



Chennai Metro Rail Limited

(A Joint Venture of Govt. of India and Govt. of Tamil Nadu)

(ISO 9001:2015 and ISO 14001:2015 Certified)

Letter No. CMRL/CON/ES/1013/2024

Dated: 25.09.2024

To,

The District Environmental Engineer,
Tamil Nadu Pollution Control Board,
Second Floor, 950/1, Poonamalle High Road,
Arumbakkam,
Chennai - 600 106.

Dear Sir,

Sub: Submission of Annual Environmental statement (Form V) for the financial year ending 31st March 2024 for the CMRL Metro Head Quarters and other Metro Rail Amenities (MetroS) located at Nandanam consist of S. F. Nos. 3871/1(pt), 3871/3(pt) Block No.76, Mylapore Village, Mylapore Taluk, Chennai District, Tamil Nadu - Reg.

Ref: 1. Environmental Clearance Letter No. SEIAA/TN/F.No.6675/EC/8(a)/664/2019 dated: 18.10.2019.

2. Consent Order (CTO under Water Act) No: 2304248023588 dated 05.09.2024.

With reference to the Part A of Specific Conditions, Condition no. (7) stipulated in the Environmental Clearance and the General Conditions, Condition no. (16) stipulated in the Consent Order cited above we are submitting herewith the Annual Environmental Statement (Form V) for the Financial Year ending 31st March 2024 along with necessary supporting documents for your kind information and perusal.

We wish to mention that all the necessary actions are being taken in compliance to the specific and general conditions of Environmental Clearance granted to the project.

We trust that the information furnished is in line with your requirements.

Thanking You.

Yours Sincerely,
For Chennai Metro Rail Limited,

**Saravana Kumar R,
Manager - Environment.**

Enclosure: As stated above



METROS, Anna Salai, Nandanam, Chennai - 600 035.

Phone: 044-2437 8000 / Email: chennaimetrorail@cmrl.in / Website: www.chennaimetrorail.org

CIN : U60100TN2007SGC065596

FORM V

(See rule 14 of Environment (Protection) Rules, 1986)

Environmental statement for the financial year ending the 31st of March 2024.

PART - A

- (i) Name and Address of the owner/occupier of the industry operation or process –
M/s Chennai Metro Rail Limited, Mylapore Village, Mylapore Taluk, Chennai District.
- (ii) Industry category Primary – (STC Code) Secondary – (SIC Code) – **Red Category**
- (iii) Production capacity – Units - **Nil**
- (iv) Year of Establishment - **2022**
- (v) Date of last environmental statement submitted – This is the First annual statement (2023 – 2024)

PART - B

Water and Raw Material Consumption

- (i) Water consumption m³/day – Total Consumption 34.3 m³/day.
- Process - Nil
- Cooling - Nil
- Domestic - **34.3 m³/day.**

Name of Products	Process water consumption per unit of product output	
	During the previous financial year (2022 – 2023)	During the current financial year (2023 – 2024)
	(1)	(2)
(1) This is an office building; hence no product is manufactured	Not Applicable	Not Applicable

(ii) **Raw material consumption**

*Name of raw materials	Name of Products	Consumption of raw material per unit of output	
		During the previous financial year (2022 – 2023)	During the current financial year (2023 – 2024)
This is an office building, and no products are manufactured here.	Not Applicable	Not Applicable	Not Applicable

* Industry may use codes if disclosing details of raw material would violate contractual obligations otherwise all industries have to name the raw materials used.



PART - C

Pollution discharged to environment/unit of output.

(Parameter as specified in the consent issued)

(1) Pollutants	Quality of Pollutants discharged (mass/day)	Concentrations of pollutants discharges (Mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	No pollutants are discharged into the environment as entire sewage is treated and recycled.	STP treated effluent report Attached (Annexure 1)	Not Applicable
(b) Air	Emissions from the DG sets	DG Stack Monitoring Report attached (Annexure 2)	DG Stack Monitoring Report attached (Annexure 2)

PART - D

Hazardous Wastes

(As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year (2022 -2023)	During the current financial year (2023 – 2024)
(a) From Process (Used Oil from DG sets)	Nil	236 Liters
(b) From pollution control facilities	Not Applicable	Not Applicable

PART - E

Solid Wastes	Total Quantity (191.1Kg/day)	
	During the previous financial year (2022 -2023)	During the current financial year (2023 – 2024)
(a) From process	Not Applicable	Not Applicable
(b) From pollution control facilities (Dried STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit (2) Sold (3) Disposed	(1) Nil (2) Nil (3) Nil	(1) 109.9 Kg/day food waste & Garden waste treated in Organic Waste Converter. (2) Nil (3) 81.2 Kg/day solid waste disposed to GCC



PART – F

Please specify the characteristics (in terms of consumption of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Characteristics of hazardous waste & solid waste:

The used oil, oil filter etc., from the DG's have been identified as hazardous wastes.

Solid Waste:

1. Solid wastes are segregated into biodegradable wastes (waste vegetables, foods etc.) were treated in Organic Waste Converter (OWC) and used as manure for Green Belt Development.
2. Non –biodegradable wastes and collected in separate bins and handed over to Greater Chennai Corporation.
3. Dried Sludge of STP were used as a manure for the Green Belt Development.

Used Oil:

The used lubricant oil generated during maintenance of DG sets will be collected in drums and stored at a designated place within the premises. The same is sold to recyclers authorized by CPCB and TNPCB.

PART – G

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

As it is an Office building therefore no product is manufactured, however measures taken to conserve water like fixtures for showers, low flow type flushing system in the toilets and recycling of STP treated effluent in flushing and gardening. Rainwater harvesting is also being done to recharge the ground water.

PART – H

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

1. Energy efficient lighting systems were installed in the building to conserve electricity.
2. Solar panels were installed in the parking lots

PART – I

Any other particulars for improving the quality of the environment.

1. Adequate stack height for DG sets is provided as per norms to reduce air pollution,
2. Back up DG sets comply with the applicable emission norms.
3. Back up DG sets are used only during power failure
4. Monitoring of stack emissions from DG sets is carried out as per norms.



5. DG sets are installed in the basement to minimize the impact of ambient noise.
6. DG sets is provided with acoustic lining/ treatment for control of noise as per norms.
7. Adequate exhaust mufflers are provided as per norms to limit the noise.
1. Adequate tree plantation has been carried out for improvement of aesthetics and climate.
2. Rainwater harvesting pits & recharge bore wells are provided for recharge of groundwater.
3. Solid waste is segregated and disposed of to Greater Chennai Corporation (GCC).



Annexure 1

STP Water Analysis Report



Eau Chemical (Mfg) Pvt. Ltd.

Laboratory Service Division
Eauchem Towers, Plot No. 90-A, Ambal Nagar Main Road,
Keelkattalai, Chennai - 600 117, Tamil Nadu, India.
Phone : +91- 044 - 2247 9809 / 2247 0206
E-Mail : lab@eauchem.com / hr@eauchem.com
Website : www.eauchem.com
CIN: U24111TN2000PTCO45657



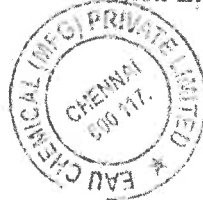
TEST REPORT

SAMPLE CODE NO.	: EWW2311-1964	REPORT DATE	: 07.12.2023
REPORT NO.	: ECAR2311-1964	SAMPLE DRAWN BY	: Customer
ULR NO.	: TC-573023000001055F		
COMPANY NAME & ADDRESS	: CHENNAI METRO RAIL LTD Nandanam Head Office, No.327, Anna Salai, Nandanam, Chennai - 600035		
SAMPLE MARK	: STP Final After UF		
QUANTITY OF SAMPLE REC'D	: 1*1 Liter		
SAMPLING METHOD	: NA		
SAMPLE COLLECTED ON	: NA		
SAMPLE RECEIVED ON	: 29.11.2023		
TEST COMMENCED ON	: 29.11.2023		
TEST COMPLETED ON	: 06.12.2023		

S. No	Parameters	Test Method	Result	Limits as per TNPCB	Unit
1.	pH @ 25°C	APHA 23 rd Edition 2017, 4500 11+ B	8.15	5.5-9.0	---
2.	Total Dissolved Solids	APHA 23 rd Edition 2017, 2540 C	1245	---	mg/L
3.	Total Suspended Solids	APHA 23 rd Edition 2017, 2540 D	8.8	20	mg/L
4.	Total Hardness as CaCO ₃	APHA 23 rd Edition 2017, 2340 C	194	---	mg/L
5.	Phenolphthalein Alkalinity	APHA 23 rd Edition 2017, 2320 B	4.68	---	mg/L
6.	Total Alkalinity as CaCO ₃	APHA 23 rd Edition 2017, 2320 B	131	---	mg/L
7.	Chemical Oxygen Demand	APHA 23 rd Edition 2017, 5220 B	15.6	50	mg/L
8.	Biochemical Oxygen Demand 5days @ 20°C	APHA 23 rd Edition 2017, 5210 B	4.8	10	mg/L
9.	Oil & Grease	APHA 23 rd Edition 2017, 5520 B	BDL[DL:1.0]	10	mg/L
10.	Ammonia Nitrogen as NH ₃ -N	APHA 23 rd Edition 2017, 4500 NH ₃ C	BDL[DL:0.5]	50	mg/L

Note: NA:-Not Applicable; BDL:-Below Detection Limit; DL:-Detection Limit

Verified by: *M. Ishwarya*



For Eau Chemical (Mfg) Pvt. Ltd

N. Priyanka
Authorized signatory
N. Priyanka -Tech. Manager

NOTE:

1. The test results relate only to the items tested.
2. The test report shall not be reproduced anywhere except in full and in the same format without the permission of the laboratory.
3. Unless informed by customer, the test items will not be retained for more than 7 days from the date of issue of the test report.

End of Report

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Annexure 2

DG Stack Monitoring Report



CVR Labs (P) Limited

CIN NO: U 74140TN1999PTC043582

Dignity Centre, II Floor, No. 2/9, Abdul Razack Street,
Saidapet, Chennai - 600 015. ☎+91 44 2433 0382 to 85
☎9444709669 ☎info@cvrlabs.com ☎www.cvrlabs.com

TEST REPORT

Page 1 of 2

Report No: 23080152.01

Discipline : Chemical

ULR-TC761823000003718F

Report Date: 23/08/2023

Group: Atmospheric Pollution

CUSTOMER DETAILS

Customer Name & Address:

M/s. Chennai Metro Rail Limited.,

Metros Nandanam, Anna Salai, Chennai - 600035.

Customer Reference: NA

SAMPLE DETAILS

Sample Code	: 23080152.01	Sampled On	: 21/08/2023
Sample Name	: DG Stack Emission	Sample Received On	: 21/08/2023
Sample Description	: DG Stack Emission	Sampling Location	: Sudhir 1010 KVA
Sample Condition	: Good	Sampling Procedure	: IS 11255
Sample Quantity	: NA	Equipment Used	: CVR/CH/017
Sampled Collected By	: CVR Labs	Test Started On	: 22/08/2023
Customer Code	: NA	Test Completed On	: 23/08/2023

SL.NO	TEST PARAMETER(S)	TEST METHOD	UNIT	RESULTS	SPECIFICATION AS PER CPCB
1	Stack Temperature	CVR/SOP/ENVI/100	K	533	-
2	Velocity of the Flue Gas	EPA Method1-3	m/sec	19.52	-
3	Flue Gas Discharge	IS 11255 (Part-3)	Nm ³ /hr	4930.81	-
4	Sulphur Dioxide(SO ₂)	IS 11255 (Part-2)	mg/Nm ³	29.25	-
5	Oxides of Nitrogen (NO _x) (at 15% O ₂) dry basis	IS 11255 (Part-7)	ppmv	126.13	710
6	Carbon monoxide(CO) (at 15%O ₂)	IS 13270	mg/Nm ³	37.29	150
7	Carbon Dioxide(CO ₂)	IS 13270	%	6.1	-
8	Oxygen(O ₂)	IS 13270	%	10.5	-
9	Particulate Matter (PM)(at 15%O ₂) (diesel fuels-HSD&LDO)	IS 11255 (Part-1)	mg/Nm ³	5.60	75

T. P. CT. Per (Name) 23/08/2023
Verified By

.....cont.....

For CVR LABS (P) LIMITED

C. BALAMURUGAN
Authorised Signatory

Laboratory - Accredited By: NABL (TC-7618); Recognized By: BIS, FSSAI, MoEF; Certified By: ISO 9001:2015 & ISO 45001:2018

Unless otherwise stated the results shown in this report refer only to the sample(s) tested. The report shall not be reproduced except in full without our written approval. Any complaints about this report should be communicated within 7 days. Separate report will be issued for non-accredited parameter(s). Asterisk mark or any other symbol will not be used in the report. The tested sample(s) are retained 7 days (in case of perishable items) and 30 days for all other samples. The sample from regulatory bodies are to be retained as specified.



CVR Labs (P) Limited

CIN NO: U 74140TN1999PTC043582

Dignity Centre, II Floor, No. 2/9, Abdul Razack Street,
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TEST REPORT

Page 2 of 2

Report No: 23080152.01

Discipline : Chemical

Report Date: 23/08/2023

Group: Atmospheric Pollution

CUSTOMER DETAILS

Customer Name & Address: **M/s. Chennai Metro Rail Limited.,**
Metros Nandanam, Anna Salai, Chennai – 600035.

Customer Reference: NA

SAMPLE DETAILS

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Sample Name	: DG Stack Emission	Sample Received On	: 21/08/2023
Sample Description	: DG Stack Emission	Sampling Location	: Sudhir 1010 KVA
Sample Condition	: Good	Sampling Procedure	: IS 11255
Sample Quantity	: NA	Equipment Used	: CVR/CH/017
Sampled Collected By	: CVR Labs	Test Started On	: 22/08/2023
Customer Code	: NA	Test Completed On	: 23/08/2023

SL.NO	TEST PARAMETER(S)	TEST METHOD	UNIT	RESULTS
1	Moisture Content	EPA Method 1-3	%	1.39

For CVR LABS (P) LIMITED

C. BALAMURUGAN
Authorised Signatory

T.P. (CT. Per. Time) 23/08/2023
Verified By

***** END OF REPORT *****

Laboratory - Accredited By: NABL (TC-7618); Recognized By: BIS, FSSAI, MoEF; Certified By: ISO 9001:2015 & ISO 45001:2018

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