

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

Original Application No. 19 of 2013 (SZ)

Original Application No. 224 of 2016 (SZ)

Original Application No. 248 of 2016 (SZ)

Meenavargal Membattu Sangam  
Rep. K.R. Selvaraj Kumar  
Meenavar Nala Sangam,  
Chennai.

...Applicants

**Versus**

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

..Respondent(s)

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



**BEFORE THE NATIONAL GREEN TRIBUNAL  
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**With**

Meenava Thanthai  
K.R. Selvaraj Kumar

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The Chief Secretary,  
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K.R Selvaraj Kumar,  
Meenavar Nala Sangam

**Versus**

The State of Tamil Nadu,  
Rep. by Secretary to Government,  
Chennai and Others

...Respondent(s)

**COMPLIANCE REPORT FILED ON BEHALF OF THE  
RESPONDENT -TAMIL NADU POLLUTION CONTROL BOARD.**

I, J.Josephine Sahayarani, Daughter of Thiru.Jesu Rajan, Christian aged about 57 years, having my office at No.76, Mount Salai, Guindy, Chennai-32, 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 Report on behalf of the

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

*J. Josephine Sahayarani*  
9/11/2023

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



V. The State Pollution Control Board is directed to monitor the units periodically to ascertain marine discharge is meeting the standards or not till the alternate method of Zero Liquid Discharge system is introduced or till it achieves the standards provided and if there is any deficiencies found, then they are directed to initiate action against those units which are not conforming to the standards and take action against those units including imposition of Environmental Compensation for the violations and damage caused in accordance with law.

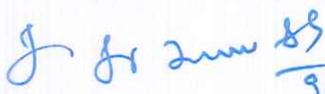
VI. The Committee appointed by the Tribunal, namely, Central Pollution Control Board, State Pollution Control Board and National Institute of Ocean Technology, Chennai is directed to conduct the long-term study for the remediation process after assessing the damage caused to the environment and assess the environmental compensation for the damage caused to the environment against the units responsible for the same including the units involved in these cases and also suggest the remedial measures to be carried out by the units including the units involved in these cases and the Committee is directed to file their periodical report regarding the long term study once in six months before this Tribunal 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 the expenses for carrying out this study has to be shared by M/s Manali Petrochemical Limited, M/s Tamil Nadu Petrochemical Limited and M/s Kothari Petrochemical Limited in proportion to the quantity of marine discharge made by them, on getting intimation from the Central Pollution Control Board in this regard and once the study is completed and recommendations are made, the units whom found responsible including the units in these cases are directed to implement the same in its letter and spirit.

3. It is respectfully submitted that in pursuant to the said NGT order dated 22.03.2022, in O.A No.19 of 2013 with O.A No.224 of 2016 with O.A No.248 of 2016, the compliance report is submitted below:

*J. S. Suresh*  
9/11/2023

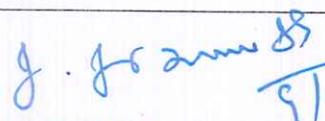
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Compliance of directions issued by the Hon'ble NGT(SZ) in its final order dated 22.03.2022 in OA.No.19 of 2013, OA.No.224 of 2016 and OA.No.248 of 2016.		
Sl. N	Recommendation	Compliance status
II	M/s Manali Petrochemical Limited, M/s Tamil Nadu Petrochemical Limited and M/s Kothari Petrochemical Limited are directed to pay an interim Environmental Compensation of Rs.2 Crore, Rs. 1 Crore and Rs. 10 Lakh respectively and that amount will have to be paid to the Tamil Nadu Pollution Control Board within a period of three months from today and if the amount is not paid within that time, then the Tamil Nadu Pollution Control Board is directed to initiate recovery proceedings against these units for recovery of the amount by making a request to the District Collector to initiate proceedings under the Revenue Recovery Act and realise the amount in accordance with law.	<p><b>Complied</b></p> <p>i. The unit of M/s. MPL has remitted an interim Environmental compensation of Rs.2 Crores to Tamilnadu Pollution Control Board as directed by the Hon'ble NGT vide Cash Receipt No. 134875 dated 10.05.2022</p> <p>ii. The unit of M/s. TPL has remitted an interim Environmental compensation of Rs.1 Crore to Tamilnadu Pollution Control Board as directed by the Hon'ble NGT vide CR No. 134876 dated 10.05.2022.</p> <p>iii. The unit of M/s. KPL has remitted an interim Environmental compensation of Rs.10 lakhs to Tamilnadu Pollution Control Board as directed by the Hon'ble NGT vide CR No. 134859 dated 02.05.2022.</p>
III	M/s Manali Petrochemical Limited, M/s Tamil Nadu Petrochemical Limited and M/s Kothari Petrochemical Limited are directed to implement the recommendations made in the various reports of the Joint Committee in its letter and spirit and the State Pollution Control Board is directed to monitor the same and if there is	Recommendations made in various reports of the Joint Committee and their compliance status is attached as Annexure A

  
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	any noncompliance, then they are directed to take appropriate action against those units which are not carrying out the same in its letter and spirit in accordance with law.	
IV	M/s Manali Petrochemical Limited, M/s Tamil Nadu Petrochemical Limited and M/s Kothari Petrochemical Limited are directed to appoint a consultancy, namely, NIOT, Chennai and NEERI to conduct the study regarding the feasibility of introducing ZLD for discharge of effluent generated within their unit to avoid marine discharge to protect marine environment in a phased manner as suggested by the Committee. That expense will have to be shared by them for this purpose in proportion to the quantity of marine discharge made by them. The Study can be conducted under the supervision of the Central Pollution Control Board and State Pollution Control Board.	<p><b>Being Complied</b></p> <p>As directed by the Honourable NGT(SZ), all the three units (M/s. TPL, M/s. MPL &amp; M/s. KPL) have jointly appointed a consultancy to conduct the study regarding the feasibility of introducing ZLD for discharge of effluent generated within their unit to avoid marine discharge to protect marine environment in a phased manner.</p> <ol style="list-style-type: none"> <li>i. The units had approached the NIOT and NEERI to carry out the ZLD feasibility study for the treated effluent.</li> <li>ii. As reported by the unit authorities, the NIOT has expressed their inability to take up the ZLD feasibility study, vide their letter dated 11.04.2022 since they are not expertise in the field. (Copy enclosed).</li> <li>iii. The unit authorities have reported that NEERI has submitted the draft proposal to carry out ZLD feasibility on 08.06.2022.</li> <li>iv. The unit authorities have reported that NEERI has informed vide mail dated 12.10.2022, that the validation trials are still being carried out at their laboratory and the final proposal will be submitted after successful validation of the trials..</li> <li>v. The units have informed that upon receipt of a technically feasible</li> </ol>

		<p>proposal from NEERI, work order will be issued to NEERI.</p> <p>vi. On receipt of the submission of the proposal from NEERI, the same will be reviewed by the CPCB and TNPCB.</p>
V	<p>The State Pollution Control Board is directed to monitor the units periodically to ascertain marine discharge is meeting the standards or not till the alternate method of Zero Liquid Discharge system is introduced or till it achieves the standards provided and if there is any deficiencies found, then they are directed to initiate action against those units which are not conforming to the standards and take action against those units including imposition of Environmental Compensation for the violations and damage caused in accordance with law.</p>	<p><b>Complied.</b></p> <p>The said units are monitored periodically and samples are collected from the disposal locations. Consolidated report of the samples collected from the location where it is further disposed into the sea is furnished in the Annexure B-I.</p> <p>The ROA of the samples collected reveals that the parameters analysed are generally within the standards prescribed by the Board except on one occasion that M/s. KPL exceeded the limit of sulphate during the month of March 2022, the said unit has been instructed to operate and maintain the ETP to achieve the standards prescribed by the Board. Annexure B-II</p>
VI	<p>The Committee appointed by the Tribunal, namely, Central Pollution Control Board, State Pollution Control Board and National Institute of Ocean Technology, Chennai is directed to conduct the long-term study for the remediation process after assessing the damage caused to the environment and assess the environmental compensation for the damage caused to the environment against the units responsible for the same</p>	<p><b>Being complied</b></p> <p>All the three units (M/s. TPL, MPL &amp; KPL) have jointly appointed NIOT to carry out the long term study. Based on that the NIOT initiated the long term study and furnished the marine impact assessment study report for the period January 2022 to March 2022. Copy enclosed as Annexure C.</p> <p>From the report the following inference are reported;</p> <p>i. The Physiochemical water quality parameters shows negligible changes Compared to the baseline values of NIOT 2015 report.</p>

  
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including the units involved in these cases and also suggest the remedial measures to be carried out by the units including the units involved in these cases and the Committee is directed to file their periodical report regarding the long term study once in six months before this Tribunal 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 the expenses for carrying out this study has to be shared by M/s Manali Petrochemical Limited, M/s Tamil Nadu Petrochemical Limited and M/s Kothari Petrochemical Limited in proportion to the quantity of marine discharge made by them, on getting intimation from the Central Pollution Control Board in this regard and once the study is completed and recommendations are made, the units whom found responsible including the units in these cases are directed to implement the same in its letter and spirit.

ii. Variation in Nitrate Nitrogen was observed and the reason may be due to the discharge from other sources such as sewage, flushing from River Coovum, River Adyar and Ennore Creek.

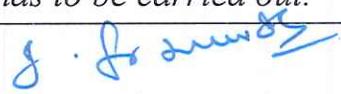
iii. The present observations do not indicate any significant variation and in general conforms with the coastal water quality standards for SW-IV, the observations must be validated with the effluent quality of industrial discharge as per CPCB norms. There is a likelihood of influence of seasonal circulation of currents in the North Chennai Coastal waters and synergistic impacts of other sources in the areas on the benthic and biology, it is suggested to conduct whole effluent toxicity studies. These tests are expected to reveal the influence of other possible chemicals not in the regulatory control influence the sustainability of marine biota (Fishes mollusks, etc.).

iv. The next study period is proposed to be carried out during January/February 2023.

It is submitted that the joint committee members Thiru.Kiran A S, Scientist-E, NIOT, Chennai, Thiru.R.Rajkumar, Scientist D, CPCB, Chennai & Dr.D.Vasudevan, JCEE(M), TNPCB, Chennai had a meeting on 09.12.2022 and the following suggestions are arrived at.

Committee suggestions:

- i. As recommended in the committee report, Pre-monsoon study has to be carried out.

  
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		ii. During the study, the NIOT may co-ordinate with TNPCB to identify the other sources and samples have to be collected simultaneously while carrying out the marine water sampling.
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## ANNEXURE-A

D Recommendations of Joint Committee Report submitted on October 28/ 2020		
Short Term:		
Sl.No	Recommendation	Compliance status
1	At present, M/s KPL is discharging the RO reject into the Marine, in order to reduce the quantum of marine discharge as well as for use of raw water, possibilities shall be explored by M/s MPL or M/s TPL for utilizing RO reject generated from M/s. KPL in their process.	The units reported that the reuse of RO reject from M/s.KPL is not feasible due to the following reasons; The sample taken from KPL sea discharge point during Oct '20. The results of the effluent analysis reveal high chlorides, TDS, Conductivity, and Silica. The effluent with above characteristics is not suitable for MPL Propylene Oxide (PO) process. This will affect the process, plant operation, equipment's and product specification. It is further reported by the unit authorities that due to the presence of chlorides, Ammoniacal nitrogen and Sulphate content in the R.O reject, the same is not suitable to utilise in the process.
2	If the RO Reject found suitable for utilization, then the discharge of M/s KPL shall be stopped and sent to M/s MPL or M/s TPL.	Not Applicable

  
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3	Action plan on phase wise revamping of treatment units of the ETP in M/s MPL Unit I and M/s TPL (all three plants HCD, LAB & ECH – PO) shall be submitted, since physical damages found during the visit. Action plan shall be submitted within a month.	<b>Complied.</b> Both the units have carried out repair works of the damaged treatment units and assured to continue the same.
4	Since M/s TPL is reusing the treated effluent generated from HCD & LAB plant in the ECH – PO plant, online flow meters shall be installed at HCD & LAB plant to quantify the utilization of treated effluent. Moreover, the online effluent monitoring system installed for the parameters pH, TSS, COD, BOD etc. at HCD/LAB plant shall be relocated to the common discharge pipeline after confluence of all treated effluent and installation of display board showing effluent quality to the general public.	<b>Complied</b> Online effluent monitoring system for the parameters pH, TSS, COD, BOD installed at the LAB Plant - ETP is relocated to the common discharge pipeline, after confluence of all treated effluent and the data is connected to display board.
e.	In order to assess the sea water quality, Continuous Marine Water Quality Monitoring system shall be installed at discharge point for the parameters Temperature, Conductivity, Salinity, Turbidity and Total Dissolved Solids (TDS), Dissolved Oxygen (DO), pH, Chlorophyll, fluorescent Dissolved Organic Matter (fDOM) and phycoerythrin-a pigment of blue-green algae etc. The recorded data shall be shared to NIOT & TNPCB for assessing the marine quality.	<b>Being Complied</b> M/s. MPL, who manages the common discharge line that disposes the treated effluent from all three plants (TPL, MPL and KPL) to sea, has taken initiative to install Continuous Marine Water Quality Monitoring system at discharge point and recorded data will be shared to TNPCB. As reported by the units the cost of the system will be shared by M/s. MPL, TPL and KPL and purchase order was placed to M/s. Norinco Pvt. Ltd. The target date of completion is by March 2023.

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*J. A. Anand*  
7/1/2023

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5	MPL plant I & II and M/s TPL: A pilot scale study shall be carried out with DISC membrane or any other suitable technology for reducing the discharge of treated effluent in to the sea. Possibilities shall also be explored for achieving complete or partial ZLD. Action plan shall be submitted within a month.	<p><b>Being Complied</b></p> <p>i. The unit authority has reported that NEERI has informed vide mail dated 12.10.2022, that the validation trials are still being carried out at their laboratory and the final proposal will be submitted after successful validation of the trials.</p> <p>ii. The units have informed that upon receipt of a technically feasible proposal from NEERI, work order will be issued to NEERI.</p>
6	Calibration of the flow meters installed in the discharge pipeline shall be carried out periodically and ensure no difference in each of the flow meters.	<p><b>Complied</b></p> <p>Flow meters are being calibrated periodically, as per ISO guidelines to ensure no difference in flow meters and records are being maintained.</p>
<b>Long Term:</b>		
1.	NIOT has suggested long term study in both the report (2015 & 2020) to assess the marine water quality and flora & fauna marine life as well as indicated the pollution from other sources also. So, it is suggested to have a comprehensive impact assessment study to assess the quality for a period of five years (twice in a year), in which the impact & sources of pollution shall be identified. Accordingly, remedial measures shall be suggested.	<p><b>Being Complied</b></p> <p>As directed by the Honourable NGT(SZ), all the three units (M/s. TPL, M/s. MPL &amp; M/s. KPL) have jointly appointed a consultancy to conduct the study regarding the feasibility of introducing ZLD for discharge of effluent generated within their unit to avoid marine discharge to protect marine environment in a phased manner.</p> <p>i. The units had approached the NIOT and NEERI to carry out the ZLD feasibility study for the treated effluent.</p>

*J. J. S. S. S.*  
9/1/2023

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		<p>ii. As reported by the unit authorities, the NIOT has expressed their inability to take up the ZLD feasibility study, vide their letter dated 11.04.2022 since they are not expertise in the field. (Copy enclosed as Annexure-D).</p> <p>iii. The unit authorities have reported that NEERI has submitted the draft proposal to carry out ZLD feasibility on 08.06.2022.</p> <p>iv. The unit authorities have reported that NEERI has informed vide mail dated 12.10.2022, that the validation trials are still being carried out at their laboratory and the final proposal will be submitted after successful validation of the trials.</p> <p>v. The units have informed that upon receipt of a technically feasible proposal from NEERI, work order will be issued to NEERI.</p> <p>On receipt of the submission of the proposal from NEERI, the same will be reviewed by the CPCB and TNPCB.</p>
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*g. for 2000 85*  
*9/11/2022*

JOINT CHIEF ENVIRONMENTAL ENGINEER  
TAMIL NADU POLLUTION CONTROL BOARD  
No.76, MOUNT SALAI, GUINDY,  
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Under the above circumstances, it is humbly prayed that this Hon'ble National Green Tribunal (Southern Zone) at Chennai may be pleased to pass such further or other orders as this Hon'ble tribunal may deem fit and proper in the facts and circumstances of this case and thus render justice.

*J. Josephine Sahayarani*  
9/11/2023  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
TAMIL NADU POLLUTION CONTROL BOARD  
No.76, MOUNT SALAI, GUINDY,  
CHENNAI - 600 032.

**BEFORE ME**

**VERIFICATION**

I, J. Josephine Sahayarani, Daughter of Jesu Rajan, working as Joint Chief Environmental Engineer, Tamil Nadu Pollution Control Board, Chennai-32 do hereby submit that the contents of the above report are true to the best of my knowledge through records.

*J. Josephine Sahayarani*  
9/11/2023  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
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POLLUTION CONTROL BOARD**

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

**Date:25.01.2023.**

**Date of hearing on:10.02.2023.**

