

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
(SOUTHERN ZONE), CHENNAI**

ORIGINAL APPLICATION NO.: 257 OF 2020

IN THE MATTER OF

Tribunal on its own motion Suo Motu based
on the news item in the New Indian Express
dt.27.11.2020, "A Coom in the making in
Karur?"

.... Applicant(S)

Versus

The Chief Secretary to Government of Tamil
Nadu, Chennai and Others

.... Respondent(S)

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Place: Chennai

Date.: 17.08.2021



H.D. Varalaxmi

DEPONENT

H.D. Varalaxmi
Regional Director
Central Pollution Control Board
Regional Directorate, Chennai

Compliance Report by Joint Committee in compliance with the Order dated 25.05.2021 & 28.06.21 of Hon'ble NGT (SZ), Chennai in the O.A. No.257 of 2020 (SZ) in the matter of Tribunal on its own motion Suo Motu based on news item in The New Indian Express Newspaper dated 27.11.2020, "A Cooum in the making in Karur?" Vs The Chief Secretary to Government of Tamilnadu & others.

**Compliance Report by Joint Committee in
compliance with the Order dated 25.05.2021 &
28.06.21 of Hon'ble NGT (SZ), Chennai in the O.A.
No.257 of 2020 (SZ) in the matter of Tribunal on its
own motion Suo Motu based on news item in The
New Indian Express Newspaper dated 27.11.2020,
“A Coom in the making in Karur?” Vs The Chief
Secretary & others.**

In compliance with the orders dated 22.02.2021 & 12.04.2021 of the Hon'ble National Green Tribunal, (Southern Zone) in the O.A. No.257 of 2020 in the matter of Tribunal on its own motion Suo Motu based on news item in The New Indian Express Newspaper dated 27.11.2020, “A Coom in the making in Karur?” Vs The Chief Secretary & Others., the Joint Committee has e-filed the report dt. 20.05.2021 before the Hon'ble National Green Tribunal, Southern Bench, Chennai.

The matter came up for hearing on 25th May, 2021 through video conference and subsequently, Hon'ble National Green Tribunal (Southern Zone) has issued the following directions vide Order dated 25.05.2021 and subsequently on 28.06.2021:

7. It is seen from the reports submitted by the Joint Committee as well as the Pollution Control Board that no industrial effluent is being discharged into the Amaravathy River and water quality in the river meets the inland surface water quality and most of the pollution that is being caused on account of the untreated sewage being discharged into the river.

8. As regards the implementation of the Solid Waste Management Rules, 2016, it was revealed from the earlier report submitted by the Karur Municipality that they have started the bio-mining process for disposal of the existing legacy waste and 80% of the legacy waste was disposed of. But they have not mentioned anything about the present status and they have also not filed any report regarding the gaps found by this Tribunal in the earlier report submitted by the Karur Municipality. Further, it appears from the report that water samples were taken from the nearby areas of the industry alone and not from the areas that has been pointed out in the newspaper report.

9. It is also mentioned in the newspaper report that the people in the locality had stopped the earth mover which was digging the channel inside the river to channel waste water from the nearby industries and in spite of the opposition, the digging resumed. Neither the Karur Municipality nor the Public Works Department (PWD) officials had looked into the matter and submitted any report regarding the allegations made in the newspaper report in this regard.

The committee that has been appointed by this Tribunal also did not go into the question as to whether any internal illegal channels have been provided from any of the industries to discharge their sewage into the river without treating the same. So under such circumstances, we feel it appropriate to direct the Tamil Nadu Pollution Control Board and the committee to consider these aspects as well and submit a detailed report regarding the specific allegations made of making illegal channels from the nearby industries for discharging their sewage or other industrial effluents illegally at the place pointed out in the newspaper report.

11. They are also directed to ascertain the location of the area which is covered by the photograph mentioned in the newspaper report and ascertain as to whether allegations made by them in this regard are

correct or not and if it is correct, what is the nature of action taken by the authority to prevent such illegal activities.

12. The Public Works Department (PWD) is also directed to file an independent report regarding the mechanism provided by them to protect Amaravathy River from pollution and encroachment. The Karur Municipality is also directed to submit a detailed report regarding the steps taken by them for implementing the recommendations made by the committee to be carried out from their side to avoid discharge of untreated sewage from Ward No.33 to 48 which were subsequently included in their municipality in respect of which no sewage treatment facilities have been provided.

13. The committee as well as the concerned departments are also directed to file their independent statement and also the compliance report as directed by this Tribunal on or before 28.06.2021 by e-filing in the form of Searchable PDF/OCR Supportable PDF and not in the form of Image PDF along with necessary hardcopies to be produced as per Rules.

And subsequently vide Order dated 28.06.2021

4. It may be mentioned here that the only question for consideration is whether recommendations and gap found by the committee, implementation of the recommendation to rectify the same by the respective departments and that will have to be ascertained by the Joint Committee. If some of the members are not available due to illness or other reasons they can depute some other officer in their place for that purpose and then collect the data and submit the report. The Tamil Nadu Pollution Control Board has not come up with any independent report as directed. So under such circumstances, we feel some more time can be granted to the Joint committee as well respondents to submit their respective reports as directed in earlier Orders. The 8th respondents are also directed to submit the further progress report to this Tribunal on or

before 18.08.2021 by e-filing in the form of Searchable PDF/OCR Supportable pdf and not in the form of image pdf along with necessary hardcopies to be produced as per Rules.

The copy of the said Orders is submitted at Annexure – 1 & Annexure - 2.

2.0 Meeting of Joint Committee:

In pursuance to the above directions of Hon'ble Green Tribunal, Southern Bench, Chennai, the Joint Committee had its meeting on 12th July, 2021 through VC and deliberated the issues in line with the Order. During the VC, all the members of the joint committee have mutually agreed to carry out the field visit on 23rd July, 2021.

As mutually agreed upon in the VC, all the members of the joint committee had attended the meeting at the chamber of District Revenue Officer, Karur on 23rd July, 2021 at 1030 AM and deliberated the issues, pointwise in line with the Order of Hon'ble Green Tribunal and finalised the field visit accordingly.

3.0 Joint inspection of the Committee:

After the meeting, the joint committee first visited the Brahmaatheertham padikattu thurai, near Vanchaleeswarar Temple and re inspected the spot mentioned in the newspaper report and found that the raw/untreated sewage from nearby residential areas particularly Andankoil East Panchayat and AVS – AVR Colony area are discharged into the River Amaravathy. The untreated sewage is not getting mixed with the river water, however, it is stagnated on the side of riverbed in a pool of about 100ft wide. One sample of waste water has been collected from river bed at the place that has been pointed out in the newspaper report and sent for analysis. The analytical test report of the same is submitted at Annexure - 3. Last time, the samples were collected from the discharges (Municipal drain) directly from Periyar Nagar, Periandan Koil (Andankoil East Panchayat) and AVS-AVR Colony just before discharge into the river, whereas

this time, the wastewater sample was collected from river bed after discharged into the river. On upstream of the place that has been pointed out in the newspaper report, the river shifts its flow from Left bank to Right bank, on its own natural course of the flow. The analytical test results of wastewater samples collected from the riverbed is given below:

Analytical Test Results of wastewater samples from riverbed collected from the place that is pointed out in the newspaper report

S.No.	Parameters	Test Results	Standards for the discharge of treated sewage	Compliance status
1.	pH	7.36	6.5 – 9.0	Complied with
2.	Total Suspended Solids	16	100	
3.	BOD 3 days at 27°C	88	30	Not complied with
4.	Total Dissolved Solids	1084	NN	NA
5.	Chemical Oxygen Demand	304	NN	NA
6.	Dissolved Oxygen	1.1	NN	NA
7.	Ammonical Nitrogen	25.2	NN	NA
8.	Total Nitrogen	0.2	NN	NA
9.	Residual Sodium Carbonate (RSC)	-Ve	NN	NA
10.	Sodium Absorption Ratio (SAR)	7.15	NN	NA
11.	Fecal Coliform MPN/100 ml	Analysis not carried out since facility is not available	< 1000	NA

Note.: All values are in mg/l except pH, RSC & SAR. NN – Not notified. NA – Not applicable

The test results of the wastewater collected from the river stretch has been compared with the Standards of treated sewage for discharge since the sample is a mixture of wastewater and untreated sewage.

The BOD & COD value of the sample indicates considerable Organic load. The TDS value of 1084, which is higher than that of surface water and more or less equal to that of groundwater. During the field visit, it was observed that the wastewater was grey in colour with black tinge. Thus, the results indicate that the water may be the mixture of wastewater and untreated sewage from nearby areas.

The joint committee found that two industries are located near to the place pointed out in the newspaper report and on the left bank of the river. The unit named “M/s. Jose Colours” is not in continuous operation for the past three months due to COVID-19 lock down. Direction for closure of the unit and disconnection of power supply has been issued to another unit “M/s. Asi Colours” by TNPCB, on account of the shortfalls observed by the Committee constituted by TNPCB in compliance with the Order dated 25th May, 2021 of Hon’ble NGT, Southern Bench, Chennai. Inspection Report of both the units is submitted at Annexure – A4 & A5. Copy of the Closure Order is submitted at Annexure – A6 & A7. The units are under surveillance of TNPCB.

The joint Committee inspected the STP located at Village Panchamadevi and found that the STP was in operation. Three samples were collected from STP and sent for analysis. One sample of Inlet and outlet has been collected. Sample from aeration tank was collected for DO & MLSS. The Analytical Test Report is submitted at Annexure - 8. The test results are submitted below:

Analytical Test Results of samples collected from STP

S.No.	Parameters	Inlet to STP	STP Outlet	Standards for the discharge of treated sewage	Compliance status
1.	pH	7.33	7.56	6.5 – 9.0	CW
2.	Total Suspended Solids	52	16	100	CW
3.	BOD 3 days at 27°C	236	95	30	Not CW
4.	Chemical Oxygen Demand	544	232	NN	NA
5.	Ammonical Nitrogen	30.8	19.6	NN	NA
6.	Total Nitrogen	0.5	0.29	NN	NA
7.	Residual Sodium Carbonate (RSC)	-Ve	-Ve	NN	NA
8.	Sodium Absorption Ratio (SAR)	7.67	6.92	NN	NA
9.	Fecal Coliform MPN/100 ml	Not carried out since facility is not available		< 1000	NA
10.	Aeration tank – Dissolved Oxygen – 1.3				

All values are in mg/l except pH, RSC, SAR & Fecal Coliform. NN – Not notified. CW – Complied with.

Results indicate that STP failed to comply with prescribed standards with respect to primary parameter that is BOD. It was found that pH and TSS were complying with the Standards, whereas reduction in BOD observed at only 60%. To improve the BOD removal, the level of DO, MLSS and FM ratio shall be maintained as per the design of STP. Therefore, further improvement is required

to comply with the Standards as well as to achieve the BOD level of 20mg/l as per the design.

4.0 Pointwise compliance report of Joint Committee:

4.1 Water samples were taken from the nearby areas of the industry alone and not from the areas that has been pointed out in the newspaper report.

The joint Committee had found that drain carrying the untreated sewage, from nearby residential areas particularly Andankoil East Panchayat and AVS-AVR colony area are discharged into River Amaravathy, at the place that has been pointed out in the newspaper report. The untreated waste water was found stagnated on the banks at stretch of about 100 feet. Since it is stagnated one, the committee avoided the sampling of waste water from the river bed earlier, thinking that it will misguide. It was therefore decided to collect sewage samples from the drain directly in order to get the represented one. This time the Committee collected the sample from the river bed itself at the place that has been point out in the newspaper report. Analytical Test report is submitted at annexure – 3. The results are discussed at the Chapter – 3.

4.2 Whether any internal illegal channels have been provided from any of the industries to discharge their sewage into the river without treating the same.

The joint committee did not find any illegal channels provided by the industry to discharge their sewage into the river without treating the same.

4.3 Specific allegations made of making illegal channels from the nearby industries for discharging their sewage or other industrial effluents illegally at the place pointed out in the newspaper report.

The Joint committee did not find any illegal channels made by nearby industries to discharge their sewage or other industrial effluents illegally at the place

pointed out in the newspaper report. Two industries are located near to the place pointed out in the newspaper report and on the left bank of the river. One unit “M/s. Jose Colours” is not in operation for the past three months due to COVID-19. Direction for closure of the unit and disconnection of power supply has been issued to another unit “M/s. Asi Colours” by TNPCB, on account of the shortfalls observed by the Committee constituted by TNPCB in compliance with the Order dated 25th May, 2021 of Hon’ble NGT, Southern Bench, Chennai. Inspection Report of both the units is submitted at Annexure – A4 & A5. Closure Order is submitted at Annexure – A6 and power disconnection Order is submitted at Annexure – A7.

4.4 Ascertain the location of the area which is covered by the photograph mentioned in the newspaper report and ascertain as to whether allegations made by them in this regard are correct or not and if it is correct, what is the nature of action taken by the authority to prevent such illegal activities.

The location of the area which is covered by the photograph mentioned in the newspaper report is around 100 meters away from the Brahmaatheertham padikattu thurai, near Sri Vanchaleeswarar Temple and on upstream of the river (On western direction).

The river changes its own course of flow from left bank to right bank at the upstream of the place pointed out in the newspaper report. The temple trust has planned and made a channel along the left bank in order to divert the part of river water to Padikattu thurai for the ceremony related to Kumbhabhishekham festival at Sri Vanchaleeswarar temple and the convenience of devotees. PWD has inspected the spot, enquired the same and issued a show cause notice to the Trust, when the matter came to their knowledge. Copy of the Show Cause Notice is placed at A9. The channel was not made by ULB, PWD or any other industry for discharge of their effluents.

On seeing the JCB digging the channel in the river, local people had started objecting it and agitated. When they came to know that the work was being carried out by the Temple Authority for the purpose of temple festival, they stopped the agitation.

4.5 Whether recommendations and gap found by the Committee, implementation of the recommendation to rectify the same by the respective departments and that will have to be ascertained by the Joint Committee

On interaction with the Karur Municipality, they have accepted the recommendations of the Joint Committee and just initiated the steps in line with the recommendations. At this stage, the joint committee find difficulties in analysing the gaps and ascertain the following facts:

4.5.1 Compliance status of Sewage management:

Detailed Project Report (DPR) for rejuvenation of the Sewage Treatment Plant (STP) at an estimate of 7.5 crores is under process by Public Works Department(PWD), Water Resources Department (WRD), Project formulation division, Trichy.

In order to prevent the untreated sewage being discharged into River Amaravathy from the leftover areas of Karur, Imam Karur and Thanthoni & Sanapiratty, where UGSS scheme is feasible, work for underground sewerage line, collection well with mechanical pumping to existing STP at four places is under process. For which Karur Municipality has received the letter for joint inspection from WRD, FMP has been collected from Revenue department and joint inspection has to be carried out along with Revenue Department. Where ever UGSS scheme is not feasible, Decentralized Wastewater Treatment System at five places is proposed and the work is in progress.

From the Test Report of STP, it is observed that there is some improvement of DO, MLSS and BOD reduction. Still further improvement is required in maintaining the DO, MLSS and FM ratio so as to achieve the designed BOD value of 20 mg/l and further comply with the Standards.

4.5.2 Compliance report of Solid waste management:

S.No.	Gaps observed by the joint committee	Compliance status
1.	Mixing of bulk agent with shredded wet waste at Micro Compost Centre.	Complied with
2.	Rotary screen to screen the Compost and partially composted materials at Micro Compost Centre.	Provided
3.	Using partially composted materials as bulk agent at Micro Compost Centre.	Instructions have been issued
4.	Hard surface pad to dry the compost	Tender process is going on
5.	Provision for storing compost	Places are identified and earmarked
6.	Maintenance of stock register for Compost	Started Maintaining

4.5.3 Compliance status of Bio-Methanation Plant:

S.No.	Gaps observed by the joint committee	Compliance status
1.	Leak in rubber gas bladder	Leak in the bladder has been arrested
2.	Gas Holder	It is proposed to install a gas holder made of Poly Urethane.

4.5.4 Compliance status of Legacy Waste:

S.No.	Gaps observed by the joint committee	Compliance status
1.	Bio-mining of Legacy waste at Eastern yard	A quantity of 1,41,731 cubic meters of Legacy waste has been processed fully.
2.	Co-processing of RDF	Forwarded the RDF for co-processing and thus completed the Bio-mining of Legacy waste at Eastern Yard
3.	Bio-mining of Legacy waste at Western yard	Out of 65,000 Cubic meters legacy waste, one third quantity is bio-mined and the bio-mining process is going on.

4.5.5 Protection measures to be provided by PWD-WRD:

The following measures are proposed by PWD-WRD to protect the River Amaravathy in compliance with the Hon'ble NGT Order:

- ❖ Based on the request by Karur Municipality for allotment of land adjacent to River Amaravathy to establish STP, the department has identified the same and communicated to the ULB. Accordingly, FMP of the area has been collected by ULB from Revenue Department. These identified lands should be inspected jointly by ULB, PWD and Revenue Department. For which a letter has been sent to Revenue Department by the Assistant Executive Engineer, PWD, Amaravathy Basin Sub Division No.:4 WRD, Karur. After the joint inspection, proposal will be submitted in accordance with the Rules in force for transfer of land to ULB.
- ❖ Whenever reports of encroachments are received or observed during inspection, immediate notices are being issued to the encroacher concerned to evict the same. Eviction is carried out in co-ordination with Revenue and Police Department, if necessary.

- ❖ WRD is planning an approach road along the River Amaravathy on both the sides from Chettipalayam to Karur town limit for regular patrolling and to have a quick access to the river for emergency response. For which, a field study is proposed.
- ❖ Here, the joint Committee recommends, a green belt of Miyawaki forest in strip type of suitable width as feasible along the River Amaravathy on both the sides in between river bank in full level and approach road for a wide range of benefits.

By considering all the above facts, the Hon'ble Tribunal may pass appropriate Orders(s)/Directions(s) as deemed fit in this case.

S. Karthikeyan
Scientist C
Central Pollution Control Board
Regional Directorate, Chennai

District Environmental Engineer
Tamilnadu Pollution Control Board
District Environmental Office
Karur

Shri. I. Nakkiran
Municipal Engineer, Karur

P. Muthusamy
Superintending Engineer
PWD, WRD, Palani

District Revenue Officer
Karur

Item No.3:

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

Original Application No. 257 of 2020 (SZ)

(Through Video Conference)

IN THE MATTER OF

Tribunal on its own motion

Suo Motu based on the news item in

The New Indian Express Newspaper dated 27.11.2020,

“A Coom in the making in Karur?”

...Applicant(s)

Versus

The Chief Secretary to Govt. of Tamil Nadu,
Govt. Secretariat, Fort St. George,
Chennai and Ors.

....Respondent(s)

Date of hearing: 25.05.2021.

CORAM:

HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER

HON'BLE MR. Dr. K. SATYAGOPAL, EXPERT MEMBER

For Applicant(s):

Suo Motu by Court.

For Respondent(s):

Mr. C. Kasirajan through

Ms. D. Ashwini for R6.

Mrs. P. Jayalakshmi for CPCB.

ORDER

1. The above case has been Suo Motu registered by this Tribunal on the basis of the newspaper report published in The New Indian Express, dated 27.11.2020 under the caption “*A Cooum in the making in Karur?*” It is alleged in the newspaper report that the dyeing units and industries in Karur are polluting the Amaravathi River to such an extent that it could soon become a second Cooum in the State. So, this Tribunal admitted the matter and appointed a Joint Committee to go into the question and directed them to submit a report and this case was originally posted to 22.02.2021 for that purpose. Thereafter, the matter has been adjourned from time to time at the request of the committee members.
2. Thereafter, on 12.04.2021, this Tribunal had considered the statement submitted by the Commissioner, Karur Municipality in the form of report wherein, they have admitted that there is lack of facilities available for treating the sewage that is being generated in Ward No.33 to 48 of that municipality and though requests have been made to the Public Works Department (PWD) for allotting certain areas for establishment of Sewage Treatment Plant (STP), no reply has been received from them.
3. This Tribunal also considered the gist of the report regarding the implementation of the Solid Waste Management Rules, 2016 wherein, they have stated that they commenced the bio-mining process on

22.02.2020 and they have almost completed 80% of the disposal of the accumulated waste and they are also having a Sewage Treatment Plant with capacity of 15 MLD but they are getting sewage for treatment to the extent of 6.5 MLD which is being used for collecting and treating the sewage generated from the Ward No.1 to 32 in that municipality. But they have not mentioned anything about the arrangements made by them in respect of Ward No.33 to 48 which were earlier part of two independent local bodies but later merged with the Karur Municipality as early as on 2011. They have not mentioned as to whether any steps had taken by them to have the Under Ground Sewage Facility in these wards to connect the sewage water to the existing Sewage Treatment Plant, so that it can be used at its optimum level which will to some extent resolve the issue and the committee as well as the concerned departments were also directed to submit independent reports regarding the steps taken from their side to protect the Amaravathi River from pollution and posted the case to today for that purpose.

4. When the matter came up for hearing today through Video Conference, Mr. C. Kasirajan through Ms. D. Ashwini represented 6th respondent and Mrs. P. Jayalakshmi represented the Central Pollution Control Board (CPCB) who is one of the member of the joint committee.

5. The 6th respondent/ Tamil Nadu Pollution Control Board had submitted a report signed on 22.04.2021 e-filed on 26.04.2021 and received on 28.04.2021 which reads as follows:-

“Report on behalf of the 6th Respondent/ Tamil Nadu Pollution Control Board

I, S. Ragupathi, Son of Thiru. R. Sangam, Hindu, aged about 54 years, having office at No.76, Mount Salai, Guindy, Chennai – 600 032, do hereby solemnly affirm and sincerely state as follows:-

1. I am the Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board, Chennai – 32 and I am filing this reply affidavit on behalf of the 6th respondent board and as such I am well acquainted with the facts of the case from the records.

2. It is respectfully submitted the Hon’ble NGT has passed order dated 15.12.2020 and directed as follows:-

“Para 8 to appoint a joint committee comprising of 1) the District Collector, Karur District, or a Senior Officer not below the rank of Assistant Collector or Sub Divisional Magistrate deputed by the District Collector, 2) a Senior Scientist from Central Pollution Control Board (CPCB), Regional Office, Chennai, (3) a Senior Officer from the Tamil Nadu State Pollution Control Board as designated by its Chairman, 4) a Senior Officer not below the rank of Superintending Engineer of Public Works Department and Water Resources Organisation (WRO) of that area, (5) the Municipal Commissioner, Karur Municipality to inspect the area in question and submit a factual as well as action taken report, if there is any violation found, including assessment of environmental compensation for damage caused on account of any alleged illegal activity resulting in pollution to the water in the river Amaravathy.

Para 11 The committee is also directed to ascertain the existence and functioning of any Effluent Treatment Plant (ETP), Sewage Treatment Plant (STP) and requirement of a Common Effluent Treatment Plant (CETPs) in that area and its operation level as to whether it meets all the norms by testing the inlets and

outlets of the effluents being treated by these units and if there is any violation found, what is the action proposed to be taken against such units.

The Central Pollution Control Board (CPCB), Regional Office, Chennai will be the nodal agency for co-ordination and for providing all necessary logistics for this purpose.”

Status of Dyeing units in Karur

3. *It is respectfully submitted that in the year 2011, there were 487 textile processing units functioning in and around Karur Town. Out of these, 391 units were members of 8 Nos. of Common Effluent Treatment Plants and balance units (96) were running with Individual Effluent Treatment Plants. The treated effluents from these units were discharged either directly or indirectly into irrigation canals of River Amaravathi. However, the dyeing industries with the available treatment technology at that time could not achieve the standards prescribed by the TNPC Board.*

4. *It is respectfully submitted that, an Writ Petition No.24650 of 2003 filed by an agriculture association, the Hon'ble High Court of Madras directed the TNPC Board to issue closure direction to of all the dyeing units which have not provided zero liquid discharge plants vide its order dt. 16.09.2009. Accordingly all the 487 units and 8 CETPs operating in the year 2012 as the units have not provided ZLD plants.*

Then, the units have started to provide ZLD plants and at present 68 dyeing and bleaching units have provided zero liquid discharge system comprising of Effluent Treatment Plant, R.O. plant and Reject management system and started operating with valid consents of the Board.

Out of the 68 units, 46 are textile dyeing units and 22 are textile bleaching units. Out of the 68 units two units are large scale, two units are medium scale and 64 units are small scale units. Out of the 68 units only 28 units are machine process and the rest of 40 units are small scale had dyeing and bleaching process. Out of 68 units only 22 units are generating 100 KLD and above trade effluent quantity and the rest of 46 units are generating less than 100 KLD trade effluent.

Regarding the location details of the units from River Amaravathy three units are located within 100 m, 29 units from 100 m to 1 Km, 32 units from 1 Km to 5 Km and 3 units 5 Km away from the river. Out of the 68 units only 55 units are in operation and seven units are not in operation for the past one year and six units are given direction of closure by TNPCB.

Status of Sewage from Karur Municipality:

5. It is respectfully submitted that, the Karur Municipality have provided a Sewage Treatment Plant (STP) of 15 MLD capacity and part of the Municipal area (32 out of 48 wards) is connected with the STP through underground drainage system (UGDs). The treated sewage from the STP is discharged into nearby irrigation channel. The sewage from the balance area (16 wads) and the adjacent Andankoil Village Panchayat area in not connected with the system and the sewage is gaining access to the River Amaravathi through rain water odai.

The TNPC has directed the Karur Municipality to provide STP with UGDS covering the entire municipal area and to prevent the sewage gaining access into River Amaravathy.

The Hon'ble Madurai Bench of Madras High Court has also given direction in this regard to Karur Municipality in its order dt. 28.09.2016 in W.P. (MD) No.15295 of 2012.

6. It is respectfully submitted that the TNPCB is monitoring the ZLD plants, all units have installed flow meters at inlet and outlet of three stages of ZLD plants.

In large and medium size units the flow meters are connected with computer recording system and the same is connected with water quality watch centre at TNPCB head office, Chennai and 24 x 7 monitoring is ensured.

In small scale machine dyeing units computer recording system is ensured. To ascertain the performance of ZLD Plants samples are collected and analysed at each stage of ZLD Plant and the performance is studied.

The sludge of Effluent Treatment Plant and mixed salt of SEP/ATFD are disposed of cement industries and common disposal

facilities respectively. Manifest system for storage, transport and disposal is followed by these units.

The dyeing units in Karur are monitored by District Environmental Engineer, TNPCB, Karur and Environmental Engineer, Flying Squad, TNPCB, Erode.

Action against any operation of illegal units brought to the notice of the Board is taken through District Co-ordination Committee headed by District Collector. For the past two years power supply to nine units was disconnected and dyed material also seized.

Closure and disconnection of power supply order issued to consented six units based on the shortfall in operation and performance of ZLD plants.

Monthly samples are collected and analysed at the following locations:

Karur Municipality STP outlet which joins with Panchamadevi PWD irrigation channel.

Ground water sample at both banks of River Amaravathi.

River water samples at Thirumukkadalur 8 KM downstream side of Karur Town and the confluence point of River Amaravathi with River Cauvery.

7. It is further submitted that the Hon'ble Madurai Bench of Madras High Court has filed as Suo Motu W.P. (MD) No.17508 of 2020 based on the same news item published in the Indian Express newspaper on 27.11.2020 regarding pollution of river Amaravathy and it is stated in the news item, sewage and solid waste from Karur Municipal area is disposed into the River and illegal discharge from textile dyeing and bleaching units are also gaining access to the river and thereby polluting the river.

8. It is respectfully submitted that the Hon'ble Court in its order dated 09.12.2020 directed the TNPCB to collect water samples in Rettaivaikkal (abandoned PWD Channel) running within the Karur Town at five locations. The Hon'ble High Court also directed to collect and send counter samples to King Institute, Chennai.

9. It is respectfully submitted that, the District Environmental Engineer, Karur collected samples from the

following locations on 10.12.2020 between 11.20 A.M. and 03.20 P.M.:

(i) Rettaivaikkal at Chinnandankoil water tank road (Near Veema Engineering Works)

(ii) Rettaivaikkal at Pasupathi Layout (Near BSNL headquarters)

(iii) Rettaivaikkal at Walkers Club under light house bridge

(iv) Rettaivaikkal at small bridge adjacent to Kamaraj market

(v) Rettaivaikkal at Rathinam Salai nearby Neelimettu Street

(vi) Pancahmadevi Vaaikkaal adjacent to Murugan saw mill.

(vii) Mettuvaaikkal at Rayanur Road in front of Sri Lakshmi Agency Godown

One set of samples sent for Analysis to Tamil Nadu Pollution Control Board, Advanced Environmental Laboratory, Salem on 10.12.2020 at 07.00 PM. One set of Counter samples sent for analysis at Salim Ali Center for ornithology and natural history, Coimbatore on 10.12.2020 at 09.15 PM, since King Institute, Chennai is not accepting effluent samples for analysis.

The comparative statement of report of TNPCB and Salim Ali Centre is submitted herewith as Annexure.

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."

6. The Joint Committee also filed a report dated 20.05.2021 e-filed on 22.05.2021 and received on 24.05.2021 which reads as follows:

"1.0 Preamble:

A case has been registered by Hon'ble National Green Tribunal, Southern Zone, Chennai on its own motion-SUO MOTU based on the newspaper report published in the Indian Express

dated 27th November, 2020 under the caption “A Cooum in the making in Karur?” and an Order was passed on 15th December, 2020 stating that;

“... 8. In order to ascertain the genuineness of the allegations made in the paper report and action taken by the local body to resolve the issues, we feel it appropriate to appoint a joint committee comprising of 1) the District Collector, Karur District, or a Senior Officer not below the rank of Assistant Collector or Sub Divisional Magistrate deputed by the District Collector, 2) a Senior Scientist from Central Pollution Control Board (CPCB), Regional Office, Chennai, (3) a Senior Officer from the Tamil Nadu State Pollution Control Board as designated by its Chairman, 4) a Senior Officer not below the rank of Superintending Engineer of Public Works Department and Water Resources Organisation (WRO) of that area, (5) the Municipal Commissioner, Karur Municipality to inspect the area in question and submit a factual as well as action taken report, if there is any violation found, including assessment of environmental compensation for damage caused on account of any alleged illegal activity resulting in pollution to the water in the river Amaravathy.

9. The committee is directed to inspect the industries in that area and ascertain as to whether they are having proper effluent treatment discharge system and is there any illegal or unauthorised untreated discharge being made by any of the industries in that district to the Amaravathy river so as to cause the pollution of the river water

10. The committee is also directed as to ascertain as to whether there is any illegal discharge of untreated sewage from the municipal area to the river

11. The committee is also directed to ascertain the existence and functioning of any Effluent Treatment Plant (ETP), Sewage Treatment Plant (STP) and requirement of a Common Effluent Treatment Plant (CETPs) in that area and its operation level as to whether it meets all the norms by testing the inlets and outlets of the effluents being treated by these units and if there is any violation found, what is the action proposed to be taken against such units.

12. The committee is also directed to ascertain as to whether Karur Municipality is complying with the provisions of the Solid Waste Management Rules, 2016 in its letter and spirit in disposing the waste generated including the sewage and whether there is any illegal discharge of such things into the river which causes pollution and whether the direction issued by the Principal Bench of National Green Tribunal in O.A. No. 606 of 2018 have been complied with.

13. The committee is also directed to test the water quality of the river in respect of all criteria's including the presence of heavy metals, Total Coliform (TCL) and Faecal Coliform (FCL) apart from ascertaining the quality of water in the river and if there is any contamination found, ascertain the source and suggest the necessary steps to be taken for removing the contamination and make the water to the potable level.

14. The committee is also directed to suggest the proposed actions to be taken against the erring units and on that basis; the regulating authorities are directed to take steps against such units so as to prevent such illegal activities being continued in that area.

15. Central Pollution Control Board (CPCB), Regional Office, Chennai will be the nodal agency for co-ordination and for providing all necessary logistics for this purpose.

16. The committee is directed to submit the report to this Tribunal on or before 22.02.2021 by e-filing..."

A copy of the said Order is placed at Annexure – 1

Joint committee submitted to the Hon'ble tribunal stating that the inspection was carried out and water samples have been taken and requested six weeks time for submission of the final report.

Hon'ble tribunal has considered the request of the joint committee and further directed the committee to file the report on or before 12.04.2021. The copy of the said Order is placed at Annexure – 2. Joint Committee could not complete the report for want of additional information and requested for further four weeks time. Hon'ble tribunal directed the committee, District Administration and Karur Municipality to file the report on or before 25.05.2021. The copy of the said Order is placed at Annexure – 3.

2.0 Constitution of Joint Committee

In compliance with the above said Order and with the approval of Member Secretary, Central Pollution Control Board, Delhi; Regional Director, Chennai has constituted the Joint Committee (Copy of Constitution Order is enclosed as Annexure - 4) with the following members based on the nominations received from the respective Departments:

S. No	Name of Member & his designation	Organization	Contact details Mob no & email ID
1.	District Revenue Officer, Karur	District Collector, Karur	9445000918 & dro.tnkar@nic.in
2.	Shri.P. Muthusamy, Superintending Engineer, PWD, WRD, Palani	Chief Engineer, WRD, Coimbatore Region	9865227961 & sewropalani@gmail.com
3.	Shri. I. Nakkiran Municipal Engineer	The Commissioner, Karur Municipal Council, Karur	8489916703 & commr.karur@tn.gov.in
4..	Shri. K. Ravichandran, District Environmental Engineer, Karur District	Chairman, Tamilnadu Pollution Control Board, Chennai	8056042243 & tnpcbkarur@gmail.com
4.	Shri. S. Karthikeyan, Scientist C	Central Pollution Control Board, Regional Directorate, Chennai	9243424389 & skarthikeyan.cpcb@nic.in

3.0 Meetings of the Joint Committee:

In compliance to Hon'ble NGT Order dated 15.12.2020, CPCB as a Nodal Agency Organized a meeting on 3rd February, 2021 through video conference to discuss the Order issued by

Hon'ble NGT, deliberated the issues, and made a strategical plan to address the issues. All the members of the Joint Committee attended the meeting through video conference. The Committee has decided unanimously to carry out the area inspection of Karur town and joint monitoring of River Amaravathy, Discharges, ETP, CETP, STP, MSW treatment facilities and priority industries on river bed on 11th and 12th February, 2021 tentatively.

As decided by the joint committee in its meeting held on 3rd February, 2021, a joint committee meeting was convened by the District Revenue Officer, Karur on 11th February, 2021 at 10.30 AM at his Office. All the members of the Joint Committee attended the meeting in person and discussed the terms of reference of the Hon'ble NGT Order, finalized the river stretches to be surveyed to identify all the drains/discharges in the stretch, STP, ETPs, CETPs and industries to be inspected based on the pollution potential. Accordingly, two days program was prepared and finalized. Further discussed the Monitoring protocol, sampling methodology, parameters to be analysed and concluded the same. Exhibits are placed at Annexure – 10.

4.0 Inspection of the Area by Joint Committee:

As decided in the joint committee meeting, the committee carried out the inspection of the following area on February 11, 2021:

4.01 Inspection of industries in Karur: DEE, TNPCB, Karur appraised the joint committee stating that

Prior to the year 2012, there were 487 Textile processing units in and around Karur town. Out of 487 units, 391 units were members of one of the eight CETPs and balance 96 units were having their own individual ETP. The treated effluent from these units was discharged either directly or indirectly into irrigation canals of River Amaravathy.

During the year 2011 - 2012, all 487 units and 8 CETPs in Karur were totally closed down and power supply to the units were disconnected since the units failed to establish the ZLD system based on the direction issued by Hon'ble High Court of Madras in WP no.: 24560/2003 filed by the agriculture association.

At present, 68 units have established Zero Liquid Discharge

(ZLD) system comprises of Effluent Treatment System, RO Plant and Reject Management System and operating the units with valid consent of TNPCB. Out of 68 units, only 61 units are in operation and remaining seven units are not in operation for the last one year. TNPCB has issued closure Order on 16.12.2020 to five units due to violations observed in ZLD system. Thus, the units are treating their effluent, recycling their entire treated water in the process and not allowed to discharge any effluent.

The Joint Committee inspected two ZLD systems established at M/s. Atlas Processing Mills, Village Andankoil, Karur and M/s. Navarang Dye works, Sanapiratty Village, which are located within 500 m from the river bed and assessed its adequacy.

4.02 Common Effluent Treatment Plant (CETP): It is reported that in Karur area, eight CETPs were in Operation. In accordance with the direction issued by Hon'ble High Court of Madras in WP no.: 24560/2003 filed by the agriculture association, all the eight CETPs has been closed down, since they failed to adopt the ZLD system. The joint Committee inspected two CETPs located within 500 m from the river bed namely

- 1) M/s Karur Andankoil Pollution Control Ltd., S.F No. 1812, Andankoil West Village, Karur Taluk*
- 2) M/s Amaravathy Pollutech Ltd., Andankoil East Village, Karur Taluk.*

Verified that both the CETPs found closed and witnessed that removal of recovered sludge was under progress.

4.03 Effluent Treatment Plant (ETP): Consent has been granted to those units only, which have ZLD system. Thus, there is no standalone operational ETP in Karur area.

4.04 Sewage Treatment Plant (STP): Inspected the STP and verified the facilities available. In order to evaluate the performance of STP, it is decided to collect the samples of Inlet, Aeration tank and Outlet.

4.05 Discharge points into River Amaravathy: Survey for eleven km stretch of River Amaravathy has been carried out by the joint committee in order to identify the discharge points into the River Amaravathy. During the survey, the joint committee has identified six discharge points into the river. All the six discharges

of the Karur into River Amaravathy namely Perilandankoil, AVS-AVR Colony, Chinnandankoil, Light House (Under Old bridge), Sungagate, Kolantagoundanur and T. Sellandipalayam were surveyed, observed its nature & basic characteristics of discharges and decided to collect the samples to assess its pollution potential.

4.06 River Amaravathy:

Eleven km stretch starting from Check Dam at Andankoil village i.e, upstream of Karur town to Downstream of Karur town at Sanapiratti was surveyed to assess the quantity and quality of river water and to find out any discharges into the river. On the day of inspection, scanty flow was noticed in the River and it is reported that the flow was 10 Cusecs.

4.07 Solid Waste Management/Treatment Facilities: Inspected the Bio- methanation Plant, Micro Compost Centre (MCC), and material recovery facility in Integrated Solid Waste Management Facility at Arasu Colony, Vangal Road, Bio-Mining site/Legacy waste processing centre, Village Panchamadevi and MCC at Arugampalayam in order to ascertain the facilities available and assess its performance.

5.0 Joint Monitoring :

Based on the outcome of area inspection, the joint committee carried out the monitoring of the following places on February 12, 2021.

Based on the area inspection and observation of the joint Committee, samples were collected to assess the quality of River Amaravathy & the pollution potential of discharges and evaluate the performance of STP. The details of samples collected are as follows:

<i>S.No</i>	<i>Matrix</i>	<i>No. of samples collected</i>
<i>1.0</i>	<i>River Amaravathy</i>	<i>4</i>

2.0	<i>Discharges into River Amaravathy</i>	6
3.0	<i>Sewage Treatment Plant, Karur</i>	3
4.0	<i>CETPs, 8 nos</i>	<i>All were Closed down fully</i>
5.0	<i>ETPs</i>	<i>No standalone ETP</i>
	<i>Total</i>	<i>13</i>

List of sampling point and the parameters analysed, is presented below:

*List of samples collected and parameters to be analysed
Samples from River Amaravathy*

<i>S.No</i>	<i>Sampling point</i>	<i>Geo-coordinates</i>	<i>Parameters analysed</i>
1.	<i>Check Dam at Andankoil, Upstream of Karur town, left bank</i>	<i>N 10° 57' 5.7636'' E 78° 2' 26.1276''</i>	<i>pH, TDS, DO, BOD, COD, Cl, SO₄, PO₄, TKN, Total Nitrogen, Ammonical Nitrogen,</i>
2.	<i>Madurai Bye- pass bridge (NH44), left bank</i>	<i>N 10° 56' 33.1008'' E 78° 3' 25.8156''</i>	<i>NO₃-N, NO₂-N, Fluoride, Total Alkalinity, P- Alkalinity, Total Hardness, Ca, Mg,</i>
3.	<i>Thirumanilayur Padikattuthurai, Rightbank</i>	<i>N 10° 57' 5.7636'' E 78° 2' 26.1276''</i>	<i>Na, K, SAR, RSC, Boron, Total Coliform, FC</i>

			&
4.	Sanapiratti village near Old Dindugal Water Supply Scheme, Right bank	N 10° 57' 5.7636" E 78° 2' 26.1276"	Heavy metals (Cu, Cd, Cr (Total & Hexa), Iron, Mn, Ni,Pb & Zn)

Sample of discharges:

S.No.	Name of the discharge	Geo-coordinates	Side of River bank	Area of source	Comes under UGDS area or not
1.	Periyar Nagar, Opp. Periandankoil Over Head Tank	N 10° 57' 6" E 78° 2' 34"	Left	Chinnandan Koil East village Panchayat	Not covered
2.	AVS-AVR Colony, Chinnandankoil	N 10° 57' 13" E 78° 4' 17"	Left	Ward No 19	Partly covered
3.	Light House (Under Old bridge),	N 10° 57' 19" E 78° 4' 56"	Left	Ward No 27	Partly covered
4.	Sungagate discharge	N 10° 57' 6" E 78° 5' 12"	Right	Ward No 30	Non covered
5.	Near Animal Husbandary office, Kolantagoundanur	N 10° 57' 3" E 78° 5' 35"	Right	Ward No 37	Non covered

6.	T. Sellandipalayam	N 10° 56' 40" E 78° 4' 22"	Right	Ward No 41	Non covered
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Parameters analysed; pH, TSS, TDS, BOD, COD, Ammonical Nitrogen, Oil & Grease & Heavy metals (Cu, Cd, Cr (Total & Hexa), Mn, Ni, Pb & Zn)

Samples from STP:

S. No.	Name of the discharge	Geo-coordinates	Parameters analysed
1.	Inlet to STP	N 10° 57' 6" E 78° 2' 34"	pH, TSS, TDS, BOD, COD, Ammonical Nitrogen
2.	Outlet to STP	N 10° 57' 13" E 78° 4' 17"	pH, TSS, TDS, BOD, COD, Ammonical Nitrogen, Total Nitrogen, SAR, RSC, Oil & Grease and TC & FC
3.	Aeration Tank	N 10° 57' 19" E 78° 4' 56"	DO & MLSS

In Toto, four samples of river, six samples from discharge points into the river and three samples from STP and thus a total of thirteen samples were collected, sealed and sent to Advance Environmental Laboratories, TNPCB, Salem for further analysis. Based on the test report, the analytical test data has been interpreted as follows

5.1 River Water Quality:

Characteristics of samples collected from six Discharge Points;

During the survey, the joint committee has noticed untreated sewage is discharged into River Amaravathy at six points,

collected the samples from each discharge points and analysed for the Environmental pollutant parameters. Analytical Test Report of discharges is placed at Annexure 5. The Analytical Test Data of those discharges are presented below;

Analytical Test Data of discharges

S. No.	Parameter	Periyar Nagar, Periandan-koil	AVS-AVR Colony	Light House corner	Sungagate	Near Animal Husbandary Office	T. Sellandi palayam
1.	pH at 25 °C	6.72	6.77	6.48	6.68	6.9	6.68
2.	TDS at 180°C	796	1584	884	1584	1592	2132
3.	TSS	80	44	52	128	48	64
4.	Fixed Dissolved solids	760	1524	828	1496	1512	2040
5.	BOD	30	30	33	84	74	78
6.	COD	192	208	200	416	376	384
7.	Oil & Grease	< 4	< 4	< 4	4	4	4
8.	Ammonical Nitrogen as NH3-N	6.16	10.1	6.72	12.9	11.2	14.6
9.	Copper	BDL	BDL	BDL	BDL	BDL	BDL
10.	Zinc	BDL	BDL	BDL	BDL	BDL	BDL
11.	Lead	BDL	BDL	BDL	BDL	BDL	BDL
12.	Nickel	BDL	BDL	BDL	BDL	BDL	BDL
13.	Cadmium	BDL	BDL	BDL	BDL	BDL	BDL

14.	Manganese	BDL	BDL	BDL	BDL	BDL	BDL
15.	Total Chromium	BDL	BDL	BDL	BDL	BDL	BDL
16.	Hexavalent Chromium	BDL	BDL	BDL	BDL	BDL	BDL
17.	Flow	Scanty	Moderate	Low	Moderate	Moderate	Low

Note.: All values are in mg/L except pH. BDL – Below Detection Limit.

The pH of the drain is varying from 6.48 to 6.9, which are in line with normal characteristics of sewage.

TSS of the discharges varies from 44 to 128, which are in line with normal characteristics of sewage. Normally it will be around 100.

TDS of the discharges normally depends on the TDS of raw water used. It varies from 796 to 2132 mg/L, which is slightly more than the normal value. The reason may be due to higher TDS in raw water being consumed.

BOD of the discharges varies from 30 to 84. Normally BOD of a typical sewage will be around 300 mg/l. Here it is on lower side, may be due to dilution. On further enquiry, it is informed by the Officials of Karur Municipality based on the repeated analysis of STP inlet samples that the BOD of sewage from Karur area will be normally around 100 mg/L only.

Oil & Grease of the discharges are lies in between near and below detection level. All elements of heavy metals are below detection level.

From the test report, it is inferred that the discharges are nothing but the untreated sewage from nearby households. Where the average BOD comes to 54.8 mg/L against the Standard of 30 mg/l. Therefore, the discharge of untreated sewage should be stopped immediately. Therefore, it should be channelized to STP

for treatment. If the same is not technically feasible, onsite decentralised wastewater treatment should be installed. The operation of such system should be self-sustained, once it is stabilized after its establishment.

- *Water quality of River Amaravathy:*

Water quality with respect to physicochemical parameters and heavy metals were assessed. During the site inspection, the joint committee observed the scanty flow and a flow of 10 cusecs was reported. The flow was on one side of the bank and following a small stream. The Analytical Test Report of river samples is placed at Annexure - 6.

Water quality with respect to physicochemical parameters:

S. No.	Parameters	*BIS Drinking water quality Standards Acceptable/ Permissible, mg/l	AndanKoil CheckDam, Upstream of Karur town	NH44 Madurai bypass bridge	Thirumanilayur atright bank	Sanapiratti at rightbank
1.	pH	6.5 to 8.5	7.27	7.05	7.2	7.3
2.	DO	5.0 mg/Lfor bathing	6.0	6.7	6.8	6.8
3.	TDS at 180°C	500/2000	512	556	576	612
4.	FDS	--	492	532	556	596
5.	COD	--	16	16	16	16
6.	BOD	3.0 mg/L for outdoor bathing	<2	<2	<2	<2
7.	Total Alkalinity	200/600	208	208	220	208

8.	<i>Phenolphthalein Alkalinity</i>	--	20	8	4	8
9.	<i>Chloride</i>	250/1000	84	100	124	138
10.	<i>Fluoride</i>	1.0/1.5	0.051	0.063	0.075	0.046
11.	<i>TKN</i>	--	1.68	2.24	2.24	2.24
12.	<i>Ammonical Nitrogen, NH₃-N</i>	0.5/0.5	0.56	1.12	1.12	1.12
13.	<i>Nitrate Nitrogen, NO₃</i>	45	0.064	0.042	0.085	0.057
14.	<i>Nitrite Nitrogen, NO₂</i>	--	0.031	0.045	0.392	0.527
15.	<i>Total Nitrogen</i>	--	1.77	2.33	2.72	2.82
16.	<i>Dissolved Phosphate,</i>	--	0.019	0.023	0.056	0.134
17.	<i>Total Phosphate,</i>	--	0.05	0.06	0.125	0.412
18.	<i>Sulphate</i>	200/400	69	78	59	57
19.	<i>Hardness</i>	200/600	228	240	248	244
20.	<i>Calcium as Ca</i>	75	48	49	52	53
21.	<i>Magnesium</i>	30/100	26	28	28	27
22.	<i>Sodium, Na</i>	--	67.8	74.2	81.9	87.9
23.	<i>Potassium, K</i>	--	5.6	5.9	6.3	9.5
24.	<i>Boron</i>	0.5	BDL	BDL	BDL	BDL

25.	<i>Cu</i>	0.05/1.5	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>
26.	<i>Cd</i>	0.003	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>
27.	<i>T.Cr</i>	0.05	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>
28.	<i>H Cr</i>	--	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>
29.	<i>Iron</i>	0.3	0.288	0.39	0.158	0.037
30.	<i>Mn</i>	0.1/0.3	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>
31.	<i>Ni</i>	0.02	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>
32.	<i>Pb</i>	0.01	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>
33.	<i>Zn</i>	5/15	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>	<i>BDL</i>
34.	<i>% Sodium</i>	--	39	40	41	43
35.	<i>SAR</i>	--	2.0	2.1	2.3	2.5
36.	<i>Total Coliform, MPN/100 ML</i>	500 MPN for outdoor bathing	4.5	11	12	5.5
37.	<i>Faecal Coliform, MPN/100 ML</i>	--	<1.8	4.5	4.5	1.8

All values are in mg/L except pH, SAR, TC, FC & %Na.

In India, CPCB has identified water quality requirements in terms of a few characteristics, known as primary water quality criteria. Further, Bureau of Indian Standards has also recommended water quality parameter for different uses in the standard IS 2296:1992. Each water use demands specific quality need. Therefore, to set the standard for the desire quality of a water body, it is essential to identify the uses of water in that water body. In India, the Central Pollution Control Board (CPCB) has developed a concept of designated best uses of Water. According to this, out of the several uses of water of a particular body, the use which

demands highest quality is termed its designated best use.

In light of above, the water quality criteria A and its designated best use is Drinking Water Source without conventional treatment but after disinfection, which demands highest quality of water has been considered in the present case.

Compliance status with respect to Designated Best uses of water – A Class

<i>S.No</i>	<i>Criteria for A Class DBU</i>	<i>AndanKoil Check Dam, Upstream of Karur town</i>	<i>NH44 Madurai bypass bridge</i>	<i>Thirumanilayurat right bank</i>	<i>Sanapiratti at right bank</i>
<i>1.0</i>	<i>Total Coliform MPN/100ml shall be 50 or less</i>	<i>Complied with</i>	<i>Complied with</i>	<i>Complied with</i>	<i>Complied with</i>
<i>2.0</i>	<i>pH between 6.5 and 8.5</i>	<i>Complied with</i>	<i>Complied with</i>	<i>Complied with</i>	<i>Complied with</i>
<i>3.0</i>	<i>Dissolved Oxygen 6mg/L or more</i>	<i>Complied with</i>	<i>Complied with</i>	<i>Complied with</i>	<i>Complied with</i>
<i>4.0</i>	<i>Biochemical Oxygen Demand 5 days 20°C, 2mg/L or less</i>	<i>Complied with</i>	<i>Complied with</i>	<i>Complied with</i>	<i>Complied with</i>

But in the NGT Order dt.:15th December, 2021 says “Steps to be taken to make the water to the potable level”, therefore the drinking water Standards notified by BIS has also been considered for data interpretation of river Amaravathy water quality.

From the Analytical Test Data presented above, it is inferred that

pH: The pH of the river water along Karur stretch fluctuates from 7.05 to 7.3. Thus the acidity and alkalinity balance of the river water along the Karur stretch is not disturbed and complying with the standard of potable water.

DO: The dissolved Oxygen of the river water along Karur stretch fluctuates from

6.0 to 6.8 mg/L. DO is more than 5.0 mg/L at all locations. It shows that the health of the river is maintained.

Total Dissolved Solids (TDS): The TDS of the river water along Karur stretch fluctuates from 512 to 612 mg/L. TDS follows the increasing trend towards downstream and not in acceptable value of 500 mg/L but is within permissible value of 2000 mg/L. This may be due to the natural phenomena of geological terrain of the river bed.

Fixed Dissolved Solids (FDS): The FDS of the river water along Karur stretch ranges from 492 to 596 mg/L. FDS follows the increasing trend towards downstream.

Bio-Chemical Oxygen Demand (BOD): BOD of the river water along Karur stretch is below the detection level. BOD is less than 3.0 mg/L at all four location. It indicates that the organic load in the river is not significant.

Nitrate Nitrogen – NO₃-N: The Nitrate level ranges from 0.042 to 0.085. Nitrate along the stretch is not in significant level and is within the acceptable range.

Chloride: The chloride level ranges from 84 to 138 and is within the acceptable range. Even though the level is not significant but follows the increasing trend towards the downstream.

Fluoride: The Fluoride level ranges from 0.046 to 0.075 and is within the acceptable range.

Hardness: The hardness of river water varies from 228 to 248 mg/L. Slightly more than the acceptance level of 200 mg/L but well within the permissible value of 600 mg/L. The value indicates that the river water is moderately Hard water.

Heavy metals: All heavy metals except Iron are below detection level. Iron level in the river stretch is complied with the Standards and marginally exceeds in one location.

Faecal Coliform: is a specific indicator of faecal contamination originating from human or animal wastes and is an important indicator of water quality – especially in waters where sewage or slurry is discharged. Presence of Faecal Coliform in the river water shows the contamination of sewage.

The quality of river water at all four locations is meeting with the BIS drinking water Standards except for the parameters TDS, FDS & Hardness. These two parameters TDS & Hardness are not within the acceptable range but are in permissible range. An increase of 100 & 16 mg/L and 19.5% & 7% is observed in case of TDS & Hardness respectively. The marginal increase may be due to the characteristics of local terrain.

The quality of river water is meeting the requisite standards in spite of six discharges of raw sewage may be due to the following reasons;

- *In the river, scanty flow was observed and follows a small stream.*
- *The quantity of sewage discharge is less and percolates locally*
- *Because of that the discharge of sewage is not getting mix up with the riverwater*
- *But during flood or full flow, the sewage may get mix up, contaminates the river water and will have impact on the quality of river water.*

The quantity of sewage discharge is not sufficient enough either to flow through the river or to get mix up with river water as stated above. Because of this reason, the river water is meeting the requisite Standards in spite of discharge of untreated sewage.

- *Inspection of the industries:*

The joint committee inspected two industries located within 500 m from the river bed namely

1. M/s. Atlas Processing Mills, I. M/s. Atlas Processing Mills, Sivasakthi Nagar, Periyandankoil Post, Karur

2. M/s. Navarang Dye Works, Village Sanapiratti, Village Narikkattiyur, S. Vellalapatty post, Karur – 639 004

The joint committee examined the Zero Liquid Discharge (ZLD) system for its adequacy.

The ZLD system at M/s. Atlas Processing Mills consists of Effluent Treatment Plant, RO system, MEE, ATFD, Filter press and Decanter. ETP consists of Receiving tank, Flocculation tank, Primary Clarifier, Aeration tank, Secondary Clarifier, Colour removing treatment, Dual Media filter, Filter Press, Decanter and Sludge Drying Beds. The reject management system consists of 4 stages RO system, Multi Effect Evaporators (4 effects), Agitated Thin Film Dryer (ATFD) and Solar Evaporation Pond (SEP). From the operational parameters DO & MLSS of Aeration tank, the Joint Committee assessed the performance of Activated Sludge Process. From the Flow, TDS value and colour of reject of each stage of RO System and MEE and salt collection at ATFD, the joint committee assessed the performance of ZLD system. The treated effluent (RO permeate and MEE condensate) is recycled. The recovered salt to the tune of 1.5 TPD is packed in Poly bag and disposed off in M/s. Tamilnadu Waste Management Ltd., Viruthunagar for safe disposal. Thus, the unit is complying with ZLD system. Since there is no discharge of treated effluent, sample of final treated effluent could not be collected. vital parameters of ZLD system are placed below;

System		Flow (L/Hr)	TDS (mg/L)
RO stage 1	Feed	36,000	5500
	Permeate	24,000	230
	Reject	12,000	10500
RO stage 2	Feed	8,000	10500
	Permeate	4,000	400

	<i>Reject</i>	4,000	19000
<i>RO stage 3</i>	<i>Feed</i>	4,000	19000
	<i>Permeate</i>	2,250	500
	<i>Reject</i>	1,750	38000
<i>RO stage 4 (or) nano filtersystem</i>	<i>Feed</i>	6000	38000
	<i>Permeate</i>	2400	600
	<i>Reject</i>	3600	58000
<i>MEE</i>	<i>Feed</i>	2000	58000
	<i>Condensate</i>	3800	250
	<i>Reject</i>	200	315000
<i>ATFD</i>	<i>Feed</i>	500	315000
	<i>Salt generation</i>	80 Kg /hour	-

The ZLD system at M/s. Navarang Dye Works, Sanapiratti village consists of Effluent Treatment Plant, RO system, MEE, ATFD, Filter press and Decanter. ETP consists of Collection tank, Primary Clarifier, Aeration Tank, Secondary Clarifier, Tertiary Clarifier, Treated Water storage tank, Filter press and Sludge drying beds. From where, after Ultra filtration, the treated water fed into RO system of 3 stages, MEE, ATFD and SEP. The RO permeate and MEE condensate is recycled. Whereas the recovered salt is packed in poly bags and disposed off in M/s. Tamilnadu Waste Management Ltd., Viruthunagar for safe disposal. From the operational parameters DO & MLSS of Aeration tank, the Joint Committee assessed the performance of Activated Sludge Process. From the Flow, TDS value and colour of reject of each stage of RO System and MEE and salt collection at ATFD, the joint committee assessed the performance of ZLD system. Since there is no discharge of treated effluent, sample of final treated effluent could not be collected. vital parameters of ZLD system are placed below;

<i>System</i>		<i>Flow (L/Hr)</i>	<i>TDS (mg/L)</i>
<i>RO stage 1</i>	<i>Feed</i>	<i>15000</i>	<i>9120</i>
	<i>Permeate</i>	<i>10000</i>	<i>940</i>
	<i>Reject</i>	<i>5000</i>	<i>19700</i>
<i>RO stage 2</i>	<i>Feed</i>	<i>6000</i>	<i>19700</i>
	<i>Permeate</i>	<i>3000</i>	<i>690</i>
	<i>Reject</i>	<i>3000</i>	<i>34700</i>
<i>RO stage 3</i>	<i>Feed</i>	<i>3500</i>	<i>34700</i>
	<i>Permeate</i>	<i>1500</i>	<i>1060</i>
	<i>Reject</i>	<i>2000</i>	<i>46900</i>
<i>MEE</i>	<i>Feed</i>	<i>3000</i>	<i>46900</i>
	<i>Condensate</i>	<i>2000</i>	<i>400</i>
	<i>Reject</i>	<i>600</i>	<i>170000</i>
<i>ATFD</i>	<i>Feed</i>	<i>200</i>	<i>170000</i>
	<i>Salt generation</i>	<i>60 Kg/Hour</i>	<i>-</i>

Both the units are having valid consent from TNPCB. Full technical details of the treatment system are placed at Annexure – 7 & 8 respectively.

- Common Effluent Treatment Plant (CETPs):*

The joint Committee inspected two CETPs located within 500 m from the river bednamely

- M/s Karur Andankoil Pollution Control Ltd., S.F No. 1812, Andankoil West Village, Karur Taluk,*
- M/s Amaravathy Pollutech Ltd., Andankoil East Village, Karur Dt Karur District.*

Both CETPs found closed. Sludge is packed in poly sacks and kept in open yard within the CETP premises. Leachate collection facilities are provided. Witnessed the removal of recovered sludge for co-processing in cement kilns was under progress. It is reported that all the eight CETPs in the area are closed and not in operation at present. Disposal of recovered sludge is under progress in phased manner depends on the co-processing capacity. The CETP federation has reported that the disposal of entire recovered sludge will be safely disposed off for co-processing within six months time. The status of CETP is placed below;

CETP Sludge Accumulated/Disposal details as on 12/02/2021

<i>Sl. No.</i>	<i>Name of the CETP and address</i>	<i>Number of member units</i>	<i>Quantity of sludge stored in Tonnes</i>	<i>Status of storage</i>
1.	<i>M/s Karur Vanchi Dyeing Enviro Tech Ltd., S.F No.15/2, Balambalpuram, Karur</i>	23	Nil	-
2.	<i>M/s Karur Andankoil Pollution Control Ltd., S.F No. 1812, Andankoil West Village, Karur Taluk</i>	19	2497	<i>Disposal of sludge for Co Processing is in progress. So far 1500 T disposed</i>
3.	<i>M/s Karur Karuppampalayam EnviroTech Ltd., Karuppampalayam, Karur.</i>	48	4507	<i>Stored in open land in PVC bags</i>

4.	<i>M/s Karur Thiruvai Dyeing Enviro Ltd., Thirumanilayur, Karur</i>	55	9434	<i>Stored in open land in PVC bags</i>
5.	<i>M/s Karur Sukkaliyur CETP Company Ltd., Sukkaliyur, Karur</i>	64	8461	<i>Stored in open land in PVC bags</i>
6.	<i>M/s Karur Taluk Dyeing & Bleaching ETP Co., Ltd., Arugampalayam, Karur</i>	20	4433	<i>Stored in open land in PVC bags</i>
7.	<i>M/s Karur Sellandipalayam Pollution Control Ltd., T. Sellandipalayam, Karur</i>	118	5664	<i>Stored in open land in PVC bags</i>
8.	<i>M/s Amaravathy Pollutech Ltd., Andankoil East Village, Karur</i>	44	4400	<i>Disposal of sludge for Co Processing is in progress. So far 4000 T disposed</i>

Accumulated Quantity of CETP sludge as on 12/02/2021

<i>Total accumulated Quantity</i>	<i>39396 T</i>
<i>Quantity of Sludge sent to M/s. Chettinad Cement Corporation Pvt Ltd for co-processing</i>	<i>5500 T</i>
<i>Balance Quantity as on 12/02/2021</i>	<i>33896 T</i>

Sewage Treatment Plant:

Out of 48 wards in Karur Municipal area, 1 to 32 wards are having Under Ground Drainage systems (UGDs) except the

newly developed areas. The sewage (Black water) from the households in these wards are pumped to STP (15 MLD) for treatment. Vital parameters of Karur are summarised as below:

<i>S.No.</i>	<i>Parameter</i>	<i>Number</i>
1.	<i>Population</i>	<i>2,41,458</i>
2.	<i>Total Households</i>	<i>67436</i>
3.	<i>Water supply</i>	<i>119 LPCD</i>
4.	<i>Total water supply</i>	<i>28.84 MLD</i>
5.	<i>Sewage generation</i>	<i>23.07 MLD</i>
6.	<i>Black water generation</i>	<i>7.5 MLD</i>
7.	<i>Grey water generation</i>	<i>15.57 MLD</i>
8.	<i>Sewage reaching STP</i>	<i>7.5 MLD</i>

From the above table, the committee has observed that Black water only reaches the STP. 35.5% of Sewage reaches the STP and remaining 64.5% ie., 15.57 MLD of sewage finds its own way and partly discharged into River Amaravathy.

The 15 MLD Sewage Treatment Plant in Karur, works based on extended aeration technology. STP consists of collection-cum-equalisation tank, aeration tank, clarifier, maturation pond and Sludge Drying Beds. In order to assess the Environmental performance of STP, a sample of Inlet, Outlet and aeration tank have been collected and analysed the relevant parameters. Around 5.5 to

7.5 MLD of sewage is treated in the STP. Analytical Test Report of STP is placed at Annexure - 9.

The analytical test data is presented below;

Analytical Test Data of STP

S. No.	Parameters	Inlet	Outlet	Standards for the discharge	Compliance status
1.	pH at 25 °C	6.68	7.02	6.5-9.0	Complied with
2.	TSS at 105°C	132	168	100	Not Complied
3.	Fixed Dissolved Solids	1284	1248	NN	NA
4.	BOD	15	38	30	Not Complied
5.	COD	144	232	NN	NA
6.	Ammonical Nitrogen, as NH ₃ -N	9.52	8.4	NN	NA
7.	Sodium Absorption Ratio (SAR)	3.4	2.4	NN	NA
8.	Residual Sodium Carbonate	1.06	0.805	NN	NA
9.	Total Coliform	7000	4900	NN	NA

10.	Faecal Coliform	3100	2200	<1000	Not Complied
	Aeration Tank - Dissolved Oxygen – Nil Suspended Solids (MLSS) – 0.1 Mixed Liquor				

All Values are in mg/L except pH. NN – Not notified.

From the above Test Report, it is observed that the TSS, BOD and Faecal Coliform of treated sewage from STP are not meeting the required standards for the discharge.

pH: The acidity and alkalinity balance is not disturbed during the treatment process and further complied with the Standards for the discharge of sewage.

Total suspended solids (TSS): TSS has increased from 132 to 168 mg/L instead decreasing, not complying with the Standards for the discharge of sewage and also not meeting its own designed value of 50 mg/L. Sedimentation in equalisation tank and clarification of aerated water is not taking place in the clarifier. The increase in TSS may be due to the contribution from natural organic substances like Algae growth; this shows that the sewage finds its own way instead of undergoing the treatment.

Bio-Chemical Oxygen Demand (BOD): The Committee observed the low strength sewage in inlet ie., BOD of the inlet was 15 mg/L. But reported that the BOD of the sewage normally varies from 80 to 120 mg/L. The reason for the low value of BOD may be due to the secondary washings, since the sample was collected during the lean period ie., in the noon. The BOD has increased from 15 to 38 mg/L instead of decreasing and thus not only complying with the Standards for the discharge of sewage but also its own designed value of 20 mg/L. The increase in BOD may be due to the natural organic substances like Algae growth, this shows that the treatment is not taking place.

Faecal Coliform (FC): Faecal Coliform in the final treated sewage of STP was 2200 against the standards of 1000 MPN/100ml. Only 30% reduction is observed. The treatment system supposed to remove the harmful bacteria i.e, FC completely. Whereas the treatment system removed only 30%. Thus, it confirms that the partial/natural treatment is taking place in the STP.

DO & MLSS from Aeration tank: In order to ensure the effectiveness of operation of STP, sample from aeration tank for the parameter Dissolved Oxygen (DO) & Mixed Liquor Suspended Solids (MLSS) was collected. The analytical Test Report reveals that DO was nil against not less than 2.0 mg/L and MLSS was 0.1 against the value in between 3500 and 4000 mg/L. In absence of DO and MLSS, it is not possible to stabilize the Organic substances biologically.

Sludge Drying Beds: The joint committee did not find any accumulation of sludge in sludge drying beds during the inspection of STP.

In light of above, the joint committee has concluded that the sewage is just passing through the STP and partial treatment is taking place in its natural way. Operation of STP was not carried out professionally. The BOD of raw sewage will be around 300 mg/Lin an average, whereas here it is around 100 mg/L only. One third of the reference value. The Analytical Test Report of repeated analysis of raw sewage confirms the same. The Joint Committee had a lengthy discussion on the same.

Irrigation water quality Classification: As per plan, the treated sewage from STP is supposed to be used for land application/irrigation and reported that the treated sewage is used for irrigation. In view of this, the following parameters are analysed to ensure its safe use for irrigation and confirm that any discharge from any of the Textile processing units is getting mix up with the sewage.

S.No	Parameter and its	Classification	Suitability
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.	value		
1.	pH - 7.02	Excellent	Suitable for irrigation
2.	SAR - 2.4	Fair	
3.	RSC - 0.805	Excellent	

The partially treated sewage from the STP is discharged into nearby irrigation Channel. From there, the partially treated sewage is used for irrigation.

Gaps observed in STP:

- Oil and Grease trap and its allied facilities namely collection, storage and safe disposal mechanism for scum are not in place.
- Bar Screen Chamber and its allied facilities namely collection, storage and safe disposal mechanism for grit and floatables are not in place.
- Chlorination or UV radiation or any other disinfectant mechanism is not in place for safe disposal of treated sewage so that Faecal Coliform in the final treated waste water is absent.
- Failed to maintain the desired level of Dissolved Oxygen and Mixed Liquor Suspended Solids (MLSS) in the Aeration tank.

Action proposed to be taken against STP:

The operator of STP may be directed to operate the STP professionally based on the operational parameters as referred above so as to achieve the standards for the discharge of treated sewage.

The raw sewage from the balance area (16 wards), newly developed areas and the adjacent Andankoil village Panchayat area which are not covered under the UGD system is discharged into the River Amaravathy (Left bank) and Storm water drain (Right bank of the River). The TNPCB has directed the Karur Municipality to provide STP with UGDS covering the balance municipal area and

stop discharging the untreated sewage. The Hon'ble Madurai Bench of Madras High Court has also given direction in this regard to Karur Municipality vide order dt. 28/09/2016 in WP(MD)No 15295 of 2012. But still untreated sewage from part of Karur area is discharged directly into the River Amaravathy (Left bank) and Storm water drain (Right bank) for want of land to establish STP.

Solid Waste Management:

Karur Municipality consists of 48 wards spread over 53.26 Sq. Km. The population of Karur Municipality is around 2.5 lacs. The scenario of Solid Waste generation in Karur Municipality is presented below;

<i>Category</i>	<i>Numbers</i>	<i>Wet Waste, TPD</i>	<i>Dry Waste, TPD</i>	<i>Total, TPD</i>
<i>Households</i>	67426	4 1	11	53
<i>Commercial establishments</i>	13766	4	7	11
<i>Industrial units</i>	215	-	3	3
<i>Bulk generators</i>	77	1 0	2.5	12.5
<i>Total</i>	81484	5 5	23.5	78.5
<i>Inert & C & D waste</i>	As above	-	3	3
<i>Grand Total</i>				81.5

Micro Compost Centre MCCs: Wet (Bio-gradable) waste from households are collected at door steps in a segregated at source manner on daily basis. The same is transported to the nearby Micro Compost Centre (MCC) for treatment. There are twelve MCCs in

Karur Municipality area. The capacity of each centre varies from 3 to 5 TPD. Each centre will have 14 to 16 pits. Thus 41 TPD wet waste is treated in twelve MCCs.

On receipt of wet waste at MCC, non-bio degradable items are removed manually. The screened materials are shredded in mechanical shredder. While shredding the wet waste, Effective Microorganisms (EM) ball will be introduced. The shredded wet waste is fed into the compost pit layer by layer per pit per day. Seven pits will be chosen in first cycle and will be fed for 3 rounds. Thus 21 days will take to complete the first cycle. Remaining 21 days the pit will be left for composting. Periodic turning of waste during compost process is being carried out manually by heaping from one end to another end. In the second cycle, the feeding will be carried out in the remaining seven pits for twenty-one days in three rounds. On completion of 42 days, the compost will be ready and sold at the centre itself to the farmers on first come first basis. Now, first set of seven pits will be ready for feeding. Thus the cycle repeats and goes on.

Gaps observed:

Failed to

- 1. mix the bulk agent namely garden waste, Farm yard Waste, Coconut fibre (Peat), wood chips, wooden pieces, Straw, shredded coconut shells, plant cuttings, Mulch, husk, bran and saw dust, of suitable proportion, along with the shredded wet waste before feeding into the compost pit in order to maintain the particle size and Oxygen level.*
- 2. Establish suitable rotary screen to screen the compost and non-composted materials.*
- 3. The bio degradable materials which is not fully composted may be recycled as a bulking agent*
- 4. Provide hard surface pad (Concrete floor) to dry the compost*
- 5. Provide shed of adequate capacity to store the compost*

6. *Maintain the stock register for the management of Compost stock*

Bio-Methanation Plant, 5 TPD: Food, Vegetable and Fruit waste are transported to Bio-methanation plant. The waste is checked for any other non bio degradable waste manually and handpicked. The bio degradable waste is grinded into slurry form and fed into the digester. The bio-gas so generated is used to operate the machineries and lighting established in Integrated Solid Waste Management facility.

Gaps observed: Bio gas was stored in the Bladder instead of the gas holder. A puncture was noticed in the bladder holding the biogas.

Bulk Waste: The Bulk waste generated from 64 Kalyana Mandapams, 10 Hotels and 3 Educational Institutions are treated in 18 Onsite Compost Centre (OCC) on their own. 34 bulk waste generators use a common facility.

Dry Waste: The dry waste is collected at door step twice in a week. Dry waste so generated from Karur Municipal area is transported to the Integrated Solid Waste Management facility in the village Arasu Colony. There, the dry waste is screened for recyclable and non recyclable waste manually. The waste namely coconut shells, Paper, Glass, Plastic, iron items are hand-picked and sold off to scrap dealer. The non recyclable waste items namely polythene bags, rubber, tyres and cloths are shredded, baled and forwarded to cement industries for co-processing. The non usable items, inert are stored along with C & D waste in Arikkapalayam yard at Salem bye pass road and used for land filling.

Legacy waste: The legacy waste accumulated over the period of 30 years spread over 13.68 acres in the Village Panchamadevi. The accumulated waste is estimated

to be around 1,41,731 m³ and the legacy waste processed so far is 1,27,558 m³ on the day of inspection. Around 86% of legacy waste has been processed so far. Reclamation of dumping yard and Bio-mining of legacy waste is under progress.

Bio remediation of the legacy waste is carried out by adopting coning compost. The stabilised waste is screened mechanically by adopting 3 stages & SCADA controlled Trommels. The recyclable material so recovered is sold off to scrap dealer and RDF is forwarded for co-processing. Bio-earth is sold off to farmer as manure. Inert is forwarded to C&D waste yard at Arikampalayam, Salem Bye pass road for safe storage and land-filling as per the request.

Summary of Joint committee findings based on the Field observations:

- I. All 68 textile processing units in Karur area have established ZLD system and no discharge of trade effluent either treated or untreated is allowed.
- II. The joint committee surveyed the eleven km Karur stretch of River Amaravathy starting from Check Dam, Andankoil -Upstream of Karur town to Sanapiratti village near Old Dindugal Water supply scheme – Downstream of Karur town and did not notice any illegal or unauthorised untreated discharge being made by any of the industries into the River Amaravathy.
- III. From the Analytical Test Report of river water, the joint committee has inferred that the river is meeting the Designated Best Use criteria notified by CPCB. From the parameters namely Colour, TDS, FDS, BOD and heavy metals, the joint committee is ruling out the contamination of any trade effluent. The presence of Faecal Coliform in the river water reveals that there is the possibility of inception of Domestic effluent.
- IV. The Test Report of river water revealed that the

Amaravathy River water is fit for drinking use with conventional treatment and bathing purposes in Karur stretch.

- V. *The joint committee has inspected the site in question and made the enquiry. On enquiry, the joint committee came to know that the canal was made to partially divert the river water from one bank to another bank to the temple padikattuthurai (Bathing Ghat), by the nearby temple trust on occasion of Kumbhabhishekam festival performed at Vanjileeswar Temple, Bramma thertham Road, Karur during last week of Nov-2020 for the convenience of devotees. Circumstantial evidences substantiate the above claim and Committee did not find any abnormalities in that area other than the above stated facts.*
- VI. *In light of above, the joint committee did not assess any Environmental Compensation for damage caused on account of any alleged illegal activity resulting in pollution to the water in the river Amaravathy.*
- VII. *All CETPs in Karur area were closed way back in 2011-2012. At present none of the CETP is in operation. Only removal of accumulated sludge stored in polythene bags is going on depends on the capacity of co-processing unit.*
- VIII. *All the units having ETP alone and failed to establish the ZLD system were closed way back in 2011-2012. Therefore, no standalone ETP is in operation.*
- IX. *Out of 48 wards in Karur Municipality limit, Ward no. 1 to 32 are covered under UGD scheme except the newly developed areas. The sewage (Black water) from these areas is channelized to Sewage Treatment Plant (STP), where it is treated partially. The treated sewage is discharged into the nearby irrigation canal. From the canal, the treated sewage is utilised for irrigation by the farmers.*
- X. *In case of balance 16 wards and newly developed*

area, the sewage is directly discharged into the River Amaravathy (Left bank) and storm water drain (Right bank). It is reported that from storm water drain, it is utilized for irrigation by the nearby farmers. All storm water drain on right bank, has provision of shutters to discharge the sewage into River Amaravathy for emergency use. It is reported that during flood time only the shutter will be opened.

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- XI. Wet waste from the households in Karur Municipality is collected at door step in a segregated at source manner on daily basis. Wet (Bio- degradable) waste is collected daily. The wet waste is shredded and composted in twelve Micro Compost Centres. Further improvement is required.
- XII. Food, Vegetable and fruit waste are grinded into slurry form and fed into Bio-Methanation plant for Anaerobic digestion to produce bio-gas. The bio gas so produced is used in operating the equipment and lighting installed at Integrated Solid Waste Management facility.
- XIII. Bulk waste generators are treating their waste on their own.
- XIV. Dry waste is collected twice in a week. Fresh dry waste is transported to Integrated Solid Waste Management Facility for materials recovery by handpicking and gravity separation through mechanical screening. Recyclables are handpicked and sold off to scrap dealers. Non recyclables and combustibles (RDF) is forwarded for co-processing. Inert is forwarded to C&D waste storage yard for safe storage and disposal for land filling.
- XV. Bio-mining of Legacy waste is under process. But failed to provide pollution control measures and devices to check the fugitive and source emission

Suggestions of the Committee:

The Joint Committee proposed following actions to be taken by Tamilnadu Pollution Control Board and Karur Municipality to prevent illegal discharges and inception of sewage & garbage into river Amaravathy:

TNPCB may be directed to

- *Continue the constant and continuous vigil and monitoring mechanism of all water polluting industries in Karur area and ensure the Zero Liquid Discharge.*
- *Continue the constant vigil on Karur river stretch for any illegal discharges into the river Amaravathy by deploying patrolling in order to prevent any occasional discharge too.*
- *Continue the monthly monitoring of River Amaravathy and assess its quality for any deterioration.*

Karur Municipality may be directed to

- *stop discharging the untreated sewage into the river Amaravathy immediately and to take necessary steps to channelize the grey water from UGD covered area and sewage from uncovered UGD area to STP so as to treat the same*
- *Take sincere efforts to operate the Sewage Treatment Plant in a more efficient and scientific manner and should be managed professionally.*
- *take sincere efforts to operate the Micro Compost Pit in a more professional manner and make additional facilities to mix the bulking agent to the shredded wet (Bio-degradable) waste so as to maintain the particle size and Oxygen level, hard surface Pad to dry the compost, Sieve to screen the compost & not fully converted compost, storage yard for storing the compost and the facility to recycle the not fully converted compost.*
- *to provide the hard surface pad for process & utility area & all approach roads and wind breaking walls to contain the*

fugitive emission at Bio-mining site.

- *Create awareness among general public to keep the unsoiled polythene bags safe, storing it and hand over the same in bulk preferably in Bundle form to the sanitary workers so as to simplify the stress on its management.*
- *Develop Miyawaki forest as planned without fail in the reclaimed land to the tune of 13.68 acres, after completion of bio-mining.*

By considering all the above facts, the Hon'ble National Green Tribunal may pass appropriate Order(s)/Direction(s) as deemed fit."

7. It is seen from the reports submitted by the Joint Committee as well as the Pollution Control Board that no industrial effluent is being discharged into the Amaravathi River and water quality in the river meets the inland surface water quality and most of the pollution that is being caused on account of the untreated sewage being discharged into the river.
8. As regards the implementation of the Solid Waste Management Rules, 2016, it was revealed from the earlier report submitted by the Karur Municipality that they have started the bio-mining process for disposal of the existing legacy waste and 80% of the legacy waste was disposed of. But they have not mentioned anything about the present status and they have also not filed any report regarding the gaps found by this Tribunal in the earlier report submitted by the Karur Municipality. Further, it appears from the report that water samples were taken from the nearby areas of

the industry alone and not from the areas that has been pointed out in the newspaper report.

9. It is also mentioned in the newspaper report that the people in the locality had stopped the earth mover which was digging the channel inside the river to channel waste water from the nearby industries and in spite of the opposition, the digging resumed. Neither the Karur Municipality nor the Public Works Department (PWD) officials had looked into the matter and submitted any report regarding the allegations made in the newspaper report in this regard.
10. The committee that has been appointed by this Tribunal also did not go into the question as to whether any internal illegal channels have been provided from any of the industries to discharge their sewage into the river without treating the same. So under such circumstances, we feel it appropriate to direct the Tamil Nadu Pollution Control Board and the committee to consider these aspects as well and submit a detailed report regarding the specific allegations made of making illegal channels from the nearby industries for discharging their sewage or other industrial effluents illegally at the place pointed out in the newspaper report.
11. They are also directed to ascertain the location of the area which is covered by the photograph mentioned in the newspaper report and ascertain as to whether allegations made by them in this regard are correct

or not and if it is correct, what is the nature of action taken by the authority to prevent such illegal activities.

12. The Public Works Department (PWD) is also directed to file an independent report regarding the mechanism provided by them to protect Amaravathi River from pollution and encroachment. The Karur Municipality is also directed to submit a detailed report regarding the steps taken by them for implementing the recommendations made by the committee to be carried out from their side to avoid discharge of untreated sewage from Ward No.33 to 48 which were subsequently included in their municipality in respect of which no sewage treatment facilities have been provided.

13. The committee as well as the concerned departments are also directed to file their independent statement and also the compliance report as directed by this Tribunal on or before 28.06.2021 by e-filing in the form of Searchable PDF/OCR Supportable PDF and not in the form of Image PDF along with necessary hardcopies to be produced as per Rules.

14. The Registry is directed to communicate this order to the members of the committee, Tamil Nadu Pollution Control Board, Public Works Department, Karur Municipality apart from informing the same to the Chief Secretary, State of Tamil Nadu, Principal Secretaries of Environment, Public Works Department & Water Resource Organization

and Irrigation by e-mail for their information and compliance with the directions.

15. For consideration of further report, post on 28.06.2021.

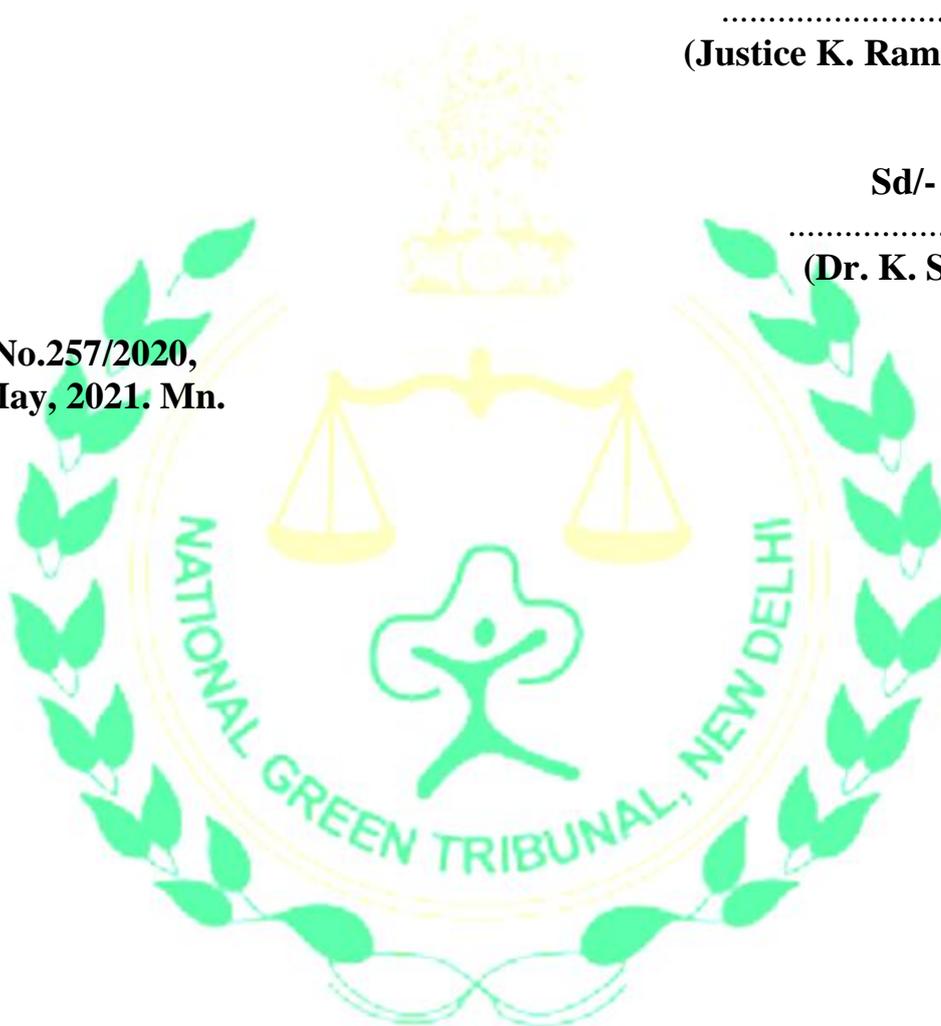
Sd/-

.....J.M.
(Justice K. Ramakrishnan)

Sd/-

.....E.M.
(Dr. K. Satyagopal)

O.A. No.257/2020,
25th May, 2021. Mn.



Item No.12:

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

Original Application No. 257 of 2020 (SZ)

(Through Video Conference)

IN THE MATTER OF:

Tribunal on its own motion
Suo Motu based on the news
Item in The New Indian Express
Dt.27.11.2020, “A Coom in the making in Karur?”

... Applicant(s)

Versus

The Chief Secretary to
Government of Tamil Nadu,
Chennai & Ors.

...Respondent(s)

Date of hearing: 28.06.2021.

CORAM:

HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER

HON'BLE DR. K. SATYAGOPAL, EXPERT MEMBER

For Applicant(s):

Suo Motu

For Respondent(s):

Mr. C. Harsharaj for R1 to R5, R7 and R9
Mr. C. Kasirajan through Ms. Ashwini for R6
Mr. P.Srinivas for R8
Ms. P. Jayalakshmi for CPCB

ORDER

1. As per order dated 25.05.2021, this Tribunal had considered the report submitted by Tamil Nadu Pollution Control Board signed on 22.04.2021, e-filed on 26.04.2021 and received on 28.04.2021 which was extracted in para 5 of the order and also considered the Joint Committee report dated 20.05.2021, e-filed on 22.05.2021 and received on 25.05.2021 which was extracted in para 6 of the order and thereafter passed the following order:

7. It is seen from the reports submitted by the Joint Committee as well as the Pollution Control Board that no industrial effluent is being discharged into the Amaravathi River and water quality in the river meets the inland surface water quality and most of the pollution that is being caused on account of the untreated sewage being discharged into the river.

8. As regards the implementation of the Solid Waste Management Rules, 2016, it was revealed from the earlier report submitted by the Karur Municipality that they have started the bio-mining process for disposal of the existing legacy waste and 80% of the legacy waste was disposed of. But they have not mentioned anything about the present status and they have also not filed any report regarding the gaps found by this Tribunal in the earlier report submitted by the Karur Municipality. Further, it appears from the report that water samples were taken from the nearby areas of the industry alone and not from the areas that has been pointed out in the newspaper report.

9. It is also mentioned in the newspaper report that the people in the locality had stopped the earth mover which was digging the channel inside the river to channel waste water from the nearby industries and in spite of the opposition, the digging resumed. Neither the Karur Municipality nor the Public Works Department (PWD) officials had looked into the matter and submitted any report regarding the allegations made in the newspaper report in this regard.

10. The committee that has been appointed by this Tribunal also did not go into the question as to whether any internal illegal channels have been provided from any of the industries to discharge their sewage into the river without treating the same. So under such circumstances, we feel it appropriate to direct the Tamil Nadu Pollution Control Board and the committee to consider these aspects as well and submit a detailed report regarding the specific allegations made of making illegal channels from the nearby industries for discharging their sewage or other industrial effluents illegally at the place pointed out in the newspaper report.

11. They are also directed to ascertain the location of the area which is covered by the photograph mentioned in the newspaper report and ascertain as to whether allegations made by them in this regard are correct

Page 45 of 46 or not and if it is correct, what is the nature of action taken by the authority to prevent such illegal activities.

12.The Public Works Department (PWD) is also directed to file an independent report regarding the mechanism provided by them to protect Amaravathi River from pollution and encroachment. The Karur Municipality is also directed to submit a detailed report regarding the steps taken by them for implementing the recommendations made by the committee to be carried out from their side to avoid discharge of untreated sewage from Ward No.33 to 48 which were subsequently included in their municipality in respect of which no sewage treatment facilities have been provided.

13.The committee as well as the concerned departments are also directed to file their independent statement and also the compliance report as directed by this Tribunal on or before 28.06.2021 by e-filing in the form of Searchable PDF/OCR Supportable PDF and not in the form of Image PDF along with necessary hardcopies to be produced as per Rules.

14.The Registry is directed to communicate this order to the members of the committee, Tamil Nadu Pollution Control Board, Public Works Department, Karur Municipality apart from informing the same to the Chief Secretary, State of Tamil Nadu, Principal Secretaries of Environment, Public Works Department & Water Resource Organization and Irrigation by e-mail for their information and compliance with the directions.

The case was posted to today for further consideration of report.

When the matter came up for hearing today Mr. C Harsharaj represented respondents 1 to 5, 7 and 9, Mr. C.Kasirajan through Ms. Ashwini represented 6th respondent, Mr. P. Srinivas represented 8th respondent and Ms. P. Jayalashmi represented CPCB.

2. We have received the action taken report filed by 8th respondent dated 24.06.2021, e-filed on 28.04.2021 and received on the even date which reads as follows:

Action taken report of 8th Respondent

On receipt of the orders of the Honourable National Green Tribunal (SZ) at Chennai dated 26.02.2021 in Karur Municipality on 27.02.2021, the following actions were taken.

1. *A Consultant by name M/s Eco water Engineering and services, Perundurai was engaged by the Municipality to prepare a detailed project for prevention of sewage water contamination in the Amaravathi river vide this letter office ROC. No. 11380/2016/E5 dated 04.03.2021. The consultant*

inspected the site on 05.03.2021 and submitted a report on 08.03.2021.

2. *As per the report, the municipal drainage water inlet in the river bed at a different places along the Amaravathi river bed. Out of these 9 places, 4 places have underground drainage scheme manhole chambers at distance of about 100m to 150m. Therefore in order to prevent the drainage water from being let in to the river bed, it has been proposed to provide ground level drain water collection tanks with electric motor to pump out the drainage water in to the man hole through pipeline at an estimated cost of Rs.10.00Lakhs.*
3. *The Executive Engineer, Public Works Department Amaravathi river basin Dharapuram has been addressed to accord permission to carryout the above work vide this ogice ROC. No. 114380/2016iE5 dated 18.03.2021. Due COVID 19 Pandemic situation the above work could not be carried out.*
4. *Apart from this, in order to prevent river pollution of the Cauvery river and the Amaravathi river under "Nandanthaivazhi Cauvery Scheme" the Karur municipality area has been included in that scheme. A complete rejuvenation of the STP has been proposed at an estimate cost of Rs.7.50 crores.*
5. *Also proposal for providing decentralized treatment plant to treat the drain water discharge to a capacity of 15 MLD has been included at an estimate cost of Rs.15.00 crores in the same scheme. So that treated water only to be discharged in to the Amaravathi river.*
6. *The Chief Engineer, water resource organization, Trichy zone has been requested to submit the action taken report in the "NandanthaiVazhi Cauvery scheme" pertaining to Karur municipal area vide Roc. No.11380/2016/E5 dated 31.03.2021. A letter received from the Chief Engineer, water resource organization, Trichy zone on 12.04.2021, Stating that, rejuvenation of STP and to provide decentralized Treatment Plant proposal has been included in phase I, Part II and preparation of detailed project report are under preparation.*
7. *In order to provide UGSS Scheme in the leftover areas of Karur and InamKarur and Thanthoni and Sanapiratty area a consultant has been appointed namely Mls. N.K. BuildCon consultant Hyderabad to prepare the DPR. For the same, a Draft DPR has been prepared for an infrastructure project to address the issue at an estimated cost of Rs. 332.63 crores and submitted for approval. The Land for providing pumping stations and STP, the Revenue Department has been requested for the allotment of a suitable site.*
8. *To treat the sewage water in the STP effectively a consultant has been appointed to submit the detailed project report. After getting the reports, the necessary rejuvenation work will be carried out to let out the treated sewage water as per the standards. The gaps, pointed out by the Honorable National Green Tribunal will be rectified during the rejuvenation work of STP. The time for completion of the said Rejuvenation project is Six months and it is expected to be completed by December 2021.*

Solid Waste Management:

Reply for gaps observed in Solid Waste Management:

1. All Sanitary Inspectors, Sanitary Supervisors, Animators and sanitary workers involved in maintenance of Micro Compost Centre on mixing the bulk agent with shredded wet waste.
2. Rotary screen is established in MCCs to screen the composted and non-composted materials.
3. Suitable instructions given to use partially composted biodegradable materials to use as a bulking agent.
4. Hard surface pad (Concrete floor) will be provided to dry the compost
5. Shed of adequate capacity to store the compost will be provided
6. Suitable instructions to maintain the Stock register of Compost Stock is issued.

Bio-methariation Plant

The gaps observed in the bio methanation plant will be rectified. It is proposed to store the gas in the gas holder instead of bladder. This work will be completed by the month of September 2021.

Legacy waste:

Legacy waste of 1,41,731 Cubic Meters has been processed fully and RDF materials are forwarded for so-processing. No further legacy waste is available on the site of the Compost yard at Eastern Side.

The above issues will be rectified and the works will be completed by the time lines indicated against the relevant items.

Commissioner
Karur Municipality

3. It is seen from the report of 8th respondent that the legacy waste which was lying in the dumpyard has been processed fully and the gap observed in the bio-degradable plant will be rectified for which they require time up to September, 2021. The Learned Counsel appearing for State Department submitted that Public Works Department had tried to e-file the report but due to some defect in the system same could not be done, so the report has been e-mailed but the office informed that the same has not been received even on e-mail. The Learned Counsel for the State Department has undertaken that they will rectify the defect, if any, and then e-filed the report, if some time is granted. Smt. Jayalakshmi appearing for Central Pollution Control Board submitted that due to non-

availability of some of the members, inspection could not be completed and they want further two months time.

4. It may be mentioned here that the only question for consideration is whether recommendations and gap found by the Committee, implementation of the recommendation to rectify the same by the respective departments and that will have to be ascertained by the Joint Committee. If some of the members are not available due to illness or other reasons they can depute some other officer in their place for that purpose and then collect the data and submit the report. The Tamil Nadu Pollution Control Board has not come up with any independent report as directed. So under such circumstances, we feel some more time can be granted to the Joint Committee as well respondents to submit their respective reports as directed in earlier orders. The 8th respondents is also directed to submit the further progress report to this Tribunal on or before 18.08.2021 by e-filing in the form of Searchable PDF/OCR Supportable PDF and not in the form of Image PDF along with necessary hardcopies to be produced as per Rules.

5. The Registry is directed to communicate this order to the members of the committee, Tamil Nadu Pollution Control Board, Public Works Department, Karur Municipality apart from informing the same to the Chief Secretary, State of Tamil Nadu, Principal Secretaries of

Environment, Public Works Department by e-mail for their information and compliance with the directions.

6. For consideration of further report, post on 18.08.2021.

.....J.M.
(Justice K. Ramakrishnan)

.....E.M.
(Shri. Dr. K. Satyagopal)

O.A. No.257 /2020(SZ)
28th June, 2021. (AM)





Report No.DEL/DGL/187

Tamil Nadu Pollution Control Board

DISTRICT ENVIRONMENTAL LABORATORY, DINDIGUL-624 004.

REPORT OF ANALYSIS

1. Name and Address of the Sender : The District Environmental Engineer,
Tamil Nadu Pollution Control Board,
Karur.
2. Date and time of Collection : 23.07.2021 at 11.45 AM.
3. Date and time of Receipt at Laboratory : 23.07.2021 at 04.45 PM.
4. Condition of Seals, Fastening and Container : Sealed and Fastened Condition in
Polythene Carbuoy of 2.5 Lit x 1.
5. Nature and Number of Samples : One No. of Water Sample.

DEE Code No.	Lab Code No.	Point of Collection	T/UT/PT/NM
CPCB 1/DEE/KAR DO - Bottle No 16	384	Trench in River Amaravathi pointed in the newspaper report	Untreated

S. NO	PARAMETERS	384
1	pH	7.36
2	Total Suspended Solids (mg/l)	16
3	Total Dissolved Solids (mg/l)	1084
4	BOD 3 days at 27°C (mg/l)	88
5	Chemical Oxygen Demand (mg/l)	304
6	Dissolved Oxygen (mg/l)	1.10
7	Ammonical Nitrogen (as N) (mg/l)	25.2
8	Total Nitrogen (mg/l)	0.20
9	Residual Sodium Carbonate (mg/l)	- ve
10	Sodium Adsorption Ratio [SAR]	7.15
11	Fecal Coliform (mg/l)	*

* Fecal Coliform - Facility is not available.

End of the Report.

VSR
06/08/2021
Jr.Env.Scientist

[Signature]
Deputy Chief Scientific Officer,
DEL, TNPCB, DINDIGUL.

IR No.KAR 0244/DEE/Karur/2021 Dated : 20/07/2021



**Tamil Nadu Pollution Control Board
Inspection Report**

1. Name and Designation of the Inspecting Officer	1. Thiru. R. Mathivanan JCEE(M),Salem 2. Thiru. K. Manivannan EE,FS,TNPCB,Erode 3. Thiru. V. Gopalakrishnan, DEE, TNPCB, Karur 4. Thiru V.Jayakumar,AEE,TNPCB,Karur																																								
2. Date of Inspection	22/6/2021																																								
3. Name and address of the Industry	M/s. JOSE COLOURS, T.S.No.364/4, Karur Town, Pasupathy Layout, No.6, Chinnandankoil Road 1st Cross, Karur.																																								
4. Name of the Representative during the inspection	Mr. Subramani, The Manager																																								
5. Sector	Small																																								
6. Category	Red																																								
7. Products	Bleaching and Dyeing of Cotton Yarn/Fabrics - 44.85 T/Month																																								
8. Activity carried out	Dyeing of yarn using cheese machines																																								
9. Quantity of sewage/Trade effluent	Sewage: 1.00 KLD – On industry's own land Trade effluent – 100 KLD - Reused in the process with reject management system																																								
10. Status of Effluent Treatment system provided	ZLD – In operation <table border="1"> <thead> <tr> <th>SL. No.</th> <th>Name of the Treatment Unit</th> </tr> </thead> <tbody> <tr><td>1.</td><td>Collection Tank</td></tr> <tr><td>2.</td><td>Dosing Tank</td></tr> <tr><td>3.</td><td>Settling Tank</td></tr> <tr><td>4.</td><td>Aeration Tank</td></tr> <tr><td>5.</td><td>Secondary Clarifier</td></tr> <tr><td>6.</td><td>Tertiary Clarifier</td></tr> <tr><td>7.</td><td>RO I Feed Tank</td></tr> <tr><td>8.</td><td>RO II Feed Tank</td></tr> <tr><td>9.</td><td>RO III Feed Tank</td></tr> <tr><td>10.</td><td>Nano Feed Tank</td></tr> <tr><td>11.</td><td>Nano Brine Tank</td></tr> <tr><td>12.</td><td>RO Combined Permeate Tank I</td></tr> <tr><td>13.</td><td>RO Combined Permeate Tank II</td></tr> <tr><td>14.</td><td>Evaporator Feed Tank</td></tr> <tr><td>15.</td><td>Evaporator Condensate Tank</td></tr> <tr><td>16.</td><td>Cooling Tower Feed Tank</td></tr> <tr><td>17.</td><td>Pressure Sand Filter</td></tr> <tr><td>18.</td><td>Activated Carbon Filter</td></tr> <tr><td>19.</td><td>RO I- Brackish Water Membranes - 6 No (8 inch)</td></tr> </tbody> </table>	SL. No.	Name of the Treatment Unit	1.	Collection Tank	2.	Dosing Tank	3.	Settling Tank	4.	Aeration Tank	5.	Secondary Clarifier	6.	Tertiary Clarifier	7.	RO I Feed Tank	8.	RO II Feed Tank	9.	RO III Feed Tank	10.	Nano Feed Tank	11.	Nano Brine Tank	12.	RO Combined Permeate Tank I	13.	RO Combined Permeate Tank II	14.	Evaporator Feed Tank	15.	Evaporator Condensate Tank	16.	Cooling Tower Feed Tank	17.	Pressure Sand Filter	18.	Activated Carbon Filter	19.	RO I- Brackish Water Membranes - 6 No (8 inch)
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	20. RO II- Sea Water Membranes – 2 No (8 inch)
	21. RO III- Sea Water Membranes – 2 No (8 inch)
	22. NF- Nano Membrane - 1 No (8 inch)
	23. Multiple Effect Evaporator (4 Effects)
	24. ATFD
11. Mode of disposal of sewage	Septic tank with Soak pit arrangements
12. Mode of disposal of Trade effluent	Recycled to the process, MEE & ATFD are under Operation
13. Any other information and Specific recommendation	
<p>The Hon'ble National Green Tribunal in the matter of OA No.: 257/2020 in its order dated 25.5.2021 has directed the Board to file a report . In this regard , the Board has constituted a Committee in compliance with the Order and it has carried out inspection on 22/6/2021.</p> <p>During inspection the following was observed,</p> <ol style="list-style-type: none"> 1. The unit was not in operation. 2. The unit has provided cheese machine with 600, 300, 250 & 200 Kg capacity. 3. The ETP was in operation. 4. The RO system under operation. 5. TDS level are measured as 2720 Mg/lit at RO feed & 640 Mg/lit at RO permeate respectively 6. The unit has maintained log book. 7. There is no illegal visible pipe line in the unit to discharge effluent. 	
<p><i>V. Karur</i> 20/12/2021 AEE/Karur</p> <p><i>V. Karur</i> 20/12/21 DEE/Karur</p> <p><i>V. Karur</i> 20/12/2021 EE/FS/Erode</p> <p><i>R. Karur</i> 20/12/21 JCEE(M)/Salem</p>	

IR No.: F.KAR0257/RS/DEE/KAR/2021 dated 05.07.2021



Tamil Nadu Pollution Control Board

IIR Details

1	a	Name of the Inspecting Officer	1. Er T.Mathivanan 2. Er K.Manivannan 3. Dr V.Gopalakrishnan 4. Er V.Jayakumar	JCEE(M),Salem EE FS,Erode DEE.Karur AEE ,Karur								
	b	District Office	Karur									
2		Date of Inspection	22/6/2021									
3	a	Name of the Industry	ASI COLOURS									
	b	Factory Address	M/s. Asi Colours , S.F.No.T.S.No.363, 364, Karur Village, Karur Taluk Karur District									
4	a	Category Classification	RED SMALL									
	b	Type of Industry	1040-Yarn / Textile processing involving any effluent/ emission generating processes including bleaching, dyeing, printing and colouring									
5		Name of the Occupier of the unit present during inspection	Mr Swaminathan ,Proprietor									
6	Products Manufactured:											
	a	Main Products Manufactured:										
		<table border="1"> <thead> <tr> <th>Main Product</th> <th>Quantity</th> <th>Unit</th> <th>Actual Production</th> </tr> </thead> <tbody> <tr> <td>Bleaching and Dyeing yarn fabrics</td> <td>84.37</td> <td>T/month</td> <td>-</td> </tr> </tbody> </table>			Main Product	Quantity	Unit	Actual Production	Bleaching and Dyeing yarn fabrics	84.37	T/month	-
Main Product	Quantity	Unit	Actual Production									
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By/Intermediate Product	Quantity	Unit	Actual Production									
7	a	Quantity of effluent in KLD:										
	1	Sewage	1.0									
	2	Trade effluent	100									
	b	Sources of trade effluent:	Bleaching and dyeing									
8	Performance of Sewage Treatment Plant:											
	Nature of Effluent	Sl. No	Components of STP	Nos. Dimensions(in meter)								
	Status of functioning:											
	Performance of Effluent Treatment Plant:											
	Collection Tank	1	6.75x5.30x4.55									

செய்தியை உறுதிப்படுத்தியுள்ளேன்
 திகதி: 07.07.2021..

15 Violation of conditions stipulated in the authorisation issued under the Hazardous Wastes(Management, Handling and Transboundary Movement) Rules, 2008 if any:

16 Details of Samples collected, if any and Date/Time of collection and point of collection:

Not collected.

17 Any other special information if any (May include observations/suggestions made during inspection on the performance of ETP/APC Measures).

The unit of M/s. Asi Colours , S.F.No.T.S.No.363, 364, Karur Village, Karur Taluk and Karur District has obtained consent of Board and the renewal of the consent is valid up to 31/3/2022.

The Hon'ble National Green Tribunal in the matter of OA No.: 257/2020 in its order dated 25.5.2021 has directed the Board to file a report . In this regard ,the Board has constituted a Committee in compliance with the Order and it has carried out inspection on 22/6/2021.

During inspection the following observation and shortfalls are observed in the unit,

1. The unit was not in operation.
2. The unit has provided jigger machines to carry out dyeing activities.
3. The ETP was in operable condition.
4. The RO systems II & III were not under operable condition.
5. It was observed that Nano permeate is being mixed with RO permeate.
6. The unit has not maintained and updated log book regarding operation of the ZLD system.
7. The Boiler ash was found dumped at the backside of the unit within the River Amaravathy.
8. The Boiler blow down was discharged directly into the River Amaravathy through a pipeline.
9. The sewage was also discharged without treatment into the River Amaravathy.

In view of the above, it is recommended that issue of direction for closure of the unit and disconnection of power supply under Section 33(A) of the Water (Prevention and Control of Pollution) Act, 1974 as amended may be considered by the Board.

TANGEDCO electricity connection of the unit coming under jurisdiction of AE/O&M/Urban/South/Karur.

The contact details of TANGEDCO

1. The Assistant Engineer/Urban/South/Karur
TANGEDCO 110/11KVSS Complex,
Kovai Road,Karur-639002.
E-Mail - trk001ae@tnebnet.org
2. The Superintending Engineer/Karur ,
TNEB Complex,
3,Kovai Road,Karur-639002
E.Mail - sekrr@tnebnet.org

V. [Signature] 5/9/2021
AEE/Karur

V. [Signature] 05/10/21
DEE/Karur

K. [Signature] 8/10/2021
EE/PS/Erode

R. [Signature] 5/5/21
JCEE(M)/Salem



TAMILNADU POLLUTION CONTROL BOARD

Proc.No.T5 /TNPCB /F.013801/KAR/W/2021-5, dated: 16.07.2021

Sub : TNPC Board – Industries – **M/s. Asi Colours, TS.No.363 & 364, Karur Town, Karur Taluk, Karur District** – Directions for closure and disconnection of power supply to the unit under Section 33 A of the Water (Prevention and Control of Pollution) Act, 1974 as amended – Orders issued – Regarding.

Ref: 1. Proc. No.F.0017KAR/RS/DEE/TNPCB/KAR/W&A/2017 dated: 17.04.2017
2. DEE/Karur, IR No.: F.KAR0257/RS/DEE/KAR/2021/ dated :-05.07.2021

Whereas, the unit of M/s. Asi Colours, TS.No.363 & 364, Karur Town , Karur Taluk, Karur District has obtained Renewal of Consent vide reference first cited, valid upto 31.03.2022 issued by DEE/Karur to carry out production of Bleaching and Dyeing of Yarn/Fabrics of 84.37 T/M and to generate effluent quantity of 100 KLD which is recycled to process with RMS.

Whereas, the Board has constituted a Committee in compliance of the Hon'ble National Green Tribunal order dated 25.05.2021 in the matter of O.A.No.:257/2020. The Committee comprising of JCEE(M)/Salem, DEE/Karur & EE/FS/Erode has carried out inspection of the unit on 23.06.2021 and the following were noted:-

1. During the inspection, the unit was not in operation.
2. The unit has provided jigger machines to carry out dyeing activities.
3. ETP was in operable condition.
4. RO systems II & III were not under operable condition & Nano permeate is being mixed with RO permeate.
5. The unit has not maintained and updated log book regarding operation of the ZLD system.
6. The Boiler ash was found dumped at the backside of the unit within the River Amaravathy.
7. The Boiler blow down was discharged directly into the River Amaravathy through a pipeline.
8. Sewage was also discharged without treatment into the River Amaravathy.

In view of the above, the committee has recommended that issue of direction for closure of the unit and disconnection of power supply under Section 33 A of the Water (Prevention and Control of Pollution) Act, 1974 as amended may be considered to the unit by the Board.

Now, therefore, in exercise of the powers conferred under Section 33 A of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988, it is hereby directed that the unit of **M/s. Asi Colours, TS.No.363 & 364, Karur Town, Karur Taluk, Karur District** shall be **closed with immediate effect** and that the electricity supply to the above said unit shall be **disconnected with immediate effect**.



TAMILNADU POLLUTION CONTROL BOARD

“This order of closure and disconnection of power supply is issued by the Chairman, as per the delegation of powers issued by the Board vide B.P. Ms. No. 9 dated: 11.03.1994”

The receipt of the proceedings shall be acknowledged.

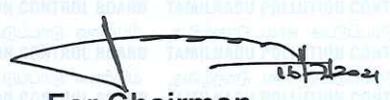
Sd/-
Chairman

To

The Proprietor
M/s.Asi Colours,
T.S.No.363, 364, Pasupathy Layout,
45, Gandhi Nagar, Chinnandankoil Road 1st Cross,
Karur – 639 001

Copy to

- 1) The District Collector,
Karur District, Karur
- 2) The Joint Chief Environmental Engineer(Monitoring)
Tamil Nadu Pollution Control Board,
No.9,4th Cross Street,
Brindhavan Road,
Fairlands, Salem - 636 016.
- 3) The District Environmental Engineer,
Tamil Nadu Pollution Control Board,
No 26, Ramakrishnapuram West,
Karur - 639 001 – for necessary action and report to the Board.
- 4) The Superintending Engineer,
TANGEDCO,
Karur Electricity Distribution Circle,
TNEB Complex,
3, Kovai Road,
Karur-639 002.
E Mail: sekrr@tnebnet.org
- 5) The Assistant Engineer (O&M),
Urban/South/Karur
TANGEDCO
110/11KVSS Complex,
3, Kovai Road,
Karur-639 002.
Email : trk001ae@ tnebnet.org
- ✓6) Technical file


For Chairman


16.07.2024

By Speed Post



TAMILNADU POLLUTION CONTROL BOARD

Proc.No. T5 /TNPCB /F.013801/KAR/EB/2021-6, dated: 16.07.2021

Sub: TNPC Board – Industries – Industries – **M/s. Asi Colours, TS.No.363 & 364, Karur Town , Karur Taluk, Karur District** – Direction for disconnection of power supply to the unit under Section 33 A of the Water (P&CP) Act, 1974 as amended– Orders issued -Reg.

Ref: 1. Board Proc. No. T5 /TNPCB /F.013801/KAR/W/2021-5, dated: .07.2021
2. Memo No. SE/Comm/EE 3/ Assistant Environmental Engineer -1/TNPC Bd/D 320/2002 dt.4.12.02 from the Chairman, TNEB to Superintending Engineers of all electricity Distribution Circles, TNEB

Tamil Nadu Pollution Control Board enforces the provisions of Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981. As per section 33 A of the Water (Prevention & Control of Pollution) Act, 1974 as amended in 1988 & section 31 A of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 the Board is empowered to issue directions for closure, prohibition or regulation of any industry and stoppage of electricity or any other services. Instructions have been issued by Tamil Nadu Electricity Board in this regard vide reference second cited.

In this connection, a copy of Board's proceedings first cited is enclosed in which directions have been issued under section 33 A of the Water (Prevention & Control of Pollution) Act, 1974 as amended for closure of the unit of **M/s. Asi Colours, TS.No.363 & 364, Karur Town , Karur Taluk, Karur District**, in view of the reasons stated therein.

It is hereby further directed in exercise of the powers conferred under Section 33 A of the Water (Prevention & Control of Pollution) Act, 1974 as amended that, the power supply to the unit of **M/s. Asi Colours, TS.No.363 & 364, Karur Town, Karur Taluk, Karur District** shall be disconnected with immediate effect.

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

Encl. As above.

**Sd/-
Chairman**

To

- 1) The Superintending Engineer,
TANGEDCO,
Karur Electricity Distribution Circle,
TNEB Complex,
3, Kovai Road,
Karur-639 002.
E Mail: sekrr@tnebnet.org



TAMILNADU POLLUTION CONTROL BOARD

- 2) The Assistant Engineer (O&M),
Urban/South/Karur
TANGEDCO
110/11KVSS Complex,
3, Kovai Road,
Karur-639 002.
Email : trk001ae@ tnebnet.org

Copy to

- 1) The District Collector, Karur District, Karur
- 2) The Joint Chief Environmental Engineer(Monitoring)
TNPCB,
No.9,4th Cross Street,
Brindhavan Road,
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TNPCB,
No 26, Ramakrishnapuram West,
Karur – 639 001 – for necessary action and report to the Board.
- 4) The Proprietor
M/s.Asi Colours,
T.S.No.363, 364, Pasupathy Layout,
45, Gandhi Nagar, Chinnandankoil Road 1st Cross,
Karur – 639 001
- ✓ 5) Technical file

For Chairman

(Signature)
16.07.2024



Report No.DEL/DGL/188

Tamil Nadu Pollution Control Board
DISTRICT ENVIRONMENTAL LABORATORY, DINDIGUL-624 004.

REPORT OF ANALYSIS

1. Name and Address of the Sender : The District Environmental Engineer,
Tamil Nadu Pollution Control Board,
Karur.
2. Date and time of Collection : 23.07.2021 at 12.45 PM to 12.55 PM.
3. Date and time of Receipt at Laboratory : 23.07.2021 at 04.50 PM.
4. Condition of Seals, Fastening and Container : Sealed and Fastened Condition in
Polythene Carbuoy of 2.5 Lit x 2.
5. Nature and Number of Samples : Two Nos. of Sewage Samples.

DEE Code No.	Lab Code No.	Point of Collection	T/UT/PT/NM
CPCB 2/DEE/KAR Do - Bottle No 100	385	Inlet of STP	Untreated
CPCB 3/DEE/KAR MLSS - Bottle No 618	386	Outlet of STP	Treated

S. NO	PARAMETERS	385	386
1	pH	7.33	7.56
2	Total Suspended Solids (mg/l)	52	16
3	BOD 3 days at 27°C (mg/l)	236	95
4	Chemical Oxygen Demand (mg/l)	544	232
5	Dissolved Oxygen (mg/l)	1.3	6.70
6	Ammonical Nitrogen (as N) (mg/l)	30.8	19.6
7	Total Nitrogen (mg/l)	0.50	0.29
8	Residual Sodium Carbonate (mg/l)	- ve	- ve
9	Sodium Adsorption Ratio [SAR]	7.665	6.916
10	Fecal Coliform (mg/l)	*	*

* Fecal Coliform - Facility is not available.

End of the Report.

VSN
06/08/2021
Jr.Env.Scientist

S. S. Srinivasan
Deputy Chief Scientific Officer,
DEL, TNPCB, DINDIGUL.

Annexure - 9

பொதுப்பணித்துறை / நீர்வள ஆதாரத் துறை

அனுப்பநர்
பொறி.மு.இராஜகோபால், டி.சி.இ.,
இளம் பொறியாளர், பொபது.நீஆது,
அமராவதி வடிநிலப்பிரிவு - 1,
கரூர்.

பெறநர்
செயல் அலுவலர்,
இந்து அறநிலைய துறை,
பசுபதி ஈஸ்வரன் கோவில் அலுவலகம்,
கரூர்.

AEE	27/11/2020
ASST	27/11/2020

க. எண் : கோ- 4/ இ.பொ. 1/ 2020/ நாள் : 27.11.2020

அய்யா,

பொருள் : கரூர் நகராட்சிக்குட்பட்ட அமராவதி ஆற்றில் சின்ன ஆண்டான்கோவில் பகுதியில் இருந்து சட்ட விரோதமாக 15 அடி அகலத்திற்கு 5 அடி ஆழத்திற்கு பறித்து கரூர் நகராட்சி சாக்கடை கழிவுகளை கலப்பதற்கு மேற்கொண்ட வருகின்றனர். மேற்படி அமராவதி ஆற்றில் சட்ட விரோதமாக வாய்க்கால் அமைக்க பறித்து வரும் கிட்டாச்சி எந்திரத்தையும், அதனை ஒட்டுபவர் மீது நடவடிக்கை எடுத்து ஆற்றில் பறிப்பதை தடுக்ககோரி மனு - தொடர்பாக.

பார்வை : திரு. ந சண்முகம், த/பெ. நடராஜன், கரூர் அவர்களின் கடித எண் : 25.11.2020

பார்வையில் கண்டுள்ள கடிதத்தில், திரு. ந. சண்முகம், த/பெ. நடராஜன், கரூர் அவர்கள் அமராவதி ஆற்றில் சின்ன ஆண்டான்கோவில் தொடங்கி, அமராவதி ஆற்றில் 15 அடி அகலத்திற்கு வாய்க்கால் போல் பறித்து வருகின்றனர். அமராவதி ஆற்றில் நகராட்சி கழிவுகளை கலப்பதற்காக வாய்க்கால் பறிப்பதை உடனடியாக நிறுத்த நடவடிக்கை மேற்கொள்ளுமாறு விண்ணப்பம் வழங்கியுள்ளார்.

மனு தொடர்பாக 27.11.2020 அன்று தள ஆய்வு மேற்கொள்ளப்பட்டது. அப்போது வண்டி அம்புறப்படுத்தப்பட்டுள்ளது தெரியவந்தது. மேலும் அங்கு இருந்த பொது மக்களிடம் விசாரித்த போது 04.12.2020 அன்று நடக்கஇருக்கும் ஈஸ்வரன் கோவில் சும்பா அபிசேகத்திற்கு பறிக்கப்பட்டது தெரிய வந்தது. எனவே இனி வருகாலங்களில் அமராவதி ஆற்றில் கோவிலுக்காக ஏதும் பணிகள் மேற்கொண்டால், உரிய முன் அனுமதி பெற்று பணிகளை செய்யுமாறு கேட்டுக்கொள்ளப்படுகிறது.

இளநிலை பொறியாளர், பொபது.நீஆது,
அமராவதி வடிநிலப்பிரிவு - 1,
கரூர்.

நகல் : உதவி செயற்பொறியாளர், பொபது., நீஆது., அமராவதி வடிநில உபகோட்டம் எண்.4, கரூர் அவர்களுக்கு தகவலுக்காகவும், தக்க மேல் நடவடிக்கைக்காகவும் பணிந்து அனுப்பப்படுகிறது.

இளநிலை பொறியாளர், பொபது.நீஆது,
அமராவதி வடிநிலப்பிரிவு - 1