

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL ,**  
**SOUTH ZONE, CHENNAI**

**In O.A. No. 11 of 2021 and O.A.No. 12 of 2021 with O.A.No. 50 of 2016(SZ)**

**Final report of the Joint Committee constituted vide Hon'ble NGT(SZ) order dated 09.01.2020 & 28.02.2020 in O.A. No. 50 of 2016 and in O.A. No. 11 of 2021 and in O.A. No. 12 of 2021 .**

Date of inspection of the Joint committee: 04/03/2022

**I. Final Report of the Joint Committee in O.A. No. 50 of 2016 (S. Paul Raj vs The Commissioner, Kayalpattinam Municipality, Tuticorin District and others)**

Thiru. S. Paulraj of Kombuthurai in Kayalpattinam Municipality has filed this O.A. No. 50 of 2016 against the Commissioner, Kayalpattinam Municipality, Thoothukudi District and the District Environmental Engineer, TN Pollution Control Board, Thoothukudi regarding the illegal and unscientific disposal of the Municipal solid wastes by the Kayalpattinam Municipality in violation of the Municipal Solid Wastes (Management and Handling) Rules- 2000, the Water(Prevention and Control of Pollution) Act-1974 and Air(Prevention and Control of Pollution) Act-1981. Thiru. S. Paulraj in his affidavit has stated that the Kayalpattinam Municipality is dumping the municipal solid wastes on lands in S.F. No. 278/1B of Kaalpattinam South Village and has not established any facility to process the waste leading to contamination of soil, ground water and also resulting in fly and mosquito infestation and hence prayed the Hon'ble NGT to direct the Kayalpattinam Municipality to remove the waste dumped at S.F. No. 278/1B of Kaalpattinam South Village.

The Hon'ble NGT(SZ), Chennai in its order dated. 09.01.2020 had constituted a Committee consisted of (1) District Collector, Tuticorin (2) Tamil Nadu Pollution Control Board and (3) Commissioner, Tuticorin Municipality ***to inspect the area in question and submit the present status of the dumping ground and also regarding implementation of the Solid Waste Management Rules, 2016, as directed by the Principal Bench of the National Green Tribunal in O.A. No. 606 of 2018 and if there is any violation, what is the action taken by the Tamil Nadu Pollution Control Board in this regard, including imposition of environmental compensation on the municipality for non-compliance, as directed by the National Green Tribunal, Principal***

**Bench, New Delhi and submit a status and action taken report within a period of one month before this tribunal by e-mail @ngtszfilling@gmail.com. Tamil Nadu Pollution Control Board will be nodal agency for this purpose.**

Subsequently, the Hon'ble NGT (SZ), Chennai in its order dated 28.02.2020 in O.A. No. 50 of 2016 substituted the Commissioner, Kayalpattinam Municipality instead of Commissioner / Tuticorin Municipality in the Committee

In compliance to the Hon'ble NGT (SZ) orders, a Joint Committee was formed with the following members to inspect the Kayalpattinam Municipality Municipal Solid Waste Management sites / areas and to submit the status report:

1. *The RDO, Tiruchendur,  
Thoothukudi District (representing the District Collector, Thoothukudi District)*
2. *The District Environmental Engineer,  
Tamil Nadu Pollution Control Board,  
Thoothukudi (representing Tamil Nadu Pollution Control Board)*
3. *The Commissioner,  
Kayalpattinam Municipality,  
Kayalpattinam, Thoothukudi District.*

***The Joint Committee visited the Kayalpattinam Municipality solid wastes processing sites/ area and existing dumpsites on 18.08.2020 and submitted the report along with the action taken by the Tamilnadu Pollution Control Board to impose Environmental Compensation on the Kayalpattinam Municipality for non-compliance of the Solid Wastes Management Rules, 2016.***

The Joint Committee again visited the Kayalpattinam Municipality solid wastes processing sites/ area and existing dumpsites on 04.03.2022 and the following final report is submitted with respect to the present status of the municipal solid wastes management in Kayalpattinam Municipality:

**Observation made by the Joint Committee during the visit on 04/03/2022.**

Kayalpattinam Municipality located in Tiruchendur Taluk of Thoothukudi District is a 2<sup>nd</sup> grade Municipality having population of **55450** (midyear population 2018). The Municipality has 18 wards. Total Municipal Solid Wastes generation is about 14.00 MT per day (including bio- degradable and non-bio – degradable

wastes). Out of this, the bio- degradable wastes are about 10.5MT per day. Remaining wastes are non-bio – degradable wastes.

For processing the bio- degradable wastes the Municipality has provided two numbers of **Micro Composting Centers (MCC)** of each 3 MT per day capacity and one **Onsite Composting Center (OCC)** of 0.5 MT per day capacity. Apart from this, the Municipality has provided one **Bio- methanationcum – power generation plant** for processing the bio – degradable wastes. The present operating status of these plants is given below:

#### **MCC- 1 (Micro Composting Center- 1)**

This Micro Composting Center is located at Kadayakudi at S.F. No. 278/1B of Kayalpattinam south village in Kayalpattinam Municipality area. The maximum processing capacity of this MCC-1 is 3 MT per day (as per design). This MCC-1 is in operation and about 2.50 MT to 2.8 MT per day of bio – degradable wastes are being processed at present in this MCC-1. The final compost is being sieved using a mechanical sieve. The compost obtained was reported to be sold to farmers. Composting performance was found to be good.

In this MCC1 facility, one number of Mechanical sieve (for sieving the compost), one number of Baling machine (for making the segregated plastic wastes into bales/bundles) and two numbers of shredding machines (for shredding the over-size wastes) have been installed. All these machineries are in working condition.

About 3 to 4 Tonns of the segregated plastics waste was found stored within the premises (partly on open ground and partly inside a closed building). *The Municipality has to take steps to dispose these segregated plastic wastes to cement factories.*

The Municipality has installed CCTV cameras in the campus of this Micro Composting Center. Also, water taps have been installed in this Micro Composting Center to be utilized for firefighting purpose in case of any fire accident at this center.

Authorization has been granted to operate this MCC – 1 by TNPCB vide Authorization No. SWM/ 001-TTN/ 2019 dated 22.04.2019 (Proc. No. F.No.001/JCEE(M)/TNPCB/ TNV/ SWM/TTN/2019. Dated: 22. 04.2019).

#### **MCC-2 (Micro Composting Center-2)**

This Micro Composting Center is located at Sivan Kovil Street, in Kayalpattinam Municipality (at S.F. No. 392/5 of Kayalpattinam Municipality). The

maximum processing capacity of this MCC-2 is 3 MT per day (as per design). This MCC-1 is in operation and about 1 MT per day of bio – degradable wastes are being processed at present in this MCC-2. The compost obtained was reported to be sold to farmers. Composting performance was found to be good.

At this MCC-2, only the segregated bio – degradable wastes are brought for composting. No plastic wastes are brought into this facility.

There are no Baling machines and no Shredding machines available at this facility since only the segregated bio degradable wastes are brought to this facility for composting. Only one Mechanical sieve (for sieving the compost) is installed at this center. This Mechanical sieve is in operation now. The compost is being sieved manually using the mechanical sieve.

Authorization has been granted to operate this MCC-2 by TNPCB vide Authorization No. SWM/ 001-TTN/ 2019 dated 22.04.2019 (Proc. No. F.No.001/JCEE(M)/TNPCB/ TNV/ SWM/TTN/2019. Dated: 22. 04.2019).

#### **OCC (on-site composting center)**

This OCC is located inside the Kayalpattinam Municipality office campus (at S.F. No. 437 of Kayalpattinam Municipality). The maximum processing capacity of this OCC is 0.50 MT per day (as per design). This OCC is in operation and about 0.50 MT per day of bio – degradable waste is processed at present in this OCC. The bio – degradable waste generated from parks, horticultural wastes and the bio – degradable wastes from nearby households are processed at this center. The final compost is sieved manually using a sieve. The compost obtained was reported to be sold to farmers. Composting performance was found to be good.

At this OCC, only the segregated bio – degradable wastes are brought for composting. No plastic wastes are brought into this facility. There are no Baling machines and no Shredding machines available at this center since only the segregated biodegradable wastes are brought to this facility for composting. No Mechanical sieve installed at this OCC and the final compost is sieved manually using a sieve

No burning of the municipal solid waste was noticed during inspection.

Authorization has been granted to operate this OCC by TNPCB vide Authorization No. SWM/ 001-TTN/ 2019 dated 22.04.2019 (Proc. No. F.No.001/JCEE(M)/TNPCB/ TNV/ SWM/TTN/2019. Dated: 22. 04.2019).

### **Bio-methanation cum – power generation plant**

The Kayalpattinam Municipality has installed one Bio-methanation cum power generation plant of 300 m<sup>3</sup> (5 MT) capacity for treating the bio – degradable wastes and to produce electricity from it. This Bio-methanation cum power generation plant is located at S.F.No. 278/1B of Kayalpattinam south village in Kayalpattinam Municipality area adjacent to the MCC-1. The construction of this Bio – methanation – cum power plant completed.

This Bio –methanation – cum power generation plant started trial run during the year 2016 and due to technical / mechanical problems they could not continue the trial run and eventually they have stopped the operation of the plant. From 2016 to November 2021 the plant was reported to be not in operation.

The Municipal Commissioner in her letter dt. 02/03/2022 has informed that the Municipality issued work order on 22/02/2021 to carry out the maintenance works in the Bio –methanation – cum power generation plant and the maintenance works have been completed during November 2021. The Municipal authorities have informed that they have again started trial operation of the plant during November 2021 and operated the plant up to January 2022 and again the plant was shut down. The Bio –methanation – cum power generation plant was found to be not in operation during inspection on 04/03/2022. According to the Municipal Commissioner, Kayalapattinam Municipality the electricity produced in the Bio- methanation plant – cum power generation plant could not be sold out and hence they could not continue the operation of the plant.

Tamil Nadu Pollution Control Board has granted consent for Establishment under the Water Act and Air Act to this Bio – methanation – cum power generation plant vide proceeding No. F.0096/ TTN/ RS/ DEE/ TNPCB/TTN/ W/2015. Dated: 24.06.2015 Proc. No. F.0096/ TTN/ RS/ DEE/ TNPCB/TTN/ A/2015. Dated: 24.06.2015. The Municipality is yet to apply for the consent to operate since they could not put the plant into regular operation due to technical problems.

### **Old municipal solid wastedump site located at Papparapalli**

The municipality has an old municipal solid waste dump site (measuring about 1.82 acres area) at Papparapalli located within the Kaalpattinam Municipality limit. The total quantity of the accumulated legacy waste at the dump site is reported to be 19960 m<sup>3</sup> by volume as per the revised estimate. Bio – mining of this legacy waste in the dump site is yet to be carried out. The Municipality has submitted proposal for Bio-mining of this dump site (at an estimated Project cost of Rs. 160 lakhs) to the Director of Municipal Administration, Chennai through

the Regional Director of Municipal Administration-Tirunelveli vide RC No. 1469/2018A2 Dt. 24/08/2021 and the proposal is yet to be approved.

II. **Final report of the Joint Committee in O.A. No. 11 of 2021 (SZ) (Mass Empowerment and Guidance Association vs The Kayalpattinam Municipality and others)**

Thiru. Mohammed Salihu, Secretary of Mass Empowerment and Guidance Association, Kayalpattinam has filed this O.A. No. 11 of 2021 against the Commissioner, Kayalpattinam Municipality, Thoothukudi District and the District Environmental Engineer, TN Pollution Control Board, Thoothukudi regarding the illegal dumping of the Municipal solid wastes by the Kayalpattinam Municipality in and around S.F. No. 43/1 of Kayalpattinam South village at Papparapalli area in Kayalpattinam Municipality. Thiru. Mohammed Salihu (applicant) in his affidavit has stated as follows:

- Illegal dumping of waste by Kayalpattinam Municipality in and around S.No. 43/1, Kayalpattinam Municipality South Village at Papparapalli in Kayalpattinam Municipal area for the past 40 years, due to which there is significant impact on the environment and on the people in the vicinity. The area is surrounded by residences, municipal slaughter house, TNEB substation etc.,
- The dumping of wastes was stopped at the site since, 2016.
- During rains leachate from the waste flows on to the roads and to the surrounding causing severe nuisance and pollution.
- The waste is also set to fire occasionally causing severe air pollution.
- An exhaustive study has to be conducted to assess the extent of contamination of soil, water etc., by a competent 3rd party and necessary remediation plan has to be evolved and implemented,

For the above said reasons the applicant has prayed the Hon'ble NGT to direct the respondent municipality to remediate the existing legacy waste dumpsite and to direct the municipality to pay environmental compensation.

The Hon'ble NGT (SZ) in its order dated 19.01.2021 in O.A. No. 11 of 2021 directed the same committee constituted in O.A. No. 50 of 2016 ***"to ascertain the nature of dumps, the quantity of legacy waste lying there, step taken by the municipality for the disposal of the legacy waste, damage if any, caused to the environment including soil and ground water, on account of the untreated legacy waste being kept there for long time and if there is any contamination caused to the soil as well as ground water on account of leachate, the remedial measures to be taken for rectifying the same and also to prepare an action plan for disposal of the legacy waste within shorter time frame, so as to redress the grievance permanently"***.

In compliance to the above order of the Hon'ble NGT(SZ), the Joint Committee inspected the dumpsite located at S.No. 43/1, Kayalpattinam South Village at Papparapalli in Kayalpattinam Municipality on 30/07/2021 and submitted an interim report to the Hon'ble NGT. Again, the Joint Committee inspected the dumpsite on 04/03/2022 and the following final report is submitted:

- *The dumpsite was found to be measuring 1.82 acres. The land is owned by Revenue Department.*
- *No fresh municipal solid waste was found at the dumpsite and the municipal solid waste at the dump site was found to be bio-minable waste/legacy waste.*
- *The total quantity of the accumulated legacy waste at the dump site was reported to be about 19960 m<sup>3</sup> by volume as per the revised estimate.*
- *The dumping of waste was reported to have been stopped at the site by the Municipality since 2016.*
- *Residential houses were found to be located at a distance of about 65 meters away from the dumpsite and the Municipality slaughter house is located adjacent to the dumpsite. Also, the TNEB sub station was found to be located at a distance of about 75 meters away from the dump site.*
- *Kayalpattinam to Arumuganeri LF road is located adjacent to the unit.*
- *The dumpsite is located outside the CRZ area.*
- *During inspection the waste in the dump site was not found to be in burnt condition.*
- *The Municipality submitted proposal for Bio-mining of this dump site (at an estimated Project cost of Rs. 160 lakhs) to the Director of Municipal Administration, Chennai through the Regional Director of Municipal Administration-Tirunelveli vide RC No. 1469/2018A2 Dt. 24/08/2021 and the proposal is yet to be approved.*

It is submitted that in order to assess the extent of damage caused to the ground water at the dump site, ground water samples 4- Nos have been collected from the wells located near the dump site on 30.07.2021 and sent for analysis at the TNPCBd lab. The Report of Analysis of the water samples is enclosed herewith.

- *During inspection it was noticed that ground water was available in the area surrounding the dumpsite at a depth of about 10 feet depth below ground level. Also, the Report of analysis of the above water samples shows the presence of high TDS, Chlorides and sulphates in the water samples which may be due to the sea water intrusion. The presence of high TDS, Chlorides and sulphates in the water samples shows that the ground water is already unfit for drinking purpose owing to the sea water intrusion.*

*It is submitted that the extent of damage caused to the soil at the dump site can be assessed by analysing the soil sample at the dump site only after the bio-mining of the dumpsite is completed.*

**It is submitted that already the Tamil Nadu Pollution Control Board (TNPCB) vide Proceedings No. TNPCB/ LAW / LAIII / NGT / 007187 / 2016 dt.18.11.2020 issued directions imposing Rs. 14 lakhs as interim Environmental Compensation to the Municipality for the period from April 2020 to October 2020 (Rs. 1 lakh/month) for non-compliance of the Municipal Solid waste Management Rules and for not commencing the work of legacy waste remediation process and the Municipality is liable to remit the Environmental compensation till the compliance of the directions issued by TNPCBd. Further, it is submitted that the Municipality has not yet remitted the interim Environmental Compensation imposed by TNPCB and also not yet started the Bio-mining works as directed by TNPCB.**

**III. Final report of the Joint Committee in O.A. No. 12 of 2021 (SZ) (Mass Empowerment and Guidance Association vs The Kayalpattinam Municipality and others)**

Thiru. Mohammed Salihu, Secretary of Mass Empoerment and Guidance Association, Kayalpattinam has filed this O.A. No. 12 of 2021 against the Commissioner, Kayalpattinam Municipality, Thoothukudi District; The District Collector, Thoothukudi/Chairman DCZMA, Thoothukudi; The District Environmental Engineer, TN Pollution Control Board, Thoothukudi and TN State Coastal Zone Management Authority represented by its Director, Department of Environment, Chennai regarding the micro compost yard constructed by the Kayalpattinam Municipality illegally. Thiru. Mohammed Salihu (applicant) in his affidavit has stated as follows:

- The Kayalpattinam Municipality has constructed a structure to function as micro compost yard inside the inter tidal Zone of the CRZ in beach poramboke land partially blocking a natural drainage outlet into sea called the keerikulam.
- The waste disposal (or) processing facilities cannot be setup inside the CRZ area as they are prohibited under the CRZ notification 2011.

Hence, the applicant prayed the Hon'ble NGT to issue direction to forthwith demolish this illegal structure.

The Hon'ble NGT (SZ) in its order dated. 19.01.2021 in O.A. No. 12 of 2021 has directed the same committee that has been constituted in O.A. No. 50 of 2016 to inspect the area and to submit a factual as well as action taken report if there is any violation found, and submit the consolidated report in O.A. No. 50 of 2016 instead of filling independent reports, so that all these connected issues can

be considered together and appropriate directions can be issued and dispose of the causes by a common judgement.

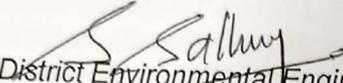
The Hon'ble NGT(SZ) also directed the committee to consider the question of violation of CRZ Notification in respect of establishment of micro compost yard in the allotted place by the first respondent municipality and if there is any violation found, what is the nature of action taken by the authorities in respect of the same and to submit the report to the Hon'ble Tribunal along with O.A. No. 50 of 2016.

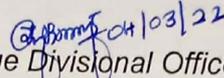
In compliance to the above order of the Hon'ble NGT(SZ), the Joint Committee inspected the *micro compost yard (on-site compost centre)* on 30/07/2021 and submitted an interim report to the Hon'ble NGT. Again, the Joint Committee inspected the dumpsite on 04/03/2022 and the following final report is submitted:

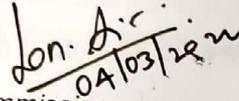
- The *micro compost yard (on-site compost centre)* is located in the un-surveyed poramboke land near the sea shore.
- The processing capacity of the *micro compost yard (on-site compost centre)* is 0.50 MT/day.
- The *micro compost yard (on-site compost centre)* is reported to have been established exclusively to process the municipal solid wastes generated in the beach area.
- The *micro compost yard (on-site compost centre)* has been constructed during the year 2018 at a cost of Rs. 7 lakhs and is yet to be commissioned/yet to be put into operation.
- The *micro compost yard (on-site compost centre)* consists of a shed with aluminium sheet roof and is measuring 15 meters x 6 meters in size. However, during inspection on 04/03/2022 it was noticed that the Municipality has removed the aluminium sheet roof from this shed on 28/02/2022. Photographs showing the view of this *micro compost yard/shed taken before and after the removal* of aluminium sheet roof is enclosed herewith.
- The *micro compost yard (on-site compost centre)* is located within CRZ area. The exact location of the *micro compost yard (on-site compost centre)* within the CRZ area (as to whether the site is located in between HTL and LTL or is located outside the HTL) can be identified/known only if the Project layout is super imposed on the CRZ map indicating HTL and LTL demarcated by one of the Authorized agency in 1:4000 scale.
- The Municipality has submitted the application for CRZ clearance for this *micro compost yard (on-site compost centre)* on 29.07.2021. The application submitted by the Municipality was returned for want of the following additional particulars:
  - a) Application in the prescribed format (Form I) – 8 copies.
  - b) CRZ map indicating HTL and LTL demarcated by one of the Authorized agency in 1:4000 scale – 8 copies.

- c) Project layout super imposed on the above map indicated at (b) above – 8 copies.  
d) Copy of Project report – 8 copies.

The Municipality is yet to resubmit the application along with the additional particulars. On receipt of the additional particulars and the application the subject will be placed before the District Coastal Zone Management Authority meeting and decision will be taken on the further course of action.

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

  
Revenue Divisional Officer,  
Tiruchendur.

  
Commissioner,  
Kayalpattinam Municipality,  
Kayalpattinam



TAMIL NADU POLLUTION CONTROL BOARD

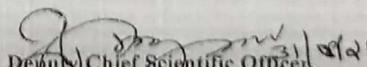
District Environmental Laboratory, Thoothukudi.

REPORT OF ANALYSIS

Report No. 82/DEL/TNPCB/TUT/2021/dt. 28.08.2021.

1. DEE Code No : AE/07/96, AE/07/97, AE/07/98 & AE/07/99.
2. Lab Code No : 265, 266, 267 & 268.
3. Date and Time of sample collection : 30.07.2021 - 02.00P.M to 05.00 P.M.
4. Date and time of sample receipt : 30.07.2021 - 07.00 P.M.
5. Point of Collection :  
AE/07/96 : M/s. Kayalpattinam Slaughter House papparapalli.  
AE/07/97 : Open well substation(TNEB), Papparapalli,  
AE/07/98 : S.R Agencies, Rattinagiri Main Road, Papparapalli,  
AE/07/99 : Thiru. Appukutti House, Esakkiamman Kovil street.  
Ayyakutti
6. Report of analysis of : Open wells.

S. No	Parameter	Units	Lab Code 265	Lab Code 266	Lab Code 267	Lab Code 268
			DEE Code AE/07/96	DEE Code AE/07/97	DEE Code AE/07/98	DEE Code AE/07/99
1.	Colour and appearance		Mild Yellow turbid odourless	Colourless turbid odourless	Colourless turbid odourless	Colourless turbid odourless
2.	PH		7.68	8.12	8.37	7.71
3.	Total Suspended Solids	( mg/l)	14	18	6	4
4.	Total dissolved Solids	(mg/l)	8302	8680	4586	534
5.	Chlorides	(mg/l)	3699	3499	1712	150
6.	Sulphate	(mg/l)	1212	1502	519	67
7.	Oil & Grease	(mg/l)	1.6	2.0	<1.0	<1.0
8.	BOD	(mg/l)	3.14	3.42	2.0	2.60
9.	COD	(mg/l)	80	112	40	48
10.	Dissolved Phosphate	(mg/l)	0.03	0.04	0.10	0.05
11.	Fluoride	(mg/l)	0.88	1.20	1.08	0.83
12.	Total Hardness	(mg/l)	1660	1280	740	200
13.	Calcium	(mg/l)	58	72	56	40
14.	Magnesium	(mg/l)	368	267	145	24
15.	Total Iron	(mg/l)	0.06	0.20	0.01	0.99
16.	Total Chromium	(mg/l)	<0.001	<0.001	<0.001	<0.001
17.	Copper	(mg/l)	<0.001	<0.001	0.015	0.015
18.	Lead	(mg/l)	0.038	0.069	0.017	0.027
19.	Zinc	(mg/l)	0.193	0.370	0.200	0.334
20.	Cadmium	(mg/l)	0.004	0.003	0.003	0.004
21.	Nickel	(mg/l)	0.122	0.130	0.134	0.134

  
Deputy Chief Scientific Officer,  
District Environmental Laboratory,  
Tamil Nadu Pollution Control Board,  
Thoothukudi -8.  
A. S. / 31.8.21

**Kayalpattinam Municipality “Onsite Compost Centre” (OCC) located near  
Kayalpattinam Beach**

1. Photograph showing shed provided for “Onsite Compost Centre”. (Photo taken on 26.02.2022)



2. Photograph showing the removal of “Onsite Compost Centre” Shed. (Photo taken on 04.03.2022)

