

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

**O.A.No.19 of 2013,
O.A.No.248 of 2016 and
O.A.No.224 of 2016**

Meenavargal Mempattu Sangam

..Applicant

-Vs-

The Chief Secretary,
Government of Tamil Nadu,
Chennai and others

..Respondents

**OBJECTIONS FILED BY THE 5th (O.A. No 19) & 7th (O.A. No 248) & 8th (O.A.No.224)
RESPONDENT.**

This Respondent submits as follows: -

1. This Respondent had gone through the report of the Committee dated 28.10.2020 and the common objections/submissions on behalf of the Applicant to the Committee Report. The Respondent herein denies the allegations and the submissions made on behalf of the Applicant to the said Committee Report except those which are submitted as hereunder.
2. This Respondent submits that its effluents do not contain any hazardous substances or toxic metals. Both the units of the Respondent are having effluent treatment plants since inception and are discharging only treated effluent into the sea. The reports of the Tamil Nadu Pollution Control Board for MPL Unit I and II enclosed as **Annexures 1A** and **1B** clearly show that there are no untreated effluent being discharged by the Respondent. The SGS Lab report is also enclosed as **Annexure 1C**. Due to the presence of high chlorides (similar to sea water) in the effluent, errors were being observed in COD-BOD analysis and in fact the analysis could not be carried out sometimes due to the high chloride interference which has also been specified in the reports by way of remarks. (**Annexures 1A,1B & 2**)
3. This Respondent submits that the claim of the Applicant that the application was filed in view of the issue of discharging untreated hazardous and toxic effluents into the

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sea by the Respondent Industries MPL Unit I and Unit II and TPL is totally incorrect. From the Reports it is established that the effluent of MPL does not contain any toxic elements. In case of TPL, the raw materials (common salt) and products (caustic soda, chlorine) are inorganic in nature and no biodegradable organics is generated from the process. Effluent mainly contains sodium chlorides. Hence, COD present in the effluent will not be more than 100 mg/L at any point of time. The reason for high BOD/COD in the outlet could be erroneous analytical result/interference due to high TDS/chlorides. Outlet sample taken by TNPCB during March 2016, April 2016 and May 2016 shows that BOD values are less than prescribed standards (100 mg/l) and COD not analysed due to interference. TNPCB ROA is enclosed. Also, many industries discharge effluent into the sea. The comparison of sea water studies between 2015 and 2020 submitted show that there has been reduction in the presence of toxic elements. Since there are no toxic elements in the effluent of MPL & TPL, the above indicates that there has been huge interference of other industrial discharges, which of course have been controlled effectively by TNPCB/CPCB resulting in reduction of toxic effluent discharges into sea in the past five years.

4. Further, the evaluation of modified COD determination method carried out by various institutions and NABL accredited laboratories are enclosed as **Annexure 5**. This Respondent submits that the effluent of MPL does not contain any hazardous substances and they are only discharging treated effluent to the sea which can be clearly seen by the **Annexures 1A and 1B**. It was noticed that due to presence of high chlorides in the effluent, there were abnormal variations in the results and errors observed in COD-BOD analysis and the analysis could not be carried out sometimes. It was observed that the method followed for COD-BOD analysis was a standard one, without regard to the type of the effluent. In the given case MPL's effluent contain huge amount of calcium chloride, which interfered with the result and so there had been abnormal variations in the results and at times, analysis could not be carried out. So, based on discussions with experts and also the CPCB it was viewed that it may not be correct to adopt a general method for testing the effluents of MPL, disregarding the presence of calcium chloride, which is capable of interfering in the results. Hence, it was proposed that a modified method needed to be developed for testing such samples with high calcium chloride content. So, the Respondents approached NATIONAL ENVIRONMENTAL ENGINEERING RESEARCH INSTITUTE (NEERI), a constituent of CSIR. NEERI is a renowned organization with nation-wide presence with its five zonal laboratories at Chennai, Delhi, Hyderabad, Kolkata and Mumbai. The focus of NEERI includes "To conduct research and developmental studies in environmental science and engineering and to render assistance to the industries of the region, local bodies, etc. in solving the problems of environmental pollution through S&T intervention". NEERI

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conducted research on the above and concluded that the high calcium chloride did interfere with the test results of COD-BOD. It also suggested ways to overcome the hindrance. (Copy of NEERI Report is given in **Annexure 3**. The observations and findings of NEERI were submitted to CPCB. Based on the said findings, many trials were conducted in CPCB Regional Laboratory, Bangalore jointly by CPCB and MPL. The primary aim of the study was to retain the methodology but avoid the interference of calcium chloride in the test results. For this purpose, samples of varying volume using different types of stir and catalysts were deployed. After studies for about few months, a variant (more shaking) to the existing methodology for masking the calcium chloride's interference was established and approved by CPCB (**Annexure 4**). In the light of the above, the Respondent wishes to reiterate that its effluents do not contain any hazardous or toxic substances and the high COD/BOD values in the earlier reports were primarily due to the presence of huge amount of calcium chloride. Therefore, it is denied that the effluent of MPL damaged the sea in any manner whatsoever.

5. The allegation of the Applicant that the Respondent's effluent has affected the hamlets located in and around the industries and its inhabitants is stoutly denied and are merely pigments of imagination of the Applicant. All these allegations are unsubstantiated, and no proof has been submitted by the Applicant to establish that the effluent of MPL has deteriorated the quality of sea or eco system or has affected the fishing hamlets or its inhabitants. It may be pertinent to note that the main contributor COD/BOD in the effluent is Propylene Glycol which is not a bio accumulator and does not have any harmful substances that affect fish. This has been established in the Reports of OECD/PG-MSDS. The OECD report and MSDS are enclosed as **Annexure 6A and 6B** respectively. It may also be relevant to note that all the statutory authorities have been visiting and monitoring the units regularly and samples are being taken periodically. In this regard affidavits have been filed by the Regulator, earlier is attached as **Annexure 7**.

6. With regard to the averments of the Applicant in Para 7, the Respondent submits that the suggestions of the Expert Committee appointed by this Hon'ble Bench in 2014 have been duly complied with by the Respondent. The details of the suggestions of the Committee, compliance by the Respondent and inspection report submitted by NGT Appointed committee are given in **Annexure 8A, 8B, 12A & 12 B**, respectively. The Respondent submits that though in the Report of the Committee the BOD/COD values were higher than the norms, as explained above the same is mainly due to the presence of residual Propylene Glycol, an additive used in medicinal and food preparations. When mixed with other ingredients, PG can form a homogeneous mixture without affecting the properties of the substances that are required to react. The Food

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and Drug Administration Department has recognized PG as a safe additive for human consumption, especially for pharmaceutical and food formulations. In addition to the above, PG is also used as moisturizer in cosmetic products and as a dispersant in fragrances. Hence, in spite of the higher COD/BOD values, the treated effluent let into the sea has not been harmful either to the sea or the other marine species. All the marine Impact Assessments carried out have not reported any adverse comment on the effluents of the Respondent discharged into the sea. In fact, these reports have categorically concluded that the normal deterioration noticed in the sea cannot be attributed to MPL. The reports of the various agencies have been enclosed as **Annexures 9A,9B,9C and 9D** respectively. Further, the study by Anna University has confirmed about the adequacy of the effluent treatment plant based on a study carried out during February 2019. The adequacy reports for Unit I and II are enclosed as **Annexure 10A and 10B**, respectively. Anna University had carried out a performance evaluation of the effluent treatment plant again in June 2020 and the reports are annexed as **Annexures 11A and 11B**, respectively.

7. With regard to the allegation of the Applicant in paragraphs 8 and 9 that the Respondent has committed an irreversible damage to the coastal ecosystem and that traces of hazardous/toxic substances were found, it is submitted that the effluent does not contain any hazardous substances and toxic metals. Further, as explained above due to the presence of high chlorides in the effluent, errors were observed in COD/BOD analysis in the past and also it is submitted that propylene glycol which contributes to COD/BOD in the effluent is not bio-accumulated and not harmful.

8. It is a blatant misstatement by the Applicant in Paragraph 10 that the Respondent has not implemented any of the recommendations of the 2014 Report. The Report contained certain specific and general recommendations for environment safety and also other short term and long-term recommendations. The Respondent confirms that it has acted upon all the recommendations other than the long-term ones. This has also been verified by the Joint Committee appointed by the Hon'ble Bench in February 2020 and confirmed in the Report submitted on 28th October 2020. As regards the long-term recommendations viz., change of technology and also zero liquid discharge it has been found that both these were not viable and detailed explanations had been furnished in the past. To explain briefly, change of process would not be possible for the size of the present plant and if implemented it would be for a very large capacity involving a very huge capital outlay (**Annexure -13**). It is not possible to implement zero liquid discharge, on similar considerations. Various studies were carried out through the Aquatec and CECRI for the above purposes and based on their advice the above conclusions have been arrived at. Copies of study conducted by Aquatec & CECRI and

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the proposals received from NEERI and RO Chem for carrying out study are enclosed as **Annexure 14**.

9. With regard to the allegations of the Applicant in 13 it is denied that this Respondent discharges untreated effluent into the sea. It is also denied that the effluent contains any hazardous substance and there has been no such observation in the Report cited by the applicant. The allegation that the Recommendation of the 2014 Expert Committee have not been complied with is also a blatant misstatement by the Applicant, given that the compliances have been verified and confirmed by the Joint Committee in its Report.

10. The allegation of the Applicant in Para 14 that the Respondent has not complied with the further recommendations of the Joint Committee appointed by this Hon'ble Bench in the year 2016 is denied. The details of the recommendations compliance by the Respondent are given in **Annexures 15 A, 15 B (MPL) & Annexure-I (TPL)**, respectively. Further it is submitted that the compliance status has been verified by the Joint Committee of 2020 and confirmed in interim and final reports submitted during June 2020/October 2020. Copies of the Reports are enclosed as **Annexures 12 A and 12 B**.

11. This Respondent submits that the values provided by the Applicant in paragraphs 16 & 20 are not correct and seems to be an attempt of the applicant to mislead this Hon'ble Bench by interchanging the values in the affidavit and has shown the same as deviations whereas the original report indicates that the effluent parameters are well within the limits. Proof for the same is enclosed as **Annexure 16 & 19**.

12. The allegation of the Applicant that the inspection by the Joint Committee appointed by the Hon'ble Bench on 8-2-2020 was not proper is denied. The Joint Committee made a surprise visit and carried out thorough inspection during which Representatives of the Applicant was present throughout. It may be pertinent that the Applicant's Representative had not raised any objection to the manner in which the inspection was carried out. It is submitted that the issues now raised by the Applicant in para 21 are purely an afterthought to somehow keep the matter alive and thereby harass the industries with ulterior motives.

13. It is submitted in para 22, that the Committee had taken samples at individual units and as well as at common discharge points. It is incorrect to state that the report of the Committee does not state the accurate locations of the samples collected by the Committee as done by earlier committee appointed by this Hon'ble Tribunal. The

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samples was taken at the inlet of the Bio reactor which is nothing but the outlet of cooling water sump. ETP inlet and outlet samples were also recorded. Sample point 11 refers to the sample taken in Ennore Highway and included in the Report. Again, it may be relevant that the Representative of the Applicant was present when all the samples were collected but had not raised any objection either during or after the inspection. The Applicant has waited for more than 18 months to find out that the sample collection was inadequate, which it is not as explained above. It again brings out the designs of the Applicant to somehow drag the proceedings.

14. With regard to the allegation of the Applicant in Para 23, the Respondent is not privy to the information on the testing and other matters. In any case the Respondent wishes to humbly submit that the Applicant is not competent to question the conduct of the Expert Committee appointed by the Bench after due consideration of the expertise of its composition. It is further submitted that the Applicant, out of frustration that its allegations could not be substantiated has chosen a different path to somehow keep the case pending by seeking appointment of another Committee, which the Hon'ble Bench may be pleased to summarily reject.

15. With regard to the allegations of the Applicant in Para 24, regarding presence of heavy metals in the sea, it is submitted that MPL's effluents do not contain heavy metals. Also quantum of Manganese has been shown to be Below Detection Limit as per the Report of SGS, copy enclosed in **Annexure 1C**. Further the value of the manganese reported is well within the prescribed norms.

16. With regard to the observation of the Applicant in Para 25 on the contents of the Report of the 2020 Joint Committee vis a vis the earlier Reports, we wish to submit that the Joint Committee was appointed by the Hon'ble Bench with certain specific TORs, which in the opinion of the Respondent have been duly covered by the Committee in its Reports. The Bench specified certain items to be covered by the new EC, which have been duly complied with by the EC. So, it is the humble view of the Respondent that it is not proper for the applicant to suggest that the EC ought to have looked into aspects beyond its scope. We respectfully submit that the Applicant is not competent to suggest to the Hon'ble Bench as to what it ought to have prescribed to the Joint Committee. Further making such a suggestion after nearly 18 months seems to be a ploy by the Applicant to somehow drag the proceedings as he has not been able to provide any proof for his allegations against the Respondent.

17. With regard to the allegation of the Applicant in Para 26, the Respondent submits that there are no heavy metals used by it and so its effluent does not contain any heavy metals. Notwithstanding this, it may be relevant that as per NIOT report (**Annexure 9A**,

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Ref: Pg. 41, Table – III) all the heavy metals are Below the Limit of Quantitation (BLQ) and the Manganese value indicated was also within the prescribed norms.

18. Further, with regard to the allegations in para 28, it is reiterated that MPL effluent is not hazardous and non-toxic because the propylene glycol which contributes to the COD can be consumed by human and animals and marine life do not get affected by consuming propylene glycol. The limits of propylene glycol for marine animal study is attached which is around 23800 to 51600 PPM as per the MSDS report which has been furnished under **Annexure 6B**

19. The Respondent respectfully submits that as per the TNPCB monthly ROAs, it is evident that MPL effluent BOD/COD analysis were within the limits and occasional errors were observed in analysis due to chloride interference. In fact, most of the BOD values were within the limits indicating COD values also would have been within the limits. However, COD analysis could not be carried out in some cases due to chloride interference as per the report. Moreover, some of the reports indicating high COD/BOD must have been due to chloride interference in analysis procedure.

20. This respondent submits that MPL effluent's characteristics do not have any toxic metals or elements. MPL effluent has approx...4% calcium chloride salts which is similar to sodium chloride salts. MPL has implemented advanced bio treatment technology in combination with aeration method in the ETP for COD reduction in the effluent with High TDS (Chlorides), to meet the prescribed norms. Consistency in COD may always not be achieved, in scale up of individual trials, maybe due to analysis errors because of chloride interference. The analysis of COD and getting consistent results in the high calcium chloride effluent is a challenge. As explained earlier studies were carried out and thorough mixing was introduced in the analysis to correct COD deviations due to chloride interference to get consistency. So, it is submitted that higher COD recorded does not mean that the treated effluent was harmful or had created any damages.

21. The Respondent respectfully submits that the question of imposing of penalty for the impact on the environment alleged by the applicant will not arise due to the reasons stated above which contributed to the different levels of COD/BOD.

22. Further the Hon'ble Bench may kindly take into account the following facts, established by NIOT/CPCB sea water study analysis Reports relied upon by the Applicant:

- a. The Report has corroborated that the marine life has not been affected due to MPL effluent.

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b. There has been no deterioration in micro-organisms activities and in fact has very slightly improved as per the survey conducted areas. Such improvement could have been due to reduction in toxic metals, which however are not present in MPL's effluent.

c. There has been a very slight increase in BOD levels from 0.5 PPM in 2015 to 1.0 PPM in 2020. On the other hand, the BOD level of MPL's effluent has reduced significantly. Therefore it is clear that the effluent of MPL has had no role in the BOD levels in the sea.

d. There has been increase in nitrate (nutrients for microorganisms) and reduction in nitrites both of which are not present in MPL effluents.

e. There has been substantial reduction in petroleum hydrocarbons between 2015 and 2020. It may be relevant that MPL's effluents do not contain any such substance.

All the above clearly indicate that there are a lot of interferences from other domestic and industrial effluents in the area of MPL & TPL's discharge. This also indicates TNPCB has achieved good control due to monitoring of industries and hence the allegation of the Applicant against MPL & TPLs effluent and inactions by the authorities are totally baseless.

23. The Respondent wishes to submit that in sum the above study clearly indicates that quality of sea water has improved over the previous study. Most of the improvements are not connected to MPL's effluents and so other industrial and domestic effluents have played a major role in the improvement of the sea water quality. So it is clear that MPL & TPL's effluents have never had any adverse impact on the sea and marine lives.

24. It is further respectfully submitted that the slight increase in BOD values in the Sea water between 2015 and 2020, in spite of the same being significantly lower for MPL effluents clearly indicate that there has been no contribution of BOD increase due to MPL effluent earlier. This also substantiates that analysis errors may have played a role and the nontoxic/non bio accumulative nature of PG is clearly established.

25. The Respondent wishes to submit that the Units are in operation for more than 30 years and ever since there have been no complaints whatsoever from the fishermen hamlets or from any individuals. In fact the Company has been taking care of the local community by making contributions for various festivals at the temples and also doing a lot of CSR activities. Some of the major activities include provision of individual house toilets to about 200 houses, project for providing safe drinking water to 3 villages in Manali for which survey was done by IIT, Madras based on which requirements of these

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villages have been assessed. The project awaits approvals for digging borewell and space for setting up the plant. More than Rs. 55 lakh has been spent on the above and further Rs. 2 crore is estimated to be spent for this, subject to receipt of approvals. Sanitation and drinking water facilities have been provided in various government schools in the area. In addition to these the Company is in the process of setting up a free Primary Health Care Clinic in the area to provide easy access and medical consultation for their immediate needs. In case of TPL, the company has constructed New Toilet block in Govt High School at Manali New Town, Primary Health care Centre at Sadayankuppam, Manali. More than Rs. 40 lakhs have been spent on the above and further Rs. 1.5 crore is estimated to be spent for other CSR activities. From the above it can be concluded that the Respondents has been supportive of the hamlets in and around Manali and not created problems for their livelihood as alleged by the Applicant.

26. Other than making wild allegations the applicant has not provided any proof to substantiate his claims that MPL&TPL's effluent have caused any damage to the environment or the surroundings. Hence the same may kindly be rejected by the Hon'ble Bench.

27. It is respectfully submitted that the Respondents, as a conscientious Corporate Citizen has been aware of its responsibilities to the society and need for sustainable development. It has taken various steps to ensure that its effluents are properly treated before marine discharge. It has not created any damage to the sea , marine life or the hamlets or its inhabitants, as alleged by the Applicant. On the contrary the Respondent has been very supportive of the villages in and around Manali in various ways.

28. It is also submitted that a higher COD value recorded in the past has not resulted in any damages. Further the methodology adopted for sample testing without masking the calcium chloride has also been a reason for higher COD values. The effluent contained mainly Propylene Glycol which is fit for human consumption and have been shown not to affect the marine substances and species. In the light of the above it is requested that the Applicant's demands to levy penalty on the Respondent be rejected and also there would be no need for appointing another committee as asked by him.

29. The action plan for the NGT appointed committee recommendation dt 28.10.2020 for MPL is submitted as **Annexure 18**. Relevant documents for proof are submitted as **Annexures 21,22,23,25,26,27A,27B,27C,28,29,30 & 31**.

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30. The action plan for the NGT appointed committee recommendation dt 28.10.2020 for TPL is submitted as **Annexure II**. Relevant documents for proof are submitted as **Annexures 1 to 10**.

31. The installation of the Continuous Marine Water Quality Monitoring system as suggested by the NGT committee in their report submitted on 28th Oct'2020, will be at the diffuser point in the sea and the safety/security of the sensors will be at stake since the area is unmanned. The sensors are very costly and there is a chance of security threat. Moreover, most of the reputed vendors are not willing to quote as they could not analyse many parameters given in the list. Hence, the respondent humbly submits to the Hon'ble Court, to consider installation of the Continuous Marine Water Quality Monitoring system in the effluent line of the common discharge point (in the land) for assessing the given parameters. Based on the NGT's direction, the respondent is ready to implement the system for monitoring the parameters and share the recorded data. As such the report of the expert committee and the various studies and comparison of reports clearly shows there is no discharge of any toxic elements from the respondent units and the applications deserve to be dismissed as against these respondents.

32. The Respondents submit that there is no adverse impact noticed in the marine environment, much less attributable to the respondents herein. No case is made out for imposition of any penalty on the respondents or for any further directions as prayed for by the applicant.

For the reasons stated above it is humbly prayed that this Hon'ble Tribunal may be pleased to reject the objections filed by the applicant and the prayers sought for by the applicant and pass such orders as this Hon'ble Tribunal deems fit and proper and thus render justice.

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Respondent



Counsel for Respondent

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