

**JOINT COMMITTEE INSPECTION REPORT AS PER**  
**THE HON'BLE NATIONAL GREEN TRIBUNAL (PB), NEW DELHI**  
**ORDER DATED 03.12.2019 IN O.A.NO.1029 OF 2019.**

**Submitted to**  
**Hon'ble National Green Tribunal (PB)**  
**New Delhi**

**February 2020**



## **1. ORDERS OF THE HON'BLE TRIBUNAL**

Hon'ble National Green Tribunal (PB), New Delhi order dated 03.12.2019 in the matter of O.A.No.1029 of 2019 directed the following:

“Let a joint Committee of the Central Pollution Control Board (CPCB), Municipal Corporation, Chennai and the Tamil Nadu State Pollution Control Board (TNPCB) look into the matter and furnish an action taken report in the matter before the next date by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in). The State PCB will be the nodal agency for coordination and compliance.

We may also refer to order of this Tribunal dated 29.11.2019 in O.A. No. 829/2019, Lt. Col. Sarvadaman Singh Oberoi v. Union of India & Ors., dealing with the subject of coastal pollution on account of dumping of waste and discharge of sewage and effluents and requiring action being taken by the Coastal States, including Tamil Nadu.”

The copy of the order is enclosed as **Annexure 1**.

## **2. COMPOSITION OF THE COMMITTEE**

The joint committee was constituted comprising the following members as directed by the Hon'ble National Green Tribunal.

1. Sh.R. Rajkumar, Scientist D, Central Pollution Control Board, Regional Directorate - South, Bengaluru
2. Sh. M. Malaiyandi, Joint Chief Environmental Engineer (Monitoring), Tamil Nadu Pollution Control Board, Chennai Zone.
3. Sh.G. Veerappan, Superintending Engineer (SW), Greater Chennai Corporation, Chennai.

## **3. JOINT INSPECTION OF THE COMMITTEE**

The joint committee has inspected the shoreline of Pattinampakkam near the confluence point of River Adyar on 03.02.2020 and no sea foaming was noticed and mixed sewage inflow from Adyar River into sea was observed due to low tide action.



**Joint committee inspection on 03.02.2020**

## **4. METHOD OF SAMPLING AND ANALYSIS**

News was flashed in the Print / Electronic media on frothing of sea at marina beach, near Pattinampakkam on 29.11.2019. Based on this, a team of officials from TNPCB were inspected the stretch of Srinivasapuram to Pattinampakkam and Ururkuppam shoreline on 29.11.2019 and noticed that there was a blanket of sea foam

along the shoreline for about 1 KM either side from the confluence point of River Adyar in to the sea as shown in the following figures.



### Frothing of sea occurred on 29.11.2019

The day of frothing on 29.11.2019, surface water samples were collected by the TNPCB at the following locations for analysis.

1. Surface Water at River Adyar before confluence point into the sea.
2. Confluence point of River Adyar into sea at 250m, 500m and 1Km away from River Adyar mouth towards Marina beach.

The Report of Analysis of the surface water samples collected on 29.11.2019 is given in below table:

Parameters analyzed (Except pH all values are in mg/L)	Surface Water at River Adyar before confluence point into the sea on 29.11.2019	Collection of Samples from confluence point of River Adyar into sea		
		250m away	500m away	1 Km away
pH	7.34	7.35	7.58	8.03
COD	144	-	-	-
Oil & Grease	<2	<2	<2	<2
Sodium	622	644	799	988
Potassium	445	43	63	140
Nitrite as N	0.047	0.049	0.057	0.025
Nitrate as N	0.13	0.15	0.14	0.35
Ammonia N as N	3.92	4.48	5.6	2.8
Total Khejdhal Nitrogen	5.6	6.2	8.4	3.9
Dissolved phosphate	0.656	0.598	0.489	0.672
Dissolved oxygen	4.5	4.7	4.6	4.8
Alkalinity	213	135.8	135.8	97
Chloride	1979	2049.4	3799	11496
Fecal Coliform	<1.8	-	-	-
Total Coliform (MPN/100ml)	140	-	-	-

Further, the shoreline was again inspected by the TNPCB officials on 03.12.2019 and no sea foaming was noticed on the shoreline of Pattinampakkam and Ururkuppam (either side of confluence point of River Adyar). However, lot of debris was found to be accumulated along the shoreline as shown in the following figures.



**Debris found in the sea shore near Adyar River confluence point.**



**No debris found in the sea shore away from Adyar River confluence point.**

Further the TNPCB officials have inspected the shoreline of Pattinampakkam and Ururkuppam (either side of confluence point of River Adyar) on 06.12.2019 to assess the quality of water and collected water samples in the same locations from which samples collected on 29.11.2019 and the report of analysis is tabulated below.

Parameters analyzed (Except pH all values are in mg/L)	Surface Water at River Adyar before confluence point into the sea on 06.12.2019	Collection of Samples from confluence point of River Adyar into sea		
		250m away	500m away	1 Km away
pH	7.74	7.93	7.97	8.01
COD	-	-	-	-
BOD	2	3	2	2
Oil & Grease	<2	<2	<2	<2
Sodium	5240	5640	7140	7220
Potassium	169	180	194	198
Nitrite as N	0.10	<0.05	<0.05	<0.05
Nitrate as N	<1	<1	<1	<1
Ammonia N as N	<2	<2	<2	<2
Total Khejdhal Nitrogen	<2	<2	<2	<2
Dissolved phosphate	0.179	1.187	0.143	<0.5
Dissolved oxygen	5.3	6	6.2	6.5
Alkalinity	-	-	-	-
Chloride	16000	26500	23000	27000
Fecal Coliform	<1.8	-	-	-
Total Coliform (MPN/100ml)	<1.8	-	-	-

During inspection on 06.12.2019, the marine debris were found to be accumulated nearly about 800 m along the coastal stretch of Adyar River Mouth towards northern direction (Marina beach side) and not that much of accumulation was noticed towards southern direction. The sea water was found to be clear and odourless.

The waste debris were found to be waste plastic fragments, thermocol, wood, chappals & helmets, Eichhornic Crassipes (Agaiya Thamarai) etc.,

#### 5. ACTION TAKEN BY TNPCB.

As the Common Effluent Treatment Plant namely M/s. Pallavaram Tanners Industrial Effluent Treatment Company Limited, located at Pammal Village, Alandur Taluk, Kancheepuram District is consented to discharge treated effluent into Adyar River after achieving the prescribed standard norms, the CETP was surprisingly inspected by the concerned TNPCB, District Environmental Engineer, Maraimalai Nagar on 30.11.2019 at 11.30 PM and noticed that no untreated trade effluent was discharged into River Adyar.

On perusal of Report of Analysis of surface water samples collected on 29.11.2019, the TNPCB observed that the presence of sodium in Adyar River and in the sea water at 3 locations were in the range of 622mg/L - 988mg/L, Chlorides in Adyar River and in the sea water at immediate 2 locations were in the range of 1979 mg/L – 3799 mg/L and total Coliform in Adyar River and in the sea water at 3 locations were in the range of 140 MPN/100ml – 250 MPN/100ml which indicates high influence of sewage in sea water as well as Adyar River.

Whereas the Report of Analysis of surface water samples collected on 06.12.2019, reveals that the presence of sodium in Adyar River and in the sea water at 3 locations were in the range of 5240mg/L - 7220mg/L, Chlorides in Adyar River and in the sea water at immediate 3 locations were in the range of 16000 mg/L – 27000 mg/L and total Coliform in Adyar River is <1.8 which indicates the low influence of sewage in sea water as well as Adyar River.

As the treated trade effluent from M/s.Pallavaram Tanners Industrial Effluent Treatment Company Limited and treated sewage from Common Sewage Treatment Plants (CSTPs) of capacity 23 MLD, 54 MLD extension 1 & 40 MLD extension – 2 located at Nesapakkam operated by Chennai Metro Water Supply & Sewerage Board (CMWSSB) are being disposed into River Adyar, the following directions have been issued by the TNPCB under Section 33A of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 to take necessary action to avoid recurrence of sea foaming.

1. The TNPCB vide Proc.dated.09.12.2019 (Copy enclosed as **Annexure 2**) has issued directions to the Chennai Metro Water Supply & Sewerage Board (CMWSSB), Chennai to take immediate action to connect the unsewered wards located on the banks of River Adyar to underground sewerage system and shall take necessary action to install Tertiary Treatment Plant comprising RO system to the three STPs located at Nesapakkam and explore the possibility of reusing the RO permeate for industrial purpose and to convey & dispose the RO reject directly into sea after conducting the marine impact study through reputed institution to curtail the discharge of sewage into River Adyar.
2. The TNPCB vide Proc.dated.11.12.2019 (Copy enclosed as **Annexure 3**) has issued directions to the CETP of M/s.Pallavaram Tanners Industrial Effluent Treatment Company Limited to expedite the completion of dilution activity for diluting the treated trade effluent with the treated sewage from the common STP of Pallavaram Municipality as directed by the Board within specified time limit (31.03.2020) and furnish the progress report on the above said work fortnightly to the Board, furnish the status of the upgradation works carried out by the CETP and the performance of the treatment systems.

## **6. ACTION TAKEN BY THE GREATER CHENNAI CORPORATION**

Zone – 13 of Greater Chennai Corporation was involved in removal & cleaning of coastal stretch by deploying trucks & JCBs and started the cleaning work on 05.12.2019 and completed on 08.12.2019. It was reported by the Greater Chennai Corporation that about 18 trucks of collected debris were transported and dumped into the Perungudi Municipal Solid Waste dump site.

The photographs taken during the removal operation is submitted below.



**Secluded debris on the coastal stretch**



**Cleaned coastal stretch**



**Removal of secluded debris through Machinery**



## **7. ASSESSMENT OF THE COMMITTEE**

During inspection of the joint committee on 03.02.2020 in the shoreline of Pattinampakkam near the confluence point of River Adyar, no sea foaming was observed due to low tide action.

1. The sea foam is generally created by the agitation of seawater, particularly when it contains higher concentrations of dissolved organic matter (including proteins, lignins, and lipids) derived from sources such as the offshore breakdown of algal blooms. These compounds can act as surfactants or foaming agents. In this connection it is observed that there is no algal bloom in this area.

2. Also, sea foam is a common phenomenon during the monsoon after heavy rain, when the winds are swift and swirly and detergent residues in rivers and canals mix with the saline water and get whipped up due to the action of the winds to form foam. Chemical waste discharges by industries and sewerage into the oceans and seas also cause such foam to be formed on the sea.
3. The cause for the frothing of sea occurrence on 29.11.2019 may be due to the following reasons:
  - i. Due to heavy rain, flow of the river is increased, which causes disturbance of bottom settled debris and sludge leads to froth formation due to high mixing/turbulence. The indication of disturbance was confirmed by the settled debris in shore line.
  - ii. The Chennai River Restoration Trust (CRRT) is carrying out de-silting of Adyar River due to which sediments (containing organic matter) would have reached sea which causes sea foaming.
  - iii. Analysis report shows variation in the water quality on the day of froth formation and normal day, which indicates mixing of rain water and sewage. Chance of bypassing of untreated/partially treated sewage from Common Sewage Treatment Plants (CSTPs) of capacity 23 MLD, 54 MLD extension 1 & 40 MLD extension – 2 located at Nesapakkam operated by Chennai Metro Water Supply & Sewerage Board (CMWSSB) into River Adyar during the rainfall before the date of sea foam occurrence.
4. TNPCB shall monitor the Common Sewage Treatment Plants (CSTPs) of capacity 23 MLD, 54 MLD extension 1 & 40 MLD extension – 2 located at Nesapakkam operated by Chennai Metro Water Supply & Sewerage Board (CMWSSB) and M/s.Pallavaram Tanners Industrial Effluent Treatment Company Limited, Tannery CETP effectively especially during rainy season so as to avoid recurrence of sea foam at the confluence point of River Adyar. Moreover, the flow meters installed at CSTPs shall be connected to TNPCB online monitoring system for effective monitoring.
5. Hon'ble National Green Tribunal (PB), New Delhi, in O.A.No.558/2018, 557/2018, 559/2018 & 556/2018 in the matter of pollution of rivers Adyar, Cooum & Buckingham Canal order dated 13.02.2019, constituted a joint committee comprising of representatives of CPCB, IISC-Bangalore, Madras School of Economics, NEERI and TNPCB **to assess the cause and quantum of damage to the environment as well as further steps required for restoration of environment which are not covered in the action plan.**
6. Moreover, Chennai River Restoration Trust (CRRT) Chairperson/Chief Secretary of Tamil Nadu is reviewing the performance of the works carried out by the CRRT regularly. The action plan of the CRRT involves abatement of pollution, eviction of encroachments, plugging of sewer in-falls providing interceptors and diversion arrangements, modular sewage treatment plants, widening and deepening of waterways etc.

Since the above constituted joint committee is working as per Hon'ble NGT directions, environmental compensation is not carried out at this inspection/monitoring.

  
 G.Veerappan,  
 Superintendent Engineer,  
 Greater Chennai Corporation,  
 Chennai.

  
 M.Malaiyandi,  
 Joint Chief Env. Engineer (M)i/c,  
 Tamil Nadu pollution Control,  
 Board, Chennai.

  
 R.Rajkumar  
 Scientist D,  
 Central pollution  
 Control Board,  
 Regional Directorate  
 (South), Bengaluru.

# ANNEXURE 1

Item No. 14

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 1029/2019

Instagram BBC News with regard to  
Coastal Pollution on Marina Beach, Chennai

Date of hearing: 03.12.2019

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE S.P WANGDI, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

**ORDER**

The news item on Instagram BBC News dated 03.12.2019 has been put up showing huge collection of foam at Marina Beach, Chennai. Similar news items appear in other papers of today, including Indian Express.

Let a joint Committee of the Central Pollution Control Board (CPCB), Municipal Corporation, Chennai and the Tamil Nadu State Pollution Control Board (TNPCCB) look into the matter and furnish an action taken report in the matter before the next date by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in). The State PCB will be the nodal agency for coordination and compliance.

We may also refer to order of this Tribunal dated 29.11.2019 in O.A. No. 829/2019, *Lt. Col. Sarvadaman Singh Oberoi v. Union of India & Ors.*, dealing with the subject of coastal pollution on account of dumping of waste and discharge of sewage and effluents and requiring action being taken by the Coastal States, including Tamil Nadu.

A copy of this order be sent to CPCB, Municipal Corporation, Chennai and TNPCB along with the photocopy of the news item by e-mail for compliance.

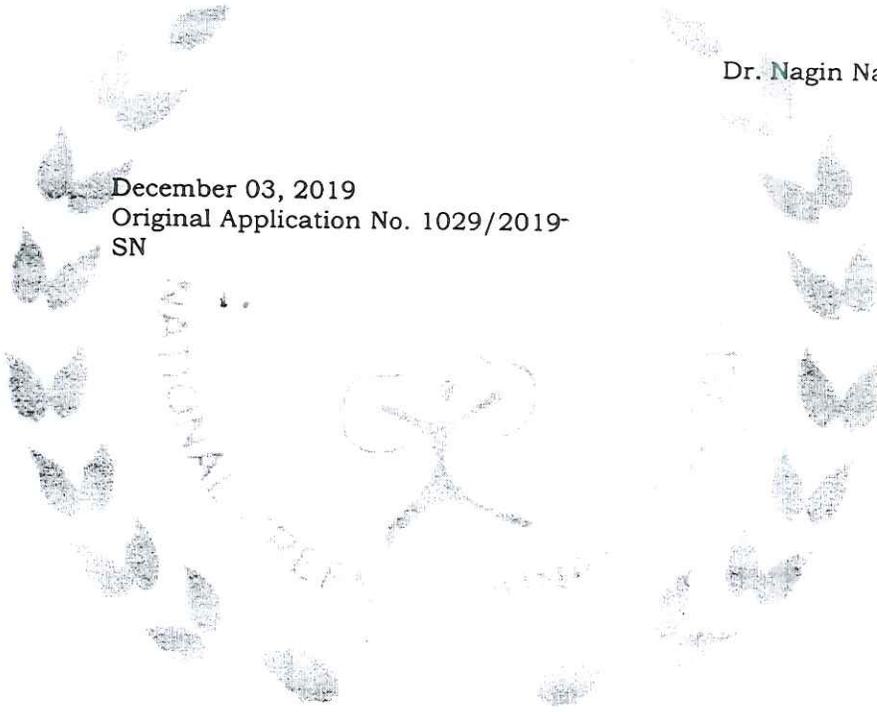
List for further consideration on 10.02.2020.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

Dr. Nagin Nanda, EM

December 03, 2019  
Original Application No. 1029/2019-  
SN



**TAMILNADU POLLUTION CONTROL BOARD**



Proceedings No. T5/TNPCB/F.20469/CHN/2019/ dated: 09.12.2019

**Sub:** TNPCB – Local Body – Frothing along the sea shore at Pattinapakkam Beach, Chennai – Directions issued to the Chennai Metro Water Supply & Sewerage Board (CMWSSB), Chennai under Section 33A of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 to take necessary action to avoid recurrence of sea foaming - Regarding.

**Ref:** 1. JCEE(M),CHN, Lr.No:JCEE(M)/TNPCB/CHN/2019, dated : 30/11/2019  
2. JCEE(M),CHN, Lr.No:F.No.150/JCEE(M)/TNPCB/CHN.ZONE/2019, dated : 03/12/2019

Whereas, the Joint Chief Environmental Engineer(Monitoring), Tamil Nadu Pollution Control Board, Chennai vide reference first cited has investigated the matter of sea foaming along the sea shore at Pattinapakkam Beach, Chennai on 29/11/2019 and collected 4 samples from the following locations:-

- (1) Surface water at River Adyar before confluence point into the sea.
- (2) Collection of Samples (i). 250 m away from confluence point of River Adyar into sea, (ii). 500 m away from confluence point of River Adyar into sea and 1 Km away from confluence point of River Adyar into sea.

The samples were collected on 29.11.2019 from confluence point of River Adyar into sea by the JCEE(Monitoring), Chennai and sent to AEL/TNPCB/Chennai for analysis. The Report of Analysis dated 02/12/2019 reveals that the presence of Sodium in Adyar River at point (1) and in the sea water at 3 locations at point (2) (i), (ii) & (iii) were in the range of 622 mg/L – 988 mg/L which shows the presence of sewage in sea water even to the distance of 1 Km from Adyar River. It seems that the wastewater discharged into sea is from sewage, since the presence of sodium in the seawater is > 10,000 mg/L.

Based on that, the following were furnished as the reasons for foaming activity along the sea shore at Pattinapakkam Beach, Chennai by JCEE(M),Chennai vide reference second cited

- I. Common Sewage Treatment Plants (CSTPs) of capacity 23 MLD, 54 MLD extension 1 & 40 MLD extension – 2 located at Nesapakkam operated by CMWSSB is disposing the treated sewage into River Adyar. On perusal of ROA of treated sewage samples collected during the period from April 2019 to August 2019 reveals that the parameters are within the standards prescribed by the Board except BOD. Further, these CSTPs have not provided Online Continuous Effluent Monitoring System (OCEMS) for any parameters.

- II. The sewage generated from the wards in the unsewered area could have reached the River Adyar.

Based on the above, the JCEE(M), TNPCB, Chennai has recommended that directions may be issued to Chennai Metro Water Supply & Sewerage Board (CMWSSB), Chennai, under Section 33A of Water (P&CP) Act, 1974 as amended, so as to avoid recurrence of sea foaming at Pattinapakkam Beach.

In the light of the above said facts and in exercise of the powers conferred under Section 33 A of the Water (P&CP) Act, 1974 as amended in 1988, it is decided to issue directions to the Chennai Metro Water Supply & Sewerage Board (CMWSSB), Chennai to take immediate necessary action to avoid recurrence of sea foaming at Pattinapakkam Beach and along the shoreline

Hence, in exercise of the powers conferred under Section 33 A of the Water (P&CP) Act, 1974 as amended in 1988, it is hereby directed that

- (1) The Chennai Metro Water Supply & Sewerage Board (CMWSSB) shall take immediate necessary action to connect the unsewered wards located on the banks of River Adyar to underground sewerage system.
- (2) The Chennai Metro Water Supply & Sewerage Board (CMWSSB), shall take necessary action to install Tertiary Treatment Plant comprising RO system to the three STPs located at Nesapakkam and explore the possibility of reusing the RO permeate for industrial purpose and to convey & dispose the RO reject directly into sea after conducting the marine impact study through reputed institution to curtail the discharge of sewage into River Adyar.

Further, the action taken in this regard shall be informed to the Board within a period of one month.

The receipt of the proceedings may be acknowledged and the action taken in this regard may also be intimated to this office early.

  
6/12/2019  
**For Chairman**  
Mary  
10.12.2019

# TAMILNADU POLLUTION CONTROL BOARD



To

The Managing Director,  
Chennai Metro Water Supply & Sewerage Board (CMWSSB) - Head Office,  
No. 1, Pumping Station Road,  
Chintadripet,  
Chennai -600 031  
E-mail: [md@cmwssb.in](mailto:md@cmwssb.in)

Copy to:

- ✓ 1. The Joint Chief Environmental Engineer(Monitoring),  
Tamil Nadu Pollution Control Board, Chennai  
First Floor, 950/1, Poonamallee High Road,  
Arumbakkam,  
Chennai-600 106
2. Technical File





# TAMILNADU POLLUTION CONTROL BOARD



**From**

The Member Secretary,  
Tamil Nadu Pollution Control Board,  
76, Mount Salai,  
Guindy, Chennai – 32.

**To**

The Managing Director,  
**M/s. Pallavaram Tanners Industrial Effluent  
Treatment Company Limited,**  
No.105, Anna Salai, Nagelkeni,  
Chromepet, Chennai, Pin: 600044

**Letter No: T1/TNPCB/F.1600MMN/CETP/Tannery/Dilution activity/2019**

**Dated:11.12.2019**

Sir,

**Sub:** TNPCB – Industries – Tannery - M/s. Pallavaram Tanners Industrial Effluent Treatment Company Limited, S.F. No. 190/1, Pammal Village, Alandur Taluk, Kancheepuram District – Dilution activity – work status-Reg.

**Ref:** 1. Bd. letter No. T11/TNPCB/F.1600/MMN/RL/2017 dated: 03.07.2017  
2. Lr. No. F.No. 150/JCEE(M)/TNPCB/CHN.ZONE/2019, Dated: 03.12.2019

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The CETP M/s. Pallavaram Tanners Industrial Effluent Treatment Company Limited, S.F. No. 190/1, Pammal Village, Alandur Taluk, Kancheepuram District has been issued with permission for diluting the treated trade effluent with the treated sewage from the common STP of Pallavaram Municipality and to discharge into the Buckingham Canal vide reference 1<sup>st</sup> cited subject to certain conditions as stated therein.

As the CETP M/s. Pallavaram Tanners Industrial Effluent Treatment Company Limited, S.F. No. 190/1, Pammal Village, Alandur Taluk, Kancheepuram District is discharging treated trade effluent in to Adyar River, the CETP was surprisingly inspected by the DEE, MM Nagar on 30.11.2019. During inspection it was noticed that no untreated trade effluent was discharged in to River Adyar and treated trade effluent sample at the outlet of the CETP were collected and sent for analysis.

In the reference 2<sup>nd</sup> cited, the JCEE(M), Chennai has recommended to issue directions under section 33A of Water (P & CP) Act, 1974 as amended to "The Managing Director, M/s. Pallavaram Tanners Industrial Effluent Treatment Company Limited to expedite the completion of dilution activity along with the treated sewage from the Perungudi STP as directed by the Board and shall stop discharging of treated trade effluent in to River Adyar" so as to avoid recurrence of sea foaming on the shoreline of Pattinampakkam and Ururkuppam (either side of confluence point of River Adyar).

