BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH , NEW DELHI

M.A.No. 118/2023

In

O.A. 132/2023

GAURAB BANSAL ...APPLICANT

VERSUS

GOVT. OF NCT OF DELHI & OTHERS ...RESPONDENTS

INDEX

Through

Gigi.C.George,Advocate

Standing Counsel(UOI)

Ch No. 457, Lawyers Block-1

Delhi High Court, New Delhi

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Mob-9810625315

Place : New Delhi

Dated : 02.02.2024

(1)

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH, NEWDELHI

M.A.NO.118/2023

IN

O.A.NO.132/2023

GAURAV BANSAL----------APPLICANT

VERSUS

GOVT. OF NCT OF DELHI & OTHRS. ----------RESPONDENTS

FUTHER REPORT ON BEHALF OF RAILWAYS

1. That the present matter was listed on 04.12.23 and while considering the report filed by the Railways the Hon'ble Tribunal issued notice to other Respondents and directed the Railways to file further report.

2. In compliance of the order dt.04.12.23, Railway is filing the present report.

3. That the source of Effluent is from the waste water generated from washing of locomotives and surfaces and from damaged parts of the locomotives which occurs occasionally. This effluent is received at ETP from the shed washing point and all of the maintenance pits through well connected underground pipe lines.

(2)

4. That the total amount of effluent received at ETP is approximately 15-20 KL on daily basis. While processing the effluent at ETP, approximately 20-25 litres of "separated oil" is trapped and also approximately 0.5 to 1 kg of "sludge" is collected on daily basis in the whole treatment. Collected sludge is handed over at regular interval for further disposal to DPCC authorized party i.e. M/s Re Sustainability IWM Solution Ltd. Sector-5, DSIIDC Industrial Area, Bawana, Delhi-110039 through an agreement in place. Further, a part of treated water is used for the gardening.

A. Water Quality analysis of end point of discharge from the shed

5. That the Shed is monitoring treated water for PH and TDS on daily basis through well qualified in-house laboratory (Chemical & Metallurgical Assistants and Chemical & Metallurgical Superintendents). The parameters had been within prescribed limits. Moreover, a complete characteristic profile of treated water gets tested from outside NABL accredited lab in every 3 months. Test reports dated 24.10.2023, 25.07.2023, 05.04.2023 & 09.01.2023 are collectively annexed as **Annexure-1**(Colly). Sample due in Jan 2024 has been collected by the Spectra Analytic Lab, a NABL accredited lab, which is annexed as **Annexure-2** and Lab report is expected soon.

B. The effluent treatment facilities which are available for the treatment of such an oily discharge

6. That the effluent is treated in the ETP installed of capacity 60 KLD (Kilo Litres per Day) and the components of ETP include oiling grease trap, equalization tank, dosing tank (lime and polyelectrolyte is added), aeration tank and sand filter. Shed has

(3)

out-sourced for "operation of ETP and disposing off the sludge".

C. Action Taken in last 8 weeks

7. That a bypass was installed in one of the manholes through which a part of the un-treated effluent containing oil and grease used to be discharged directly to the drain. Now the same has been closed. The point was also inspected jointly with DPCC officials.

8. That the Inspection was carried out by DPCC officials on 20.12.2023, report is annexed as **Annexure-3**. Report concluded that:

   i. No oil & grease was seen being discharged into the drain from electric locomotive shed. In fact, there is no outfall from the shed into the nearby drain.

   ii. No oil and grease were seen discharged directly into the drain from diesel locomotive shed also. The bypass existing before, as per information gathered, has now been closed.

   iii. The diesel locomotive shed needs to modify its ETP for proper treatment of the waste water. The facility also needs to install STP for treating the sewage before discharging it into the drain.

D. Shed has planned to take further action as per DPCC directions:

9. Process for modification of ETP (Effluent Treatment Plant) has been initiated. Every effort would be done for completion of the same by 31.08.2024.

10. Specifications are under preparation for installing STP (Sewage Treatment Plant) for treating the sewage before discharging into the drain. This being a new construction will require considerable resources. Same would also be expected to get it completed by 31.12.2024.

11. That the Railways is taking every possible steps for complying with the various directions passed by the Hon'ble Supreme Court and Hon'ble National Green Tribunal.

12. That the Railways will file any further report as and when directed by this Hon'ble Tribunal.

31/01/2024

(ABHINANDAN AGARWAL)
Divisional Mechanical Engineer
Northern Railway,
Diesel Shed, Tughlakabad,
New Delhi-110011
Fax number 011-26360671
Mobile Number 9717631433

FOR RAILWAYS

THROUGH

GIGI.C.GEORGE
ADVOCATE
STANDING COUNSEL(UOI)
CH.NO.457, LAWYERS BLOCK-1
DELHI HIGH COURT, NEW DELHI

Place : New Delhi
Dated : 2/02/2024

Annexure - I

(5)

SPECTRA ANALYTIC LABS

The Result You Can Trust

(An ISO 9001:2015, 14001:2015 OHSAS 45001:2018 Certified & NABL Accredited Laboratory)
Plot No-343/14, Krishna Colony, Sehatpur, Faridabad, Haryana-121003
E-mail : care.spectra@gmail.com | Website : www.Spectraanalyticlabs.com | Ph : 9310207829, 9560653541, 9891225809

TEST REPORT

Name & Address of Customer		Test Report Number	WW/1023/28108
Issued to, M/S NORTHERN RAILWAY DIESEL LOCOMOTIVE SHED TUGHLAKABAD NEW DELHI-110044		Date of Report	28.10.2023
		Job Order Number	SAL/WW1023/25104
		Sample Description	One Sample of Waste Water
		Date of Sampling	24.10.2023
		Sampling Done by	SAL Lab Representative
		Sample Location	ETP Treated Water
		Type of Sampling	Grab Sampling
		Sampling Protocol	IS: 3025 (Part-01)
Sample Received on	24.10.2023	Sample Quantity	2 Ltr
Analysis Start Date	24.10.2023	Sample Packing	Plastic Bottle
Analysis End Date	28.10.2023	Sample Marking	ETP Outlet

TEST RESULTS

WASTE WATER SAMPLE ANALYSIS

S. No.	Parameters	Units	Results	Limits as per CPCB for discharge in Inland Surface Water	Test Method
1	pH Value at 25°C	-	7.74	5.5 to 9.0	IS: 3025 (Part-11) 1983 RA 2017
2	Total Suspended Solids	mg/l	8.2	100 max	IS: 3025 (Part-17) 1984 RA 2017
3	Total Dissolved Solids	mg/l	704.0	-	IS: 3025 (Part-16) 1984 RA 2017
4	Chemical Oxygen Demand	mg/l	89.0	250 max	IS: 3025 (Part-58) 2006 RA 2017
5	Bio Chemical Oxygen Demand (at 27°C for 3 days)	mg/l	7.7	30 max	IS: 3025 (Part-44) 1993 RA 2019
6	Oil & Grease	mg/l	2.1	10 max	IS: 3025 (Part-39) 1991 RA 2019
7	Detergent	mg/l	<2.0	-	IS: 3025 (Part-32)

End of Report

Analyst

AUTHORISED SIGNATORY

6

SPECTRA ANALYTIC LABS

[illegible]
Plot No. 343/14, Krishna Colony, Sehatpur, Faridabad, Haryana-121003
E-mail: care.spectra@gmail.com | Website: www.Spectraanalyticlabs.com | Ph: 9310207821, 9540451541, [illegible]

TEST REPORT

[illegible]
Issued to
M/s NORTHERN RAILWAY
DIESEL LOCOMOTIVE SHED
TUGHLAKABAD NEW DELHI-110044

Test Report Number	[illegible]
Date of Report	[illegible]
Job Order Number	SAL/[illegible]
Sample Description	One Sample [illegible]
Date of Sampling	25.07.2023
Sampling Done by	[illegible]
[illegible]	[illegible]
Type of Sampling	Grab Sample
Sampling Protocol	IS 3025 (Part-01)
Sample Quantity	2 Ltr
Sample Packing	Plastic Bottle
Sample Marking	ETP Outlet

[illegible] Received on	25.07.2023
[illegible] Start Date	25.07.2023
[illegible] End Date	29.07.2023

TEST RESULTS
WASTE WATER SAMPLE ANALYSIS

S. No.	Parameters	Units	Results	Limits as per CPCB for discharge in Inland Surface Water	Test Method
1	pH Value at 25°C		7.73	5.5 to 9.0	IS 3025 (Part-11) 1983 RA 20[illegible]
2	Total Suspended Solids	mg/l	8.0	100 max	IS 3025 (Part-17) 1984 RA 20[illegible]
3	Total Dissolved Solids	mg/l	702.0	-	IS 3025 (Part-16) 1984 RA 20[illegible]
4	Chemical Oxygen Demand	mg/l	33.0	250 max	IS 3025 (Part-58) 2006 RA [illegible]
5	Bio Chemical Oxygen Demand (at 27°C for 3 days)	mg/l	7.5	30 max	IS 3025 (Part-44) 1993 RA 2019
6	Oil & Grease	mg/l	2.0	10 max	IS 3025 (Part-39) 1991 RA 2019
7	Detergent	mg/l	<2.0	-	IS 3025 (Part-32)

End of Report

Analyst

AUTHORISED SIGNATORY

Format No. SAL/7.8F-01 Issue No. 01 Issue Date 05.01.2021 Rev. No. 01
Page 01 of 01

Note :
1. The results given above are related to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
2. Responsibility of the Laboratory is limited to the invoiced amount only.
3. This test report will not be generated again, either wholly or in part, without prior written permission of the laboratory.
4. This test report will not be used for any publicity/legal purpose.
5. The test samples will be disposed off after two weeks from the date of issue of test report unless until specified by the customer.

(7)

(36)

SPECTRA ANALYTIC LABS

(An ISO 9001:2015, 14001:2015 OHSAS 45001:2018 Certified & NABL Accredited Laboratory)
Plot No-343/14, Krishna Colony, Sehatpur, Faridabad, Haryana-121003
E-mail : care.spectra@gmail.com | Website : www.Spectraanalyticlabs.com | Ph : 9310207829, 9560653541, 9891225809

TEST REPORT

Name & Address of Customer			
Issued to, M/S NORTHERN RAILWAY DIESEL LOCOMOTIVE SHED TUGHLAKABAD NEW DELHI-110044		Test Report Number	WW/0423/10102
		Date of Report	10.04.2023
		Job Order Number	SAL/WW0423/05102
		Sample Description	One Sample of Waste Water
		Date of Sampling	05.04.2023
		Sampling Done by	Puran Singh (Lab Representative)
		Sample Location	ETP Treated Water
		Type of Sampling	Grab Sampling
		Sampling Protocol	IS: 3025 (Part-01)
Sample Received on	05.04.2023	Sample Quantity	2 Ltr
Analysis Start Date	05.04.2023	Sample Packing	Plastic Bottle
Analysis End Date	10.04.2023	Sample Marking	ETP Outlet

TEST RESULTS

WASTE WATER SAMPLE ANALYSIS

S. No	Parameters	Units	Results	Limits as per CPCB for discharge in Inland Surface Water	Test Method
1	pH Value at 25°C	-	7.50	5.5 to 9.0	IS: 3025 (Part-11) 1983 RA 2017
2	Total Suspended Solids	mg/l	42.0	100 max	IS: 3025 (Part-17) 1984 RA 2017
3	Total Dissolved Solids	mg/l	632.0	-	IS: 3025 (Part-16) 1984 RA 2017
4	Chemical Oxygen Demand	mg/l	46.0	250 max	IS: 3025 (Part-58) 2006 RA 2017
5	Bio Chemical Oxygen Demand (at 27°C for 3 days)	mg/l	7.5	30 max	IS: 3025 (Part-44) 1993 RA 2019
6	Oil & Grease	mg/l	3.0	10 max	IS: 3025 (Part-39) 1991 RA 2019
7	Detergent	mg/l	<2.0	-	IS: 3025 (Part-32)

End of Report

Analyst

SPECTRA ANALYTIC LABS Authorised Signatory

AUTHORISED SIGNATORY

Note :
1. The results given above are realated to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
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(8)

DSL/TKD/ETP Treated water Report : 5

(27)

SPECTRA ANALYTIC LABS

The Result You Can Trust

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Plot No-343/14, Krishna Colony, Sehatpur, Faridabad, Haryana-121003
E-mail : care.spectra@gmail.com | Website : www.Spectraanalyticlabs.com | Ph : 9310207829, 9560653541, 9891225809

TEST REPORT

Name & Address of Customer		Test Report Number	RW/0123/13101
Issued to, M/S NORTHERN RAILWAY DIESEL LOCOMOTIVE SHED TUGHLAKABAD NEW DELHI-110044		Date of Report	13.01.2023
		Job Order Number	SAL/WW/0123/09101
		Sample Description	One Sample of Waste Water
		Date of Sampling	09.01.2023
		Sampling Done by	Puran Singh (Lab Representative)
		Sample Location	ETP Treated Water
		Type of Sampling	Grab Sampling
		Sampling Protocol	IS: 3025 (Part-01)
Sample Received on	09.01.2023	Sample Quantity	2 Ltr
Analysis Start Date	09.01.2023	Sample Packing	Plastic Bottle
Analysis End Date	13.01.2023	Sample Marking	ETP Outlet

TEST RESULTS

WASTE WATER SAMPLE ANALYSIS

S No	Parameters	Units	Results	Limits as per CPCB for discharge in Inland Surface Water	Test Method
1	pH Value at 25°C	-	7.64	5.5 to 9.0	IS: 3025 (Part-11) 1983 RA 2017
2	Total Suspended Solids	mg/l	8.0	100 max	IS: 3025 (Part-17) 1984 RA 2017
3	Total Dissolved Solids	mg/l	702.0	-	IS: 3025 (Part-16) 1984 RA 2017
4	Chemical Oxygen Demand	mg/l	42.0	250 max	IS: 3025 (Part-58) 2006 RA 2017
5	Bio Chemical Oxygen Demand (at 27°C for 3 days)	mg/l	8.0	30 max	IS: 3025 (Part-44) 1993 RA 2019
6	Oil & Grease	mg/l	2.0	10 max	IS: 3025 (Part-39) 1991 RA 2019
7	Detergent	mg/l	<2.0	-	IS: 3025 (Part-32)

End of Report

Analyst

SPECTRA ANALYTIC Authorised Signatory

AUTHORISED SIGNATORY

Note :
1. The results given above are realated to the tested sample, as received & mentioned parameters. The customer asked for the above tests only.
2. Responsibility of the Laboratory is limited to the invoiced amount only.
3. This test report will not be generated again, either wholly or in part, without prior written permission of the laboratory.
4. This test report will not be used for any publicity/legal purpose.
5. The test samples will be disposed off after two weeks from the date of issue of test report, unless until specified by the customer.

Annexure - II (9)

Spectra Analytic Labs	Format No.: SAL/7.3-01 Page 1 of 1
Sampling Sheet (Water & Waste Water)	Issue No. 00 Issue date: 02.11.2020 Rev. No.: 00, Rev. Date:

Sample Code	SAL/WW/0124/27/01	Date of Sample Receiving	27/01/2024
Customer Name & Address	M/S Northern Railway Diesel Locomative shed Tughlakabad New Delhi – 110044		
Date of Sampling	27/01/2024		
Sample Collected By	Ravi & Suraj		
Environmental Condition			
Sample Description	Drinking Water / Ground Water/ Surface Water/ Waste Water ✓		
Source	Hand Pump / Borewell / River / Lake / Well / RO /ETP Inlet/ ETP Outlet ✓/ STP Inlet/ STP Outlet		
Sampling Location	ETP Plant		
Separate Sample Collected For (Mark (√) if Yes and Mark (x) if No)	Metals (acidified to pH<2 using HNO_3)	Fixed for Dissolved Oxygen (add 1 mL MnSO4 followed by 1 mL Alkali-iodide-aside)	Oil & Grease
Sample Identification Marking		Type of sampling	Grab/ composite ✓
Quantity	1 litre		
Packing Details	Plastic Bottle.		

Results of Parameters Done at Site

S. No.	Parameters	Instrument Used	Results
01	Appearance	Visual	
02	Odour	—	
03	Temperature in °Celsius	Thermometer	
04	pH	pH Meter	
05	Residual Chlorine, mg/L	E – Merck kit	
06	Any Other (Remark)		

Suraj
Name & Signature:

Customer Representative

Ravi
Sampling done By

Ravi
Sample Received By

(10)

National Accreditation Board for Testing and Calibration Laboratories

NABL

CERTIFICATE OF ACCREDITATION

SPECTRA TESTING LABS (OPC) PRIVATE LIMITED

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

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

for its facilities at

PLOT 343/14, KRISHNA COLONY, FARIDABAD, HARYANA, INDIA

in the field of

TESTING

Certificate Number: TC-12794

Issue Date: 26/12/2023 Valid Until: 25/12/2025

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

Name of Legal Entity: SPECTRA TESTING LABS (OPC) PRIVATE LIMITED

Signed for and on behalf of NABL

N. Venkateswaran
Chief Executive Officer

Annexure-III

(11)

Hon'ble NGT in its order dated 04.12.2023. in M.A. No. 118/2023 (O.A. No. 132/2023) in the matter of Gaurav Bansal Vs. GNCTD made DPCC respondent. The main contention of the complainant in this application is the discharge of untreated oil from Electric Locomotive Shed in Tugalkabad into the drain reaching Mohan Cooperative Industrial Area.

In compliance of the orders of Hon'ble NGT, the inspection of Electric Locomotive Shed was conducted by DPCC officials. However, during the inspection, it was known that the Railways had already submitted a report in Hon'ble NGT on this issue and the report had been submitted by the Diesel Locomotive Shed in Tughlakabad located adjacent to this facility.

In view of the above, the inspection was conducted on 18.12.2023 and 20.12.2023 of the Locomotive shed which consists of two wings i.e. Electric Locomotive Shed and Diesel Locomotive Shed. Geotagged photographs are attached with this report. The observations of the inspection are as follows:-

The observations of the inspection of Electric Locomotive Shed, Tugalkabad are under:-

1. The shed is engaged in the maintenance of Electric Locomotive Engines. The holding capacity of the shed is 297 Locomotives. The facility maintains around 20 Locomotive per day.
2. The source of oil pollution is from the majorly damaged parts of the locomotive and gear box.
3. The entire waste oil collected from the maintenance activity is stored in drums which are kept on paved surface. Approximately 1700 litres/month of the waste oil is generated (8 drums of 210 liters capacity each). The oil collected is auctioned to refining/ recycling facility i.e. M/s Friends Oil Company in Ludhiana, which is registered with the Punjab Pollution Control Board for recycling/ refining of Hazardous Waste.
4. The total water consumption of the shed is about 40 Kiloliter/day which is sourced from the tube-wells installed in the premises. Permission of DJB was not shown, as per information the Tube-well is very old.

02/01/2024
SSE/C.S./TPS/TKD

02.01.24
AEE/TRS/TKD

(12)

5. There is no washing of Locomotive take place at this shed.
6. The sewage generated from toilets is discharged in underground septic tanks from where it is collected by the contractor M/s MHE electronics LLP-South Delhi.
7. The waste water generated from other activity e.g. hand washing etc. is treated in ETP installed through Physicochemical treatment. The treated water from the ETP is used in gardening. It is informed that sludge generated is being collected by the contractor M/s MHE electronics LLP-South Delhi.
8. The unit does not have any discharged point into the nearby drain, which leads to Mohan Cooperative Industrial Area.

02.01.2024
ADEE/TRS/TKD

02.01.2024
SSE/C.S./TRS/TKD

The observations of the inspection of Diesel Locomotive Shed, Tugalkabad are under:-

1. The shed is engaged in the maintenance of Locomotive Engines and is one of the 40 such centers all over India. The holding capacity of the shed is 272 Locomotive and this facility maintains around 15 Locomotive per day.
2. The source of oil pollution is from the majorly damaged parts of the locomotive, gear box and oil change which is collected in drums and auctioned through contractor.
3. The total water consumption of the shed is about 100 Kiloliter/Day which is sourced from the tankers from the Railway well installed at Hazarat Nizamuddin Station. This water is utilized for washing of Locomotives, in toilets and for gardening.
4. The wastewater generated from washing of locomotives and surfaces is treated in the ETP installed within the facility.
5. The capacity of ETP installed is 60 KLD and the component of ETP include oiling grease trap, equalization tank, dosing tank (lime and polyelectrolyte is added), aeration tank and sand filter.
6. The sludge from the sand filter is discharge to the sludge beds for drying naturally under the sun.
7. For collection of oil and grease from the oil and Grease tank, a mechanical oil separator has been installed.

CMA/DSL/TKD
02/01/2024

ADMT/TKD
02/01/2024

(13)

8. A part of the treated water is used for the gardening and rest of the treated effluent is discharged in the nearby drain.
9. The treated water monitoring result submitted by the unit from an NABL accredited Lab shows the para meters to be within the limit.
10. As informed by the unit, a bypass had been installed in one of the manholes through which a part of the un-treated effluent containing oil and grease used to be discharged directly to the drain. The manhole has since then been closed. The point was inspected and picture of the same has been taken.
11. There is no sewerage in the area and the entire sewage from the shed area is being discharged into the drain directly.
12. The unit has agreement with a TSDF facility i.e. Re-sustainability Ltd. located at Bawana for disposing of the sludge from the aeration tank (which is not necessary as it is not an Hazardous Waste).
13. The separated oil from the oil and grease trap, is being auctioned by Railways to the highest bidder.

Conclusion:

1.0 No oil and grease was seen being discharged into the drain from electric locomotive shed. Infact, there is no outfall from the shed into the nearby drain.

2.0 No oil and grease was seen discharged directly into the drain from diesel locomotive shed also. The bypass existing before, as per information gathered, has now been closed.

3.0 The diesel locomotive shed needs to modify its ETP for proper treatment of the waste water. The facility also needs to install STP for treating the sewage before discharging it into the drain.

Nikunj Malik 02/11/22
(JEE, CMC-II)
NIKUNJ MALIK

Ajeet 02/01
(SEE, CMC-II)
Ajeet Dayal Agrawal

Date of Inspection : 18/11/22 & 20/11/22

Officials in Inspection : 1. Ajeet Dayal Agrawal, SEE
2. Sh. Nikunj Malik, JEE