

**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

Original Application No. 86 of 2021 (SZ)

N.Samiraja,
Perambalur District

...Applicant

Versus

The Chief Engineer,
Tamil Nadu Public Works Department,
Chennai and Ors

...Respondents

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**Filed by
Thiru.S. Sai Sathya Jith,
Advocate, Chennai.**

BEFORE THE NATIONAL GREEN TRIBUNAL
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ORIGINAL APPLICATION NO. 86 of 2021 (SZ)

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Vs

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Chennai and Ors.

...Respondents

REPORT FILED ON BEHALF OF THE 2nd & 4th RESPONDENTS
TAMIL NADU POLLUTION CONTROL BOARD

I, J. Josephine Sahayarani, D/o. Jesu Rajan, Christian, aged about 57 years, having my office at No. 76, Mount Salai, Guindy, Chennai -600032, do hereby solemnly affirm and sincerely state as follows:-

1. I am the Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board, Chennai and I am filing the status Report on behalf of the 2nd & 4th Respondents Tamil Nadu Pollution Control Board and as such I am well acquainted with the facts of the case as per records.

2. It is respectfully submitted that the Hon'ble National Green Tribunal (Southern Zone) in its order dated 22.12.2022, has directed inter alia as follows:

"Para 2: The above referred biological processes, adsorption, filtration and infiltration may be explained and report whether they are in place and file a detailed report in this regard.

Para3: As the above treated water has yet to be tested before they are let into the sand, they are directed to ensure that the water that may be let out finally is free from contamination.

3. It is respectfully submitted that in pursuance to the above said Hon'ble NGT Order, the followings were submitted

J. Josephine Sahayarani
10/11/2023

JOINT CHIEF ENVIRONMENTAL ENGINEER
TAMIL NADU POLLUTION CONTROL BOARD
No.76, MOUNT SALAI, GUINDY,
CHENNAI - 600 032.

- i. The biological processes, adsorption, filtration and infiltration are explained as below

a) Biological Process:

Involves transformation of (i.e., oxidize) dissolved and particulate biodegradable constituents into acceptable end products by the micro organisms. In the community soak pit (**cross sectional diagram of community soak pit enclosed vide Annexure – I**) the micro organisms responsible for the conversion of organic material are attached on the packing material such as stone metal jelly and red gravel. The organic material and nutrients are removed from the waste water flowing past the attached microbial growth also known as a biofilm.

b) Adsorption:

Adsorption is the process of accumulating substances that are in solution on a suitable interface. It is a mass transfer operation in that a constituent in the liquid phase is transferred to the solid phase. The adsorbate is the substance that is being removed from the liquid phase at the interface. The adsorbent is the solid, liquid or gas phase onto which the adsorbate accumulates.

The adsorption process in waste water treatment is used to remove the traces of organic constituents in the waste water to achieve better quality of treated waste water.

In the community soak pit the charcoal is used as adsorbent to remove the remaining dissolved organic matter in the grey water.

c) Filtration:

Filtration involves the removal of particulate material suspended in a liquid (waste water) by passing the liquid through a filter bed comprised of a granular (sand) filter medium. Filtration is used to achieve

supplemental removals of suspended solids (including particulate BOD) from wastewater effluents of biological and chemical treatment processes to reduce the mass discharge of solids.

In the community soak pit the sand and blue metal jelly is used as filter bed to remove the suspended solids (including particulate BOD) from the grey water.

d) Infiltration:

Infiltration is defined as the flow of water/waste water from aboveground into the subsurface soil. In the community soak pit the grey waste water is undergoing the treatment of biological process, adsorption and filtration and finally the treated grey water is let into the underground subsoil through infiltration.

4. It is further submitted that, the black water is treated in the septic tank followed by soak pit as per the guidelines framed under the Indian Standard code of practice [IS :2470 (Part 1 & 2) – 1985 (Reaffirmed 2001)] Part 1 for installation of Septic Tanks, and Part 2 Secondary Treatment and Disposal of Septic Tank Effluent (Partially treated waste water let out from septic tank) Second Revision April 1990 and Central Public Health and Environmental Engineering Organization, Ministry of Urban Development, New Delhi vide its Manual on Sewerage and Sewage Treatment Systems Part – A: Engineering Third Edition – Revised and updated November 2013.

5. It is respectfully submitted that, based on the Hon'ble NGT(SZ) Chennai Order dated:22.12.2022 the said V.Kalathur Village, Veppanthattai Taluk, Perambalur District was inspected on 03.01.2023 and during inspection the followings were observed.

i. The community soak pits located in and around V.Kalathur Village, Veppanthattai Taluk, Perambalur District was inspected.

ii. The Veppanthattai Panchayat Union (Local body) has proposed to construct 14 Nos of community soak pits (Horizontal Filters) as committed earlier to curb the discharge of sewage into the

River Kallaru. During inspection it was observed that the local body has constructed and commissioned 2 numbers of community soak pits (Horizontal Filters) one at nearby Anganvadi at west street and another at Sengamalaiyar temple, Vannaram Poondi of V.Kalathur Village (Photograph Enclosed – vide Annexure-II). One number of community soak pit (Horizontal Filters) is under construction near by Panchayat Office of V.Kalathur Village (Photograph Enclosed). The Local body has also constructed three numbers of vertical filters along the drain carrying grey water opposite to Rayappar temple, V.Kalathur Village. The local body also assured that the community soak pit (Horizontal Filters) at Sengamalaiyar temple, Vannaram Poondi will be revamped within a fortnight time.

In this connection, the directions have already been issued to the Block Development Officer, Veppanthattai Panchayat Union, Veppanthattai Taluk, Perambalur District vide Proc.No.T6/TNPCBd/F.013905/ARY/W/2021 Dated:26.07.2021.

6. It is respectfully submitted that, the Block Development Officer, Veppanthattai Panchayat Union, Veppanthattai Taluk, Perambalur District has instructed by the DEE, TNPCB, Ariyalur vide Lr.No.DEE/TNPCB/ARY/F.NGT.NO.86 of 2021/2022 Date:02.01.2023 (Copy enclosed– vide Annexure-III) to furnish the following

- i. The status of implementation of Grey Water Treatment System in V.Kalathur Village, Veppanthattai Taluk, Perambalur District.
- ii. To furnish the Report of Analysis of treated waste water let out from Grey Water Treatment System (Community Soak pit) into the underlying soil.

And also the Block Development Officer, Veppanthattai Panchayat Union to ensure that the treated waste water let out finally is free from contamination.

Based on that the Block Development Officer, Veppanthattai Panchayat Union has furnished his report vide letter No.A5/627/2020 dated:06.01.2023.

7. It is respectfully submitted that the treated grey water let out from the community soak pit (Horizontal Filter) near Anganvadi, at west street, V.Kalathur Village, Veppanthattai Taluk, Perambalur District was collected on 03.01.2023 and sent for analysis to Advanced Environmental Laboratory, TNPC Board, Tiruchirappalli. The Report of Analysis of the treated grey water sample collected from the community soak pit (Horizontal Filter) out let reveals that the pollutant parameters such as BOD (75 mg/l) and Total suspended solids (266 mg/l) are exceeding the discharge standards of 30 mg/l and 100mg/l respectively laid down for STPs notified vide MoEF & CC Notification G.S.R. 1265(E) dated:13.10.2017.

In this connection, the Block Development Officer, Veppanthattai Panchayat Union, Veppanthattai Taluk, Permbalur District has been instructed to operate and maintain the community soak pit (Horizontal Filter) efficiently and continuously so as to achieve the discharge standards laid down for STPs notified vide MoEF & CC Notification G.S.R. 1265(E) dated:13.10.2017 and complete & commissioned the remaining community soak pits (Horizontal Filter) immediately vide Letter No.DEE/TNPCB/ARY/F.NGT.No.86 of 2021/2022 dated:09.01.2023

Under the above circumstances, it is humbly prayed that this Hon'ble National Green Tribunal (Southern Zone) may be pleased to pass such further or other orders as this Hon'ble Tribunal may deem fit and proper in the facts and circumstances of this case and thus render justice.

J. Josephine Sahayrani
10/11/2023
JOINT CHIEF ENVIRONMENTAL ENGINEER
TAMIL NADU POLLUTION CONTROL BOARD
No.76, MOUNT SALAI, GUINDY,
CHENNAI - 600 032.

BEFORE ME

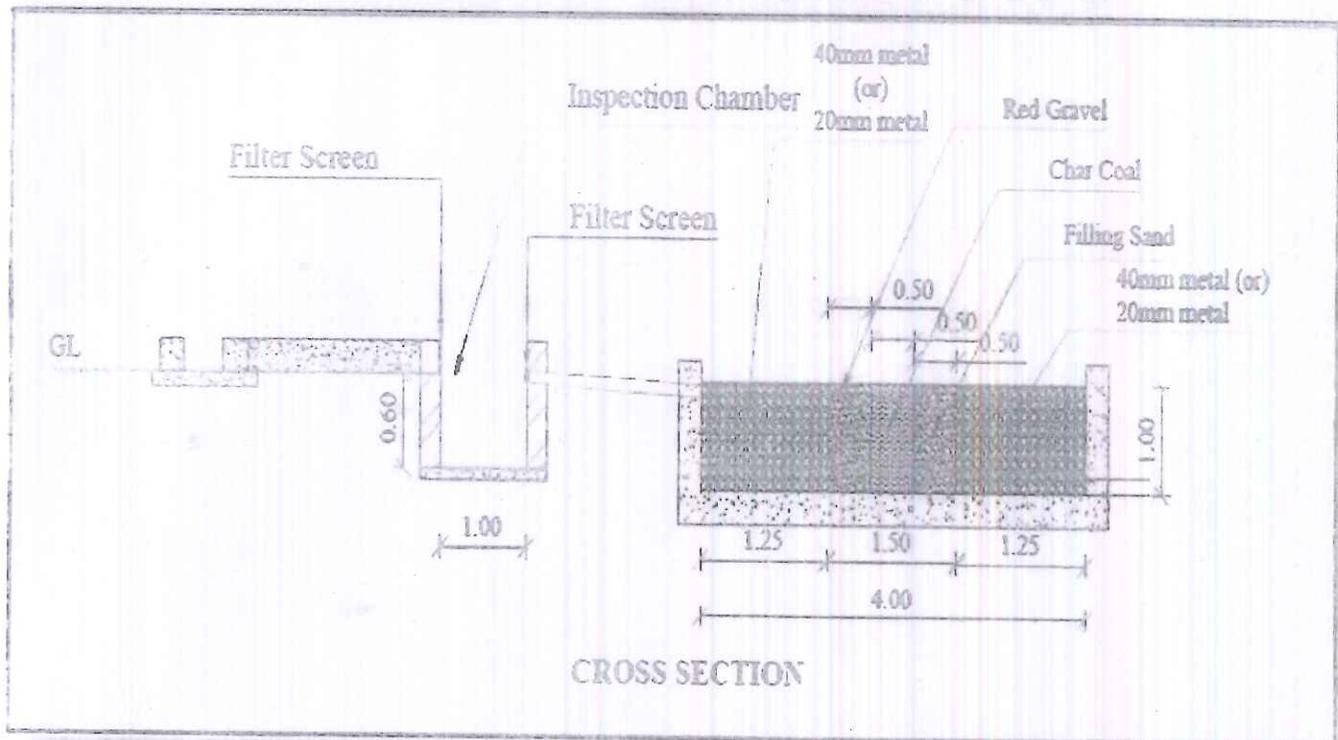
VERIFICATION

I, J. Josephine Sahayarani, D/o. Jesu Rajan, working as Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board, Chennai, do hereby verify that the contents of above report are true to the best of my knowledge through records.

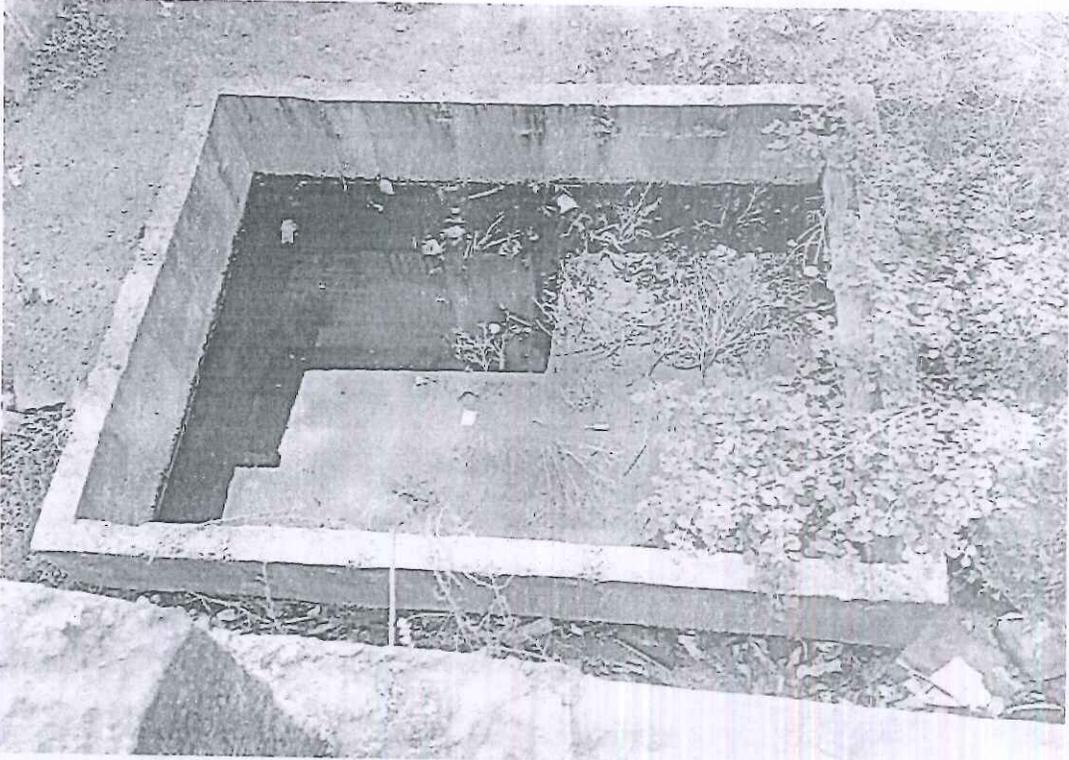
J. Josephine Sahayrani
10/11/2023
JOINT CHIEF ENVIRONMENTAL ENGINEER
TAMIL NADU POLLUTION CONTROL BOARD
No.76, MOUNT SALAI, GUINDY,
CHENNAI - 600 032.

Annexure - I

COMMUNITY SOAK PITS HORIZONTAL FILTER TYPE



Dimensions: 4.46 m(L) x 3.46 m(B) x 1.45 m (D)



Community soak pit (Horizontal Filter) located near Panchayat Office of V. Kalathur Village, Veppanthattai Taluk, Perambalur District.



TAMILNADU POLLUTION CONTROL BOARD

From

Dr. M.Senthil Kumar, M.E, Ph.D.,
District Environmental Engineer,
Tamil Nadu Pollution Control Board,
No.4/326, Trichy Main Road,
Near by RTO Office, Keelapalur Post,
Ariyalur Taluk, Ariyalur District - 621-707.

To

The Block Development Officer,
Veppanthattai Panchayat Union,
Veppanthattai Taluk,
Perambalur District.

Lr. No.DEE/TNPCB/ARY/ F.NGT.NO.86 of 2021/2022 Date: 02.01.2023

Sir,

Sub: Tamil Nadu Pollution Control Board, Ariyalur – Original Application No 86 of 2021 in the Hon'ble NGT (SZ), Chennai order dated 22.12.2022 – Present status of Implementation of Grey Water Treatment System and the Report of Analysis of Treated Water let into soil from Grey Water Treatment System – Report Requested – Reg.

Ref: Hon'ble NGT (SZ), Chennai in it's Order dated 22.12.2022 in Original Application No 86 of 2021 (Copy enclosed).

I invite your kind attention to the Hon'ble NGT in OA.No.86 of 2021(SZ) Order dated: 22.12.2022, wherein the Hon'ble National Green Tribunal has ordered that

1. The Pollution Control Board has filed its report dated 21.12.2022. As per the report the domestic waste water generated in the Kalathur rural area is divided into black water and grey water. The said black and grey water is scientifically handled in the following onsite treatment system.

"The black water generated from toilets in each household is treated in the septic tank followed by soak pit. The septic tank remove most settleable and floatable material and function as an anaerobic bioreactor that promotes partial digestion of retained organic matter. The partially treated waste water from septic tank contains pathogens and nutrients, has been discharged to soil, sand, or other media absorption for further treatment through biological processes, adsorption, filtration and infiltration into underlying soils. The grey water generated in the V.Kalathur rural area will be treated in the Fourteen Community soak pits (under NGNREGA Scheme) filled with graded stones and gravels, absorption for further treatment through biological and chemical treatment processes, adsorption, filtration and infiltration into underlying soils."

- 2. The above referred biological processes, adsorption, filtration and infiltration may be explained and report whether they are in place and file a detailed report in this regard.
- 3. As the above treated water has yet to be tested before they are let into the sand, they are directed to ensure that the water that may be let out finally is free from contamination.

In view of the above, you are requested to furnish the following on or before 07.01.2023, so as to file the report before the Hon'ble NGT.

- i. The status of implementation of Grey Water Treatment System in V.Kalathur Village, Veppanthattai Taluk, Perambalur District.
- ii. To furnish the Report of Analysis of treated waste water let out from Grey Water Treatment System (Community Soak pit) into the underlying soil.

Further, it is informed that Hon'ble NGT directed to ensure that the treated waste water let out finally is free from contamination.

D. Srinivasan
 District Environmental Engineer,
 Tamil Nadu Pollution Control Board,
 Ariyalur.

D. Srinivasan
 02/01/2023

Copy submitted to

The District Collector, Perambalur District - for favour of kind information please.

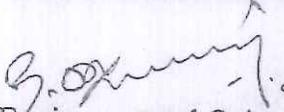


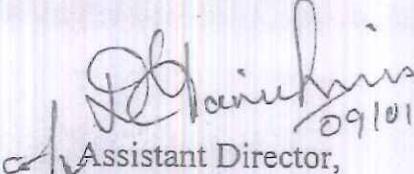
TAMIL NADU POLLUTION CONTROL BOARD
REPORT OF ANALYSIS

R.O.A. No.965/AEL-TRY /Water Report /2022-2023 /Dated:09.01.2023

1. Sample Received From : The District Environmental Engineer,
Ariyalur.
2. Nature and Number of Samples(s) : One No. of sample.
3. Date of Collection : 03.01.2023 at 04.00 PM
4. Date of Receipt of Sample : 04.01.2023 at 11.15 AM
5. Code No. : PK 762/DEE/ARY
6. Point of Collection : PK 762/DEE/ARY – Community soak
pit outlet near Anganvadi at west street,
V. Kalathur Village, Veppanthattai Taluk,
Perambalur District.
(Latitude: 11.400566 N &
Longitude: 78.927678 E)

Sl. No	Parameters	DEE Code	PK 762/DEE/ARY
		LAB Code	2027
		Unit	
1.	pH		7.45
2.	Total Suspended Solids	mg/l	266
3.	BOD at 27° C for 3 days	mg/l	75
Analytical Charges			Rs.2300/-(Board Cost)


- 09/01/23
Environmental Scientist


09/01/2023
Assistant Director,
AEL, TNPCB, Trichy.



TAMILNADU POLLUTION CONTROL BOARD

From

Dr. M.Senthil Kumar, M.E, Ph.D.,
District Environmental Engineer,
Tamil Nadu Pollution Control Board,
No.4/326, Trichy Main Road,
Near by RTO Office, Keelapalur Post,
Ariyalur Taluk, Ariyalur District - 621-707.

To

The Block Development Officer, ✓
Veppanthattai Panchayat Union,
Veppanthattai Taluk,
Perambalur District.

Lr. No.DEE/TNPCB/ARY/ F.NGT.NO.86 of 2021/2022 Date: 09.01.2023

Sir,

Sub: Tamil Nadu Pollution Control Board, Ariyalur – Original Application No 86 of 2021 in the Hon'ble NGT (SZ), Chennai order dated 22.12.2022 – Report of Analysis of Treated Grey Water collected on 03.01.2023 at community soak pit outlet near Anganvadi at west street, V.Kalathur Village, Veppanthattai Taluk, Perambalur District – BOD and Total suspended Solids exceeding the discharge standards – certain instruction issued – Furnish the compliance Report - Called for – Reg.

Ref: 1.Hon'ble NGT (SZ), Chennai in it's Order dated 22.12.2022 in Original Application No 86 of 2021.
2.Report of Analysis of Treated Grey Water collected on 03.01.2023 at community soak pit outlet near Anganvadi at west street, V.Kalathur Village.(Copy enclosed)

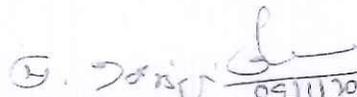
I invite your attention to the references above cited, where in the Report of Analysis of the treated grey water sample collected from the Community soak pit (Horizontal Filter) out let located near Anganvadi at west street, V.Kalathur Village reveals that the pollutant parameters such as BOD (75 mg/l) and Total suspended solids (266 mg/l) are exceeding the discharge standards of 30 mg/l and 100 mg/l respectively laid down for STPs notified vide MoEF & CC Notification G.S.R. 1265(E) dated:13.10.2017. (copy enclosed)

In this connection, you are hereby instructed to operate and maintain the Community soak pits (Horizontal Filter) efficiently and continuously so as to achieve the discharge standards laid down for STPs notified vide MoEF & CC Notification G.S.R. 1265(E) dated:13.10.2017 and complete & commissioned the remaining Community soak pits (Horizontal Filter) immediately.

Further, it is informed that Hon'ble NGT directed to ensure that the treated waste water let out finally is free from contamination.

13

In this juncture you are requested to furnish the action taken report on the aforesaid matter within fortnight time.


District Environmental Engineer,
Tamil Nadu Pollution Control Board,
Ariyalur.

Copy submitted to

1. The Member Secretary, Tamil Nadu Pollution Control Board, Chennai – 32 for favour of kind information please.
2. The District Collector, Perambalur District - for favour of kind information please.

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**REPORT FILED ON BEHALF OF THE 2nd
AND 4th RESPONDENTS - TAMIL NADU
POLLUTION CONTROL BOARD.**

**Advocate for Respondent- TNPCB:
Thiru.S. Sai Sathya Jith,
Advocate, Chennai.**

Date:10.01.2023

Hearing date on:11.01.2023.