl Nitrogen	mg/l as N	<75	8.80	5.60	6.60	54.40	3.30
5	Nitrate nitrogen	mg/l as N	<10	2.10	1.40	1.50	8.50	1.00
6	Phosphate	mg/l as P	<5	0.70	0.90	0.80	2.10	0.60
7	Suspended Solids	mg/l	<100	27.50	7.50	12.00	15.50	19.00
8	BOD	mg/l	<30	7.60	8.00	7.40	6.00	2.60
9	COD	mg/l	<250	46.00	48.00	46.00	38.00	14.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

**Date of Sample Collection:** : 26.09.2023

S.No.	Parameters	Unit	Limiting Standards	Guard Pond 1	Guard Pond 2	Treated Effluent Pump Discharge	Strom water Pit	Material Gate Trench
1	pH.		6.5-8.5	8.01	7.63	7.43	7.87	7.67
2	Ammonical Nitrogen	mg/l as N	<50	6.60	5.10	6.80	36.50	0.70
3	Free Ammonical Nitrogen	mg/l as N	<2	0.30	0.10	0.10	1.60	0.02
4	Total kieldahl Nitrogen	mg/l as N	<75	13.30	12.20	16.60	55.50	5.50
5	Nitrate nitrogen	mg/l as N	<10	1.30	1.20	1.30	5.50	2.20
6	Phosphate	mg/l as P	<5	0.30	1.10	1.50	1.30	1.00
7	Suspended Solids	mg/l	<100	10.00	11.00	6.00	16.50	28.00
8	BOD	mg/l	<30	7.80	8.40	7.60	4.80	2.80
9	COD	mg/l	<250	52.00	55.00	48.00	28.00	16.00
10	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
11	Vanadium	mg/l as V	<0.2	ND	ND	ND	ND	ND

*[Signature]*



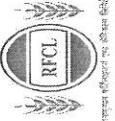
## Ground Water Quality Monitoring Results

**Month** : April'23  
**Nature of Sampling** : Ground Water  
**Sample collected and tested by** : In- House Laboratory  
**Date of Sample Collection :-** : 04.04.2023

### TEST RESULTS

S.No.	Parameters	Limiting Standards	Factory Premises					Nearby Villages		
			Central Workshop	Near Guard Pond	Technical Building	Guest House	Inside Township	Veerlapalli	Gouthami Nagar	Elkalapalli
1	Temperature	30 degC	27.50	27.60	28.00	28.00	27.50	27.50	28.00	28.50
2	pH	6.5-8.5	7.18	6.95	7.06	7.12	7.35	7.04	7.24	7.12
3	Conductivity	< 2600 $\mu\text{S}/\text{cm}$	902.00	1860.00	880.00	1165.00	845.00	2055.00	1340.00	1395.00
4	BOD	< 2.0 mg/L	1.35	1.45	1.05	1.30	1.10	1.55	1.10	1.15
5	Nitrate as N	< 45 mg/L	1.52	2.10	1.24	1.78	1.30	24.60	5.15	13.40
6	Chloride	< 250 mg/L	53.50	131.40	60.80	63.50	43.80	153.30	111.90	121.60
9	Dissolved Oxygen	> 6 mg/L	6.25	6.25	6.20	6.20	6.25	6.30	6.20	6.20
7	Ammonia as N	< 0.5 mg/L	0.05	0.10	0.05	0.05	0.05	0.11	0.05	0.07
8	Total coliform (MPN/100ml)	< 50	NT	NT	NT	NT	NT	NT	NT	NT

Q/



## Ground Water Quality Monitoring Results

Doc No: RFCL-TS-EMC-Report-03

**Month** : May'23  
**Nature of Sampling** : Ground Water  
**Sample collected and tested by** : In- House Laboratory  
**Date of Sample Collection :-** : 08.05.2023

### TEST RESULTS

S.No.	Parameters	Limiting Standards	Factory Premises					Nearby Villages	
			Central Workshop	Near Guard Pond	Technical Building	Guest House	Inside Township	Veerlapalli	Gouthami Nagar
1	Temperature	30 degC	28.50	29.00	29.50	29.00	29.50	29.50	29.50
2	pH	6.5-8.5	7.14	6.75	6.98	7.20	7.18	7.08	6.94
3	Conductivity	<2600 $\mu\text{S}/\text{cm}$	910.00	1650.00	865.00	1135.00	778.00	1620.00	1215.00
4	BOD	<2.0 mg/L	0.90	1.10	0.80	1.00	0.80	1.00	1.00
5	Nitrate as N	<45 mg/L	1.64	2.40	1.36	1.92	1.26	35.20	6.65
6	Chloride	<250 mg/L	56.40	126.50	60.40	58.20	66.00	128.00	100.00
9	Dissolved Oxygen	>6 mg/L	6.10	6.10	6.10	6.05	6.10	6.10	6.10
7	Ammonia as N	<0.5 mg/L	0.05	0.12	0.05	0.13	0.08	0.10	0.05
8	Total coliform (MNP/100ml)	<50	NT	NT	NT	NT	NT	NT	NT

✓

## Ground Water Quality Monitoring Results

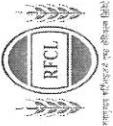
**Month** : June'23  
**Nature of Sampling** : Ground Water  
**Sample collected and tested by** : In-House Laboratory  
**Date of Sample Collection :-** 12.06.2023

Doc No: RFCL-TS-EMC-Report-03

### TEST RESULTS

S.No.	Parameters	Limiting Standards	Factory Premises				Nearby Villages	
			Central Workshop	Near Guard Pond	Technical Building	Guest House	Inside Township	Veerlapalli
1	Temperature	30 degC	29.70	29.60	29.00	29.70	29.80	29.80
2	pH	6.5-8.5	7.30	6.90	7.40	7.40	7.00	6.90
3	Conductivity	< 2600 $\mu$ S/cm	810.00	1780.00	795.00	1017.00	652.00	1641.00
4	BOD	< 2.0 mg/L	0.80	1.70	0.60	0.90	0.60	1.20
5	Nitrate as N	< 45 mg/L	1.70	3.20	1.20	1.50	1.90	29.50
6	Chloride	<250 mg/L	60.00	118.00	72.00	59.00	73.00	127.00
9	Dissolved Oxygen	>6 mg/L	6.10	6.10	6.10	6.20	6.10	6.10
7	Ammonia as N	<0.5 mg/L	<0.1	0.20	<0.1	<0.1	<0.1	<0.1
8	Total coliform (MNP/100ml)	< 50	NT	NT	NT	NT	NT	NT





## Ground Water Quality Monitoring Results

Month : July'23  
Nature of Sampling : Ground Water  
Sample collected and tested by : In-House Laboratory  
Date of Sample Collection :- : 11.07.2023

Doc No: RFCL-TS-EMC-Report-03

### TEST RESULTS

S.No.	Parameters	Limiting Standards	Factory Premises					Nearby Villages	
			Central Workshop	Near Guard Pond	Technical Building	Guest House	Inside Township	Veerlapalli	Gouthami Nagar
1	Temperature	30 degC	28.00	28.00	27.00	27.50	27.50	27.50	28.00
2	pH	6.5-8.5	7.25	6.85	7.08	7.57	7.71	7.17	6.91
3	Conductivity	< 2600 $\mu\text{S}/\text{cm}$	845.00	1800.00	855.00	1030.00	590.00	1530.00	1580.00
4	BOD	< 2.0 mg/L	0.80	1.40	1.00	0.80	0.40	1.00	1.30
5	Nitrate as N	< 45 mg/L	1.28	2.60	1.48	1.70	0.30	30.00	8.20
6	Chloride	< 250 mg/L	54.00	132.00	64.00	58.00	66.00	114.00	182.00
9	Dissolved Oxygen	> 6 mg/L	6.05	6.05	6.10	6.15	6.10	6.00	6.00
7	Ammonia as N	< 0.5 mg/L	0.05	0.14	0.05	0.05	0.14	0.16	0.05
8	Total coliform (MNP/100ml)	< 50	NT	NT	NT	NT	NT	NT	NT

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## Ground Water Quality Monitoring Results

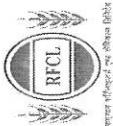
Month : August'23  
Nature of Sampling : Ground Water  
Sample collected and tested by : In- House Laboratory  
Date of Sample Collection :- : 03.08.2023

### TEST RESULTS

S.No.	Parameters	Limiting Standards	Factory Premises					Nearby Villages	
			Central Workshop	Near Guard Pond	Technical Building	Guest House	Inside Township	Veerlapalli	Gouthami Nagar
1	Temperature	30 degC	26.50	26.00	26.50	26.00	26.00	25.50	26.00
2	pH	6.5-8.5	7.10	6.94	7.14	7.26	7.99	7.16	6.86
3	Conductivity	< 2600 $\mu\text{S}/\text{cm}$	820.00	1745.00	900.00	1090.00	460.00	1549.00	1427.00
4	BOD	< 2.0 mg/L	0.60	1.20	0.90	0.75	0.50	1.20	1.10
5	Nitrate as N	< 45 mg/L	1.04	2.20	1.26	1.35	0.73	21.70	15.50
6	Chloride	<250 mg/L	50.50	146.00	68.00	53.50	34.00	98.00	112.00
9	Dissolved Oxygen	>6 mg/L	6.10	6.05	6.20	6.10	6.15	6.05	6.10
7	Ammonia as N	<0.5 mg/L	0.05	0.16	0.05	0.05	0.08	0.18	0.05
8	Total coliform (MNP/100ml)	< 50	NT	NT	NT	NT	NT	NT	NT

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# Ground Water Quality Monitoring Results



Doc No: RFCL-TS-EMC-Report-03

**Month** : September'23

**Nature of Sampling** : Ground Water

**Sample collected and tested by**

: In-House Laboratory

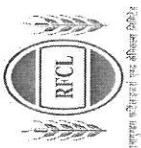
**Date of Sample Collection :-**

: 04.09.2023

## TEST RESULTS

S.No.	Parameters	Limiting Standards	Factory Premises				Nearby Villages	
			Central Workshop	Near Guard Pond	Technical Building	Guest House	Inside Township	Veerlapalli
1	Temperature	30 degC	25.50	25.50	25.00	25.00	25.50	25.00
2	pH	6.5-8.5	7.15	7.05	7.28	7.30	7.95	7.24
3	Conductivity	< 2600 $\mu\text{S}/\text{cm}$	840.00	1780.00	915.00	1160.00	375.00	1474.00
4	BOD	< 2.0 mg/L	0.70	1.10	1.05	0.80	0.60	1.10
5	Nitrate as N	< 45 mg/L	1.20	2.40	1.28	1.32	0.64	23.60
6	Chloride	< 250 mg/L	53.50	136.00	72.00	59.00	30.00	88.00
9	Dissolved Oxygen	> 6 mg/L	6.15	6.10	6.10	6.05	6.10	6.00
7	Ammonia as N	< 0.5 mg/L	< 0.1	0.20	< 0.1	< 0.1	< 0.1	< 0.1
8	Total coliform (MNP/100ml)	< 50	NT	NT	NT	NT	NT	NT

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## Ambient Air Quality Monitoring Results

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Doc No: RFCL-TS-EMC-Report-04

**Month** : April'23  
**Nature of Sampling** : Ambient Air  
**Sample collected and tested by** : In- House Laboratory

### TEST RESULTS

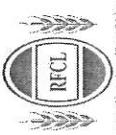
**Location** : Technical Building

S.No.	Parameters	Unit	Permissible limits (NAAQS)	05.04.2023	12.04.2023	19.04.2023	26.04.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	85.2	91.6	92.5	78.3
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	37.0	41.1	41.6	37.4
3	SOx	$\mu\text{g}/\text{m}^3$	80	10.8	12.0	11.8	12.6
4	NOx	$\mu\text{g}/\text{m}^3$	80	9.7	10.5	10.7	11.2
5	NH3	$\mu\text{g}/\text{m}^3$	400	80.5	83.8	88.4	85.6

**Location** : Material Gate

S.No.	Parameters	Unit	Permissible limits (NAAQS)	05.04.2023	12.04.2023	19.04.2023	26.04.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	93.8	96.6	95.6	84.5
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	42.5	45.6	46.2	40.6
3	SOx	$\mu\text{g}/\text{m}^3$	80	10.2	11.6	11.2	11.8
4	NOx	$\mu\text{g}/\text{m}^3$	80	9.1	9.8	10.1	10.5
5	NH3	$\mu\text{g}/\text{m}^3$	400	76.4	75.4	78.8	80.4

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संग्रहीत दिनांक: १५ अप्रैल २०२३

## Ambient Air Quality Monitoring Results

**Month** : May'23  
**Nature of Sampling** : Ambient Air  
**Sample collected and tested by** : In- House Laboratory

Doc No: RFCL-TS-EMC-Report-04

### TEST RESULTS

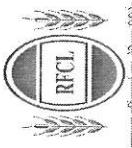
**Location** : Technical Building

S.No.	Parameters	Unit	Permissible limits (NAAQS)	02.05.2023	09.05.2023	16.05.2023	23.05.2023	30.05.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	94.2	90.4	96.4	92.8	86.2
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	46.2	44.6	48.6	45.8	42.6
3	SOx	$\mu\text{g}/\text{m}^3$	80	12.4	13.2	12.8	14.2	13.4
4	NOx	$\mu\text{g}/\text{m}^3$	80	9.8	10.6	10.0	12.6	11.4
5	NH3	$\mu\text{g}/\text{m}^3$	400	94.5	86.0	104.0	92.0	88.0

**Location** : Material Gate

S.No.	Parameters	Unit	Permissible limits (NAAQS)	02.05.2023	09.05.2023	16.05.2023	23.05.2023	30.05.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	98.6	94.8	92.6	96.6	92.2
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	48.6	48.0	44.2	49.4	46.4
3	SOx	$\mu\text{g}/\text{m}^3$	80	10.8	11.4	11.0	13.0	12.6
4	NOx	$\mu\text{g}/\text{m}^3$	80	8.4	9.2	8.8	10.2	9.6
5	NH3	$\mu\text{g}/\text{m}^3$	400	84.4	78.5	88.0	80.1	76.5

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## Ambient Air Quality Monitoring Results

**Month** : June'23  
**Nature of Sampling** : Ambient Air  
**Sample collected and tested by** : In-House Laboratory

Doc No: RFCL-TS-EMC-Report-04

### TEST RESULTS

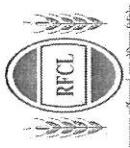
**Location** : Technical Building

S.No.	Parameters	Unit	Permissible limits (NAAQS)	06.06.2023	13.06.2023	20.06.2023	27.06.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	89.5	90.1	94.3	92.0
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	45.1	40.8	48.4	48.1
3	SOx	$\mu\text{g}/\text{m}^3$	80	10.1	11.8	9.8	10.9
4	NOx	$\mu\text{g}/\text{m}^3$	80	12.1	13.2	10.0	11.6
5	NH3	$\mu\text{g}/\text{m}^3$	400	81.0	89.6	79.2	88.0

**Location** : Material Gate

S.No.	Parameters	Unit	Permissible limits (NAAQS)	06.06.2023	13.06.2023	20.06.2023	27.06.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	91.8	90.5	92.6	87.9
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	50.2	47.1	41.9	39.5
3	SOx	$\mu\text{g}/\text{m}^3$	80	11.6	12.5	10.4	11.0
4	NOx	$\mu\text{g}/\text{m}^3$	80	9.9	11.8	12.0	10.4
5	NH3	$\mu\text{g}/\text{m}^3$	400	86.2	77.5	72.9	85.9

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राजस्थान सरकारी विद्युत उपकरण निकाय

## Ambient Air Quality Monitoring Results

Doc No: RFCL-TS-EMC-Report-04

**Month** : July'23  
**Nature of Sampling** : Ambient Air  
**Sample collected and tested by** : In-House Laboratory

### TEST RESULTS

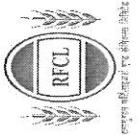
**Location** : Technical Building

S.No.	Parameters	Unit	Permissible limits (NAAQS)	05.07.2023	11.07.2023	18.07.2023	25.07.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	52.9	59.7	42.7	41.5
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	20.4	24.5	12.3	16.3
3	SOx	$\mu\text{g}/\text{m}^3$	80	14.5	13.8	14.1	13.2
4	NOx	$\mu\text{g}/\text{m}^3$	80	10.6	10.4	10.8	9.8
5	NH3	$\mu\text{g}/\text{m}^3$	400	84.8	98.0	124.0	106.0

**Location** : Material Gate

S.No.	Parameters	Unit	Permissible limits (NAAQS)	04.07.2023	11.07.2023	18.07.2023	25.07.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	54.0	64.0	49.0	44.6
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	28.6	32.7	16.3	20.4
3	SOx	$\mu\text{g}/\text{m}^3$	80	12.4	11.6	11.8	12.0
4	NOx	$\mu\text{g}/\text{m}^3$	80	9.6	9.0	9.4	10.2
5	NH3	$\mu\text{g}/\text{m}^3$	400	66.5	70.0	106.0	84.0

8/7/2023



## Ambient Air Quality Monitoring Results

मध्य प्रदेश राज्य संचालन बोर्ड  
Madhya Pradesh State Operation Board

Doc No: RECCL-TS-EMC-Report-04

**Month** : August'23  
**Nature of Sampling** : Ambient Air  
**Sample collected and tested by** : In- House Laboratory

### TEST RESULTS

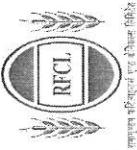
**Location** : Technical Building

S.No.	Parameters	Unit	Permissible limits (NAAQS)	01.08.2023	08.08.2023	15.08.2023	22.08.2023	29.08.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	75.0	63.0	56.0	52.0	46.0
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	28.0	24.0	20.0	16.0	16.0
3	SOx	$\mu\text{g}/\text{m}^3$	80	12.4	10.8	11.6	13.4	12.0
4	NOx	$\mu\text{g}/\text{m}^3$	80	9.2	8.4	8.8	9.6	8.6
5	NH3	$\mu\text{g}/\text{m}^3$	400	66.0	56.0	75.0	88.0	96.0

**Location** : Material Gate

S.No.	Parameters	Unit	Permissible limits (NAAQS)	01.08.2023	08.08.2023	15.08.2023	22.08.2023	29.08.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	82.0	70.0	58.0	54.0	50.0
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	36.0	32.0	24.0	20.0	20.0
3	SOx	$\mu\text{g}/\text{m}^3$	80	11.4	10.4	12.4	12.0	10.8
4	NOx	$\mu\text{g}/\text{m}^3$	80	8.6	8.4	9.0	8.6	8.2
5	NH3	$\mu\text{g}/\text{m}^3$	400	66.0	48.0	64.0	72.0	84.0

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## Ambient Air Quality Monitoring Results

ஆற்காடு ரெப்பிளிகியர் டீகிள் எஃப்ஸி

**Month** : September'23  
**Nature of Sampling** : Ambient Air  
**Sample collected and tested by** : In- House Laboratory

Doc No: RFCL-TS-EMC-Report-04

### TEST RESULTS

**Location** : Technical Building

S.No.	Parameters	Unit	Permissible limits (NAAQS)	06.09.2023	13.09.2023	20.09.2023	27.09.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	35.0	42.0	34.0	48.0
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	18.0	20.0	12.0	23.0
3	SOx	$\mu\text{g}/\text{m}^3$	80	8.4	7.6	6.8	7.2
4	NOx	$\mu\text{g}/\text{m}^3$	80	6.0	5.4	3.6	4.0
5	NH3	$\mu\text{g}/\text{m}^3$	400	75.0	79.0	56.0	80.0

**Location** : Material Gate

S.No.	Parameters	Unit	Permissible limits (NAAQS)	06.09.2023	13.09.2023	20.09.2023	27.09.2023
1	PM10	$\mu\text{g}/\text{m}^3$	100	25.0	28.0	24.0	36.0
2	PM2.5	$\mu\text{g}/\text{m}^3$	60	8.0	9.0	8.0	14.0
3	SOx	$\mu\text{g}/\text{m}^3$	80	1.6	2.4	1.8	1.6
4	NOx	$\mu\text{g}/\text{m}^3$	80	1.4	1.6	1.0	1.8
5	NH3	$\mu\text{g}/\text{m}^3$	400	2.0	5.0	4.0	10.0

08/10/2023



## Stack Emission Monitoring Readings

**Month** : April'23  
**Nature of Sampling** : Stack Emission  
**Sample collected and tested by** : In-house Laboratory

### TEST RESULTS

Location :-

Primary Reformer Stack

S.No	Parameters	Permissible limits	01.04.2023	08.04.2023	15.04.2023	22.04.2023	29.04.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	1.6	1.4	1.2	1.4	1.0
3	NOx	400 mg/Nm <sup>3</sup>	48.0	52.0	46.0	50.0	48.0

Location :-

Utility Boiler Stack

S.No	Parameters	Permissible limits	01.04.2023	08.04.2023	15.04.2023	22.04.2023	29.04.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	1.4	1.5	1.2	1.2	1.6
3	NOx	400 mg/Nm <sup>3</sup>	64.0	60.0	62.0	63.0	61.0

Location :-

HRSG Stack

S.No	Parameters	Permissible limits	01.04.2023	08.04.2023	15.04.2023	22.04.2023	29.04.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	1.3	1.5	1.6	1.4	1.2
3	NOx	400 mg/Nm <sup>3</sup>	145.0	142.0	140.0	144.0	148.0

Location :-

Prilling Tower

S.No	Parameters	Permissible limits	01.04.2023	08.04.2023	15.04.2023	22.04.2023	29.04.2023
1	Particulate Matter	50 mg/Nm <sup>3</sup>	40.50	47.60	42.00	44.80	43.40
2	NH <sub>3</sub>	150 mg/Nm <sup>3</sup>	84.20	81.50	93.10	76.60	80.70

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## Stack Emission Monitoring Readings

Month : May'23  
Nature of Sampling : Stack Emission  
Sample collected & tested by : In- house Laboratory

### TEST RESULTS

Location :- Primary Reformer Stack

S.No	Parameters	Permissible limits	06.05.2023	13.05.2023	20.05.2023	27.05.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	0.8	1.0	1.0	0.8
3	NOx	400 mg/Nm <sup>3</sup>	80.0	76.0	84.0	82.0

Location :- Utility Boiler Stack

S.No	Parameters	Permissible limits	06.05.2023	13.05.2023	20.05.2023	27.05.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	1.0	1.2	1.0	0.8
3	NOx	400 mg/Nm <sup>3</sup>	56.0	58.0	54.0	55.0

Location :- HRSG Stack

S.No	Parameters	Permissible limits	06.05.2023	13.05.2023	20.05.2023	27.05.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	1.0	1.1	0.8	1.2
3	NOx	400 mg/Nm <sup>3</sup>	145.0	138.0	142.0	140.0

Location :- Prilling Tower

S.No	Parameters	Permissible limits	06.05.2023	13.05.2023	20.05.2023	27.05.2023
1	Particulate Matter	50 mg/Nm <sup>3</sup>	44.50	42.40	46.80	43.20
2	NH <sub>3</sub>	150 mg/Nm <sup>3</sup>	90.50	86.00	98.20	88.20

9/5/2023



## Stack Emission Monitoring Readings

Doc No: RFCL-TS-EMC-Report-05

Month : June'23  
Nature of Sampling : Stack Emission  
Sample collected and tested by : In- house Laboratory

### TEST RESULTS

Location :- Primary Reformer Stack

S.No	Parameters	Permissible limits	28.06.2023
1	SPM	10 mg/Nm3	<5.0
2	SOx	50 mg/Nm3	0.5
3	NOx	400 mg/Nm3	72.0

Location :- Utility Boiler Stack

S.No	Parameters	Permissible limits	24.06.2023
1	SPM	10 mg/Nm3	<5.0
2	SOx	50 mg/Nm3	0.7
3	NOx	400 mg/Nm3	56.0

Location :- HRSG Stack

S.No	Parameters	Permissible limits	28.06.2023
1	SPM	10 mg/Nm3	<5.0
2	SOx	50 mg/Nm3	1.0
3	NOx	400 mg/Nm3	147.0

Location :- Prilling Tower

S.No	Parameters	Permissible limits	28.06.2023
1	Particulate Matter	50 mg/Nm3	41.00
2	NH3	150 mg/Nm3	47.00

Note : Plant was under shutdown from 31.05.2023 to 22.06.2023.

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## Stack Emission Monitoring Readings

Month : July'23  
Nature of Sampling : Stack Emission  
Sample collected and tested by : In- house Laboratory

### TEST RESULTS

Location :-

Primary Reformer Stack

S.No	Parameters	Permissible limits	07.07.2023	13.07.2023	21.07.2023	28.07.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	1.0	1.2	0.8	1.0
3	NOx	400 mg/Nm <sup>3</sup>	42.0	38.0	46.0	49.0

Location :-

Utility Boiler Stack

S.No	Parameters	Permissible limits	07.07.2023	13.07.2023	21.07.2023	28.07.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	0.8	1.0	1.0	0.8
3	NOx	400 mg/Nm <sup>3</sup>	56.0	55.0	97.0	86.0

Location :-

HRSG Stack

S.No	Parameters	Permissible limits	07.07.2023	13.07.2023	21.07.2023	28.07.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	1.0	1.2	1.2	1.0
3	NOx	400 mg/Nm <sup>3</sup>	113.0	95.0	118.0	104.0

Location :-

Prilling Tower

S.No	Parameters	Permissible limits	07.07.2023	13.07.2023	20.07.2023	28.07.2023
1	Particulate Matter	50 mg/Nm <sup>3</sup>	44.00	46.50	40.80	42.60
2	NH <sub>3</sub>	150 mg/Nm <sup>3</sup>	62.00	48.00	58.00	117.00

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## Stack Emission Monitoring Readings

**Month** : August'23  
**Nature of Sampling** : Stack Emission  
**Sample collected and tested by** : In- house Laboratory

### TEST RESULTS

**Location :-**

Primary Reformer Stack

S.No	Parameters	Permissible limits	01.08.2023	09.08.2023	16.08.2023	23.08.2023	30.08.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	1.0	1.2	1.0	1.4	1.0
3	NOx	400 mg/Nm <sup>3</sup>	38.0	42.0	40.0	31.0	36.0

**Location :-**

Utility Boiler Stack

S.No	Parameters	Permissible limits	01.08.2023	09.08.2023	16.08.2023	23.08.2023	30.08.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	0.8	1.0	1.0	0.8	1.0
3	NOx	400 mg/Nm <sup>3</sup>	110.0	61.0	72.0	68.0	64.0

**Location :-**

HRSG Stack

S.No	Parameters	Permissible limits	01.08.2023	09.08.2023	16.08.2023	23.08.2023	30.08.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	1.0	1.4	1.2	1.0	1.4
3	NOx	400 mg/Nm <sup>3</sup>	118.0	125.0	120.0	128.0	131.0

**Location :-**

Prilling Tower

S.No	Parameters	Permissible limits	01.08.2023	09.08.2023	16.08.2023	23.08.2023	30.08.2023
1	Particulate Matter	50 mg/Nm <sup>3</sup>	44.00	48.00	38.00	40.50	36.00
2	NH <sub>3</sub>	150 mg/Nm <sup>3</sup>	88.00	105.00	65.00	74.00	60.00

CVR



## Stack Emmision Monitoring Readings

Month : September'23  
Nature of Sampling : Stack Emission  
Sample collected and tested by : In-house Laboratory

Doc No: RFCL-TS-EMC-Report-05

### TEST RESULTS

Location :-

Primary Reformer Stack

S.No	Parameters	Permissible limits	14.09.2023	21.09.2023	26.09.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	<1.0	<1.0	<1.0
3	NOx	400 mg/Nm <sup>3</sup>	40.0	36.0	38.0

Location :-

Utility Boiler Stack

S.No	Parameters	Permissible limits	14.09.2023	21.09.2023	26.09.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	<1.0	<1.0	<1.0
3	NOx	400 mg/Nm <sup>3</sup>	98.0	85.0	39.0

Location :-

HRSG Stack

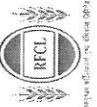
S.No	Parameters	Permissible limits	14.09.2023	21.09.2023	26.09.2023
1	SPM	10 mg/Nm <sup>3</sup>	<5.0	<5.0	<5.0
2	SOx	50 mg/Nm <sup>3</sup>	<1.0	<1.0	<1.0
3	NOx	400 mg/Nm <sup>3</sup>	129.0	108.0	90.0

Location :-

Prilling Tower

S.No	Parameters	Permissible limits	14.09.2023	21.09.2023	26.09.2023
1	Particulate Matter	50 mg/Nm <sup>3</sup>	36.0	40.0	42.0
2	NH <sub>3</sub>	150 mg/Nm <sup>3</sup>	78.0	86.0	90.0

60/1



Regd. Office: 10, Sector 10, Noida - 201301

## Sewage Treatment Plant Quality Monitoring Results

**Month** : September'23  
**Nature of Sampling** : STP Outlet Water  
**Sample collected and tested by**

Doc No: RFCL-TS-EMC-Report-06

### TEST RESULTS

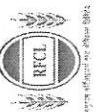
#### Plant STP

S.No.	Parameters	Unit	Limiting Standards	04.09.2023	21.09.2023
1	pH.		5.5-9.0	7.91	7.88
2	Total Suspended Solids (TSS)	mg/l	< 100	3.00	4.00
3	BOD (3 days at 27 °C)	mg/l	< 30	5.40	6.20
4	COD	mg/l	< 250	28.00	34.00
5	Oil & Grease	mg/l	< 10	< 10	< 10
6	Total Dissolved Solids (TDS)	mg/l	< 2100	700.00	725.00

#### Township STP

S.No.	Parameters	UOM	Limiting Standards	04.09.2023	11.09.2023	21.09.2023	26.09.2023	26.09.2023
1	pH.		5.5-9.0	8.01	8.09	8.06	7.91	
2	Total Suspended Solids (TSS)	mg/l	< 100	2.00	1.00	3.00	2.00	
3	BOD (3 days at 27 °C)	mg/l	< 30	1.80	2.00	2.50	2.00	
4	COD	mg/l	< 250	16.00	12.00	10.00	12.00	
5	Oil & Grease	mg/l	< 10	< 10	< 10	< 10	< 10	
6	Total Dissolved Solids (TDS)	mg/l	< 2100	512.00	544.00	473.00	504.00	

6/11



## Sewage Treatment Plant Quality Monitoring Results

Report No: RFCL-TS-EMC-Report-06

**Month** : August'23  
**Nature of Sampling** : STP Outlet Water  
**Sample collected and tested by** : In-House Laboratory

### TEST RESULTS

#### Plant STP

S.No.	Parameters	UOM	Limiting Standards	03.08.2023	18.08.2023
1	pH		5.5-9.0	7.91	7.86
2	Total Suspended Solids (TSS)	mg/l	<100	8.00	4.50
3	BOD (3 days at 27 °C)	mg/l	<30	6.40	5.80
4	COD	mg/l	<250	38.00	36.00
5	Oil & Grease	mg/l	<10	<10	<10
6	Total Dissolved Solids (TDS)	mg/l	<2100	715.00	688.00

#### Township STP

S.No.	Parameters	UOM	Limiting Standards	03.08.2023	10.08.2023	18.08.2023	28.08.2023
1	pH.		5.5-9.0	8.06	7.92	7.99	7.85
2	Total Suspended Solids (TSS)	mg/l	<100	2.00	2.10	1.80	3.00
3	BOD (3 days at 27 °C)	mg/l	<30	1.80	2.20	1.60	2.40
4	COD	mg/l	<250	12.00	14.00	10.00	16.00
5	Oil & Grease	mg/l	<10	<10	<10	<10	<10
6	Total Dissolved Solids (TDS)	mg/l	<2100	513.00	524.00	536.00	688.00

Q/N/C/



## Sewage Treatment Plant Quality Monitoring Results

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Doc No: RFCL-TS-EMC-Report-06

**Month** : July'23  
**Nature of Sampling** : STP Outlet Water  
**Sample collected and tested by** : In-House Laboratory

### TEST RESULTS

#### Plant STP

S.No.	Parameters	UOM	Limiting Standards	04.07.2023	18.07.2023
1	pH		5.5-9.0	7.94	7.85
2	Total Suspended Solids (TSS)	mg/l	<100	6.00	3.00
3	BOD (3 days at 27 °C)	mg/l	<30	6.00	5.50
4	COD	mg/l	<250	36.00	32.00
5	Oil & Grease	mg/l	<10	<10	<10
6	Total Dissolved Solids (TDS)	mg/l	<2100	755.00	720.00

#### Township STP

S.No.	Parameters	UOM	Limiting Standards	04.07.2023	11.07.2023	18.07.2023	25.07.2023
1	pH		5.5-9.0	7.87	7.89	7.85	8.05
2	Total Suspended Solids (TSS)	mg/l	<100	2.00	1.00	2.00	3.00
3	BOD (3 days at 27 °C)	mg/l	<30	1.40	1.90	3.20	1.80
4	COD	mg/l	<250	10.00	12.00	15.00	8.00
5	Oil & Grease	mg/l	<10	<10	<10	<10	<10
6	Total Dissolved Solids (TDS)	mg/l	<2100	630.00	566.00	525.00	514.00

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Regd. Office No. 1967

## Sewage Treatment Plant Quality Monitoring Results

Doc No: RFCL-TS-EMC-Report-06

**Month** : June'23  
**Nature of Sampling** : STP Outlet Water  
**Sample collected and tested by** : In-House Laboratory

### TEST RESULTS

#### Plant STP

S.No.	Parameters	UOM	Limiting Standards	05.06.2023	19.06.2023
1	pH		5.5-9.0	8.05	7.73
2	Total Suspended Solids (TSS)	mg/l	<100	8.60	9.50
3	BOD (3 days at 27 °C)	mg/l	<30	11.80	13.20
4	COD	mg/l	<250	41.60	46.20
5	Oil & Grease	mg/l	<10	<10	<10
6	Total Dissolved Solids (TDS)	mg/l	<2100	788.00	769.00

#### Township STP

S.No.	Parameters	UOM	Limiting Standards	05.06.2023	13.06.2023	19.06.2023	26.06.2023
1	pH		5.5-9.0	8.15	7.76	7.73	8.18
2	Total Suspended Solids (TSS)	mg/l	<100	7.30	4.00	7.00	5.30
3	BOD (3 days at 27 °C)	mg/l	<30	12.00	13.50	10.60	12.20
4	COD	mg/l	<250	43.20	48.80	44.50	49.50
5	Oil & Grease	mg/l	<10	<10	<10	<10	<10
6	Total Dissolved Solids (TDS)	mg/l	<2100	648.00	642.00	600.00	664.00

QWV



Regd. Office No. 2000/202

## Sewage Treatment Plant Quality Monitoring Results

Month : May'23  
Nature of Sampling : STP Outlet Water  
Sample collected and tested by : In-House Laboratory

### TEST RESULTS

#### Plant STP

S.No.	Parameters	UOM	Limiting Standards	08.05.2023	22.05.2023
1	pH		5.5-9.0	8.05	8.20
2	Total Suspended Solids (TSS)	mg/l	<100	8.00	6.00
3	BOD (3 days at 27 °C)	mg/l	<30	12.00	11.60
4	COD	mg/l	<250	52.00	50.00
5	Oil & Grease	mg/l	<10	<10	<10
6	Total Dissolved Solids (TDS)	mg/l	<2100	805.00	780.00

#### Township STP

S.No.	Parameters	UOM	Limiting Standards	01.05.2023	08.05.2023	15.05.2023	22.05.2023	29.05.2023
1	pH		5.5-9.0	7.92	7.78	8.10	8.06	7.84
2	Total Suspended Solids (TSS)	mg/l	<100	5.00	2.00	4.00	2.00	2.00
3	BOD (3 days at 27 °C)	mg/l	<30	2.50	1.50	2.80	3.90	4.00
4	COD	mg/l	<250	12.00	10.00	13.00	15.00	15.00
5	Oil & Grease	mg/l	<10	<10	<10	<10	<10	<10
6	Total Dissolved Solids (TDS)	mg/l	<2100	540.00	556.00	454.00	404.00	548.00

*Sanjay*



## Sewage Treatment Plant Quality Monitoring Results

Report of Sewage Treatment Plant

**Month** : April'23  
**Nature of Sampling** : STP Outlet Water  
**Sample collected and tested by** : In-House Laboratory

### TEST RESULTS

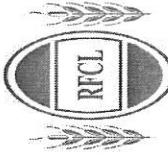
#### Plant STP

S.No.	Parameters	UOM	Limiting Standards	04.04.2023	17.04.2023
1	pH		5.5-9.0	7.85	8.10
2	Total Suspended Solids (TSS)	mg/l	<100	12.00	10.00
3	BOD (3 days at 27 °C)	mg/l	<30	16.50	14.60
4	COD	mg/l	<250	88.00	82.00
5	Oil & Grease	mg/l	<10	<10	<10
6	Total Dissolved Solids (TDS)	mg/l	<2100	880.00	855.00

#### Township STP

S.No.	Parameters	UOM	Limiting Standards	08.04.2023	17.04.2023
1	pH		5.5-9.0	7.90	7.98
2	Total Suspended Solids (TSS)	mg/l	<100	14.00	12.00
3	BOD (3 days at 27 °C)	mg/l	<30	15.00	14.60
4	COD	mg/l	<250	74.00	70.00
5	Oil & Grease	mg/l	<10	<10	<10
6	Total Dissolved Solids (TDS)	mg/l	<2100	928.00	916.00

QWV/



## Ammonia in atmosphere at different locations in plant area

Doc No: RTCL-TS-EMC-Report-07

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**Month**

: September'23

**Nature of Sampling**

: Ammonia Concentration

**Sample collected and tested by**

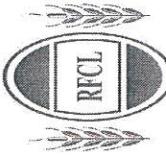
: In-House Laboratory

**Date of Sample collection**

: 07.09.2023, 14.09.2023, 21.09.2023, & 28.09.2023

### TEST RESULTS

S.No.	Location of sample collection	07.09.2023		14.09.2023		21.09.2023		28.09.2023	
		Ammonia Concentration in ppm							
1	Near Ammonia Converter -1	<1		1.0		<1		<1	
2	Near Ammonia Converter -2	<1		<1		<1		1.0	
3	Near product hydrogen sample point (CHRU)	<1		<1		<1		<1	
4	Near Ammonia Chillers	<1		2.0		1.0		2.0	
5	Near Ammonia Separator	<1		<1		<1		<1	
6	Near Ammonia Accumulator	<1		<1		<1		<1	
7	Near C 551 sample point (Purge gas recovery unit )	<1		<1		2.0		1.0	
8	Near Ammonia recovery pump reflux	<1		<1		<1		<1	
9	Near 551B HP circulation pump	<1		<1		<1		<1	
10	Near 503 flash vessel	<1		4.0		5.0		4.0	
11	Near Ammonia Filter	<1		<1		<1		<1	
12	Near P1 pump	<1		<1		<1		<1	
13	Near P2 pump	<1		<1		<1		<1	
14	Near P5 pump	<1		<1		<1		<1	
15	Near P9 pump	<1		<1		<1		<1	
16	Near battery limits (Ammonia storage section)	<1		<1		1.0		<1	
17	Near Ammonia pump	<1		<1		<1		<1	
18	Near Ammonia transfer pump	<1		<1		<1		<1	



## Ammonia in atmosphere at different locations in plant area

Doc No: RFCL-TS-EMC-Report-07

### Month

: August'23

### Nature of Sampling

: Ammonia Concentration

### Sample collected and tested by

: In-House Laboratory

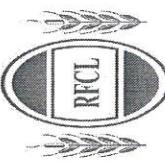
### Date of Sample collection

: 01.08.2023, 08.08.2023, 15.08.2023, 23.08.2023 & 30.08.2023

### TEST RESULTS

S.No.	Sample collection date	01.08.2023	08.08.2023	15.08.2023	23.08.2023	30.08.2023
	Location of sample collection	Ammonia Concentration in ppm				
1	Near Ammonia Converter -1	1.0	2.5	2.0	2.5	2.0
2	Near Ammonia Converter -2	1.0	2.0	2.0	2.0	2.0
3	Near product hydrogen sample point (CHRU)	<1	<1	<1	<1	<1
4	Near Ammonia Chillers	<1	<1	2.0	2.0	<1
5	Near Ammonia Separator	<1	<1	<1	<1	<1
6	Near Ammonia Accumulator	<1	<1	<1	<1	<1
7	Near C 551 sample point ( Purge gas recovery unit )	1.0	2.0	2.0	<1	1.0
8	Near Ammonia recovery pump reflux	<1	<1	<1	<1	<1
9	Near 551B HP circulation pump	<1	<1	<1	<1	<1
10	Near 503 flash vessel	4.0	5.0	3.0	5.0	4.0
11	Near Ammonia Filter	<1	<1	<1	<1	1.0
12	Near P1 pump	<1	<1	<1	<1	<1
13	Near P2 pump	<1	<1	<1	<1	<1
14	Near P5 pump	<1	<1	<1	<1	<1
15	Near P9 pump	<1	<1	<1	<1	<1
16	Near battery limits (Ammonia storage section)	<1	<1	<1	<1	<1
17	Near Ammonia pump	<1	<1	<1	<1	<1
18	Near Ammonia transfer pump	<1	<1	<1	<1	<1

*Queswah*



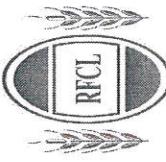
## Ammonia in atmosphere at different locations in plant area

Doc No: RFCL-TS-EMC-Report-07

<b>Month</b>	: July'23
<b>Nature of Sampling</b>	: Ammonia Concentration
<b>Sample collected and tested by</b>	: In-House Laboratory
<b>Date of Sample collection</b>	: 04.07.2023, 11.07.2023, 18.07.2023 & 25.07.2023

### TEST RESULTS

S.No.	Sample collection date	04.07.2023	11.07.2023	18.07.2023	25.07.2023
	Location of sample collection	Ammonia Concentration in ppm			
1	Near Ammonia Converter -1	<1	<1	<1	<1
2	Near Ammonia Converter -2	<1	<1	<1	<1
3	Near product hydrogen sample point (CHRU)	<1	<1	<1	<1
4	Near Ammonia Chillers	<1	<1	<1	2.5
5	Near Ammonia Separator	<1	<1	<1	<1
6	Near Ammonia Accumulator	<1	<1	<1	<1
7	Near C 551 sample point (Purge gas recovery unit)	2.5	1.0	2.0	4.0
8	Near Ammonia recovery pump reflux	<1	<1	<1	<1
9	Near 551B HP circulation pump	<1	<1	<1	<1
10	Near 503 flash vessel	3.0	5.0	2.5	5.0
11	Near Ammonia Filter	<1	2.0	<1	2.0
12	Near P1 pump	<1	<1	<1	<1
13	Near P2 pump	<1	<1	<1	<1
14	Near P5 pump	<1	<1	<1	<1
15	Near P9 pump	<1	<1	<1	<1
16	Near battery limits (Ammonia storage section)	1.0	<1	<1	<1
17	Near Ammonia pump	<1	<1	<1	<1
18	Near Ammonia transfer pump	<1	<1	2.0	<1



## Ammonia in atmosphere at different locations in plant area

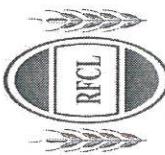
Doc No: RFCL-TS-EMC-Report-07

Month	: June'23
Nature of Sampling	: Ammonia Concentration
Sample collected and tested by	: In-House Laboratory
Date of Sample collection	: 06.06.2023, 13.06.2023, 20.06.2023 & 27.06.2023

### TEST RESULTS

S.No.	Sample collection date	06.06.2023	13.06.2023	20.06.2023	27.06.2023
	Location of sample collection	Ammonia Concentration in ppm			
1	Near Ammonia Converter -1	<1	<1	<1	<1
2	Near Ammonia Converter -2	<1	<1	<1	<1
3	Near product hydrogen sample point (CHRU)	<1	<1	<1	<1
4	Near Ammonia Chillers	<1	<1	<1	2.5
5	Near Ammonia Separator	<1	<1	<1	<1
6	Near Ammonia Accumulator	<1	<1	<1	2.0
7	Near C 551 sample point ( Purge gas recovery unit )	<1	<1	<1	2.0
8	Near Ammonia recovery pump reflux	<1	<1	<1	<1
9	Near 551B HP circulation pump	<1	<1	<1	1.5
10	Near 503 flash vessel	1.0	<1	<1	2.0
11	Near Ammonia Filter	<1	<1	<1	2.5
12	Near P1 pump	<1	<1	<1	<1
13	Near P2 pump	<1	<1	<1	<1
14	Near P5 pump	<1	<1	<1	<1
15	Near P9 pump	<1	<1	<1	<1
16	Near battery limits (Ammonia storage section)	<1	<1	<1	<1
17	Near Ammonia pump	2.0	1.0	<1	2.0
18	Near Ammonia transfer pump	<1	<1	<1	<1

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## Ammonia in atmosphere at different locations in plant area

Doc No: RFCL-TS-EMC-Report-07

**Month** : May'23

**Nature of Sampling**

: Ammonia Concentration

**Sample collected and tested by**

: In-House Laboratory

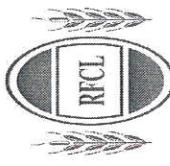
**Date of Sample collection**

: 02.05.2023, 09.05.2023, 16.05.2023, 24.05.2023 & 30.05.2023

### TEST RESULTS

S.No.	Sample collection date	02.05.2023	09.05.2023	16.05.2023	24.05.2023	30.05.2023
	Location of sample collection	Ammonia Concentration in ppm				
1	Near Ammonia Converter -1	<1	<1	<1	<1	<1
2	Near Ammonia Converter -2	<1	<1	<1	<1	<1
3	Near product hydrogen sample point (CHRU)	<1	<1	<1	<1	<1
4	Near Ammonia Chillers	1.0	2.5	2.5	2.5	1.0
5	Near Ammonia Separator	<1	<1	<1	<1	<1
6	Near Ammonia Accumulator	2.5	<1	<1	2.5	<1
7	Near C 551 sample point ( Purge gas recovery unit )	2.5	2.5	2.5	5.0	2.5
8	Near Ammonia recovery pump reflux	<1	<1	<1	<1	<1
9	Near 551B HP circulation pump	<1	<1	<1	2.5	2.5
10	Near 503 flash vessel	5.0	2.5	<1	5.0	5.0
11	Near Ammonia Filter	<1	<1	1.0	2.5	1.0
12	Near P1 pump	<1	<1	<1	<1	<1
13	Near P2 pump	<1	<1	<1	<1	<1
14	Near P5 pump	<1	<1	<1	<1	<1
15	Near P9 pump	<1	<1	<1	<1	<1
16	Near battery limits (Ammonia storage section)	1.0	<1	<1	<1	<1
17	Near Ammonia pump	2.5	<1	1.0	2.5	1.0
18	Near Ammonia tranfer pump	<1	<1	<1	<1	<1

Signature:



## Ammonia in atmosphere at different locations in plant area

Doc No: RFCL-TS-EMC-Report-07

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**Month** : April'23

**Nature of Sampling** : Ammonia Concentration

**Sample collected and tested by** : In-House Laboratory

**Date of Sample collection** : 04.04.2023, 11.04.2023, 18.04.2023 & 25.04.2023

### TEST RESULTS

S.No.	Sample collection date	04.04.2023	11.04.2023	18.04.2023	25.04.2023
S.No.	Location of sample collection	Ammonia Concentration in ppm			
1	Near Ammonia Converter -1	<1	<1	<1	<1
2	Near Ammonia Converter -2	<1	<1	<1	<1
3	Near product hydrogen sample point (CHRU)	<1	<1	<1	<1
4	Near Ammonia Chillers	1.5	<1	<1	1.5
5	Near Ammonia Separator	<1	<1	<1	<1
6	Near Ammonia Accumulator	<1	<1	<1	2
7	Near C 551 sample point (Purge gas recovery unit )	4.0	1.5	<1	2.0
8	Near Ammonia recovery pump reflux	<1	<1	<1	<1
9	Near 551B HP circulation pump	<1	<1	<1	<1
10	Near 503 flash vessel	5.0	3.0	4.0	5.0
11	Near Ammonia Filter	<1	<1	1.0	2.5
12	Near P1 pump	<1	<1	<1	<1
13	Near P2 pump	<1	<1	<1	<1
14	Near P5 pump	<1	<1	<1	<1
15	Near P9 pump	<1	<1	<1	<1
16	Near battery limits (Ammonia storage section)	1.0	<1	<1	1.5
17	Near Ammonia pump	<1	<1	<1	<1
18	Near Ammonia transfer pump	<1	<1	<1	<1

05/05/2023  
D.S.