BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
AT CHENNAI (SZ)

ORIGINAL APPLICATION No. 256 OF 2020 (Suo Motu)

Memo filed on behalf of the intervenor
(dated 13.09.2022)

It is respectfully submitted as follows:

1. The website of the care air centre is not functioning properly. For example, on 11.09.2022, the website was inaccessible. Screenshot is annexed with this memo.

2. Though a link for 15 minute data of emissions from 17 category industries for the past one year is available, the data is not accessible. When download is attempted, a pdf file with only the first 200 rows is accessible. PDF files are inaccessible and MS excel format is the only way such massive quantities of data can be accessed and consumed.

3. In order to address the severe air pollution in Ennore – Manali area, it is submitted that the following directions to TNPCB, for better monitoring, regulation and redressal of grievances may be considered by this Hon'ble Tribunal:

   a. TNPCB to directly engage 3rd party consultant to carry out detailed process audits within each industry to identify point/non-point sources and static and mobile sources of emissions within each industry; installed equipment and audit practices for periodic maintenance and upgradation of emissions control; and make recommendations based on Best Practices and BAT (Best available technology).

   b. TNPCB should increase the network of Continuous Ambient Air Quality Monitoring stations, including by installing monitors in strategic locations such as schools and residential areas. Pollution hot spots should be identified based on consultations with residents and monitors should be placed.

c. TNPCB should fully implement the CPCB's revised guidelines with respect to "Installation of Continuous Ambient Air Quality Monitoring Stations," including by making the real time and historical AAQ data available to public for analyses and oversight.

d. TNPCB should upload 15-min ambient air quality/emissions data downloadable in MS excel format and searchable by date/period and industry, stack and/or sampling location.

e. Static and Zero data are suggestive of monitor malfunction, and should trigger immediate corrective action. TNPCB should adopt the following procedures to respond to Static/Zero data:

• Follow procedures laid out in CPCB's manual for Online Continuous Emissions Monitoring Systems.

• Automated procedures should be set up to:

- send 1st warning (alert and email) to company seeking corrective action and explanation for static/zero reading if the same persists beyond 30 minutes.

- Send 2nd warning, including notice warning of action if no remedial action is taken within 2 hours.

- Send 3rd warning, including Show Cause Notice as per Air Act based on weekly review of emission readings.

f. TNPCB should publish weekly report for each industry based on 15 minute averages, compiling and reporting exceedances, static/zero readings, notified shutdown/maintenance and actions taken.

g. TNPCB to submit report on stack-specific parameters that are sought to be monitored by industry and thresholds for same.

h. TNPCB to submit report on additional parameters and thresholds thereof that need to be monitored and reported.

i. TNPCB to submit report on compliance of industries to online emission reporting requirements - Are stack-specific parameters required to be monitored currently being monitored and reported?

j. Constitute an LAEC (Local area environment committee) consisting of representative of local residents, prominent trade union representative, an eminent health expert and environmental expert (As done previously in the Research Foundation case (Hazardous Wastes) by the Hon'ble Supreme Court). The LAEC may be tasked with carrying out quarterly monitoring and overseeing audits and health studies.

k. Establish a TNPCB office inside the industrial area to enable swift action and allow residents easier access.

Report of the Joint Experts Committee in OA 8/2016

4. The Joint Experts Committee set up by this Hon'ble Tribunal in OANo. 8/2016 has carried out a health risk assessment of residents in north Chennai taking into account various routes of exposure to coal-ash toxins - ingestion, dermal and inhalation. (Page 184 of 466) The risk assessment does not consider additional toxins from other sources of pollution such as the Manali industries, and thus presents a very conservative estimate of health risk to residents.

5. The report identifies two types of risks - Non carcinogenic (also called Hazard Index) and Carcinogenic. Hazard Index greater than 1 is considered serious and warrants intervention for noncarcinogenic health effects. Cancer risk greater than 1e-6 which means the probability of greater than one in a million getting cancer is the internationally accepted norms for deciding severity and intervention.

6. The risk assessment found that:
    a. adults face a high cancer and non-cancer risk due to cadmium and lead exposure;
    b. cancer and non-cancer risk due to cadmium, lead and copper is much higher for children than for adults;
    c. inhalation was the most significant route of exposure to toxins in influencing health risk.

7. The JEC report confirms that the resident population is already at risk, even if only thermal power plants are considered as source – OTHER INDUSTRIES IN MANALI / ENNORE WERE NOT CONSIDERED.

Report of Joint Committee IN OA 256 OF 2020

8. The Joint Committee's report dated 11-11-2021 in the matter of OA No. 256 of 2020 (NGT-SZ) finds as follows:

   a. Particulate matter emissions: The cumulative particulate matter emissions from NCTPS Stage-1 through stacks is 2906mg/m 3 . The average ground level concentration achieves at a average distance of 2.22km and the concentration at that point is 114.85 Œºg/m 3 which includes all the stacks at NCTPS Stage-1. It clearly indicates that the PM 10 contribution to the nearby communities is exceeding the ambient air quality standards and carrying capacity in this area is exceeding. (Page 7 of 22)

   b. Overall combined source mass emission load: The overall combined source mass emission load of SO2 and NO2 with the maximum ground level concentrations are exceeding the NAAQ Standards and carrying capacity for these two parameters is not further available in nearby communities and Manali industrial area pertaining to CPCL's source emission load. (Page 8 of 22)

   c. Overall combined source mass emission load of Particulate Matter: The overall combined source mass emission load of PM is 3654.62kg/day for which the combined maximum ground level concentration is 497.3Œºg/m 3 and exceeding the National Ambient Air Quality Standards for about 5 times. The carrying capacity for particulate matter is not available at Manali industrial area as the predicted particulate matter emission from the four industries (TPL, MPL, MFL and CPCL) itself exceeded 5 times more than the National Ambient Air Quality Standards during the pre-monsoon study period and this will still higher in winter period. (Page 20 of 22)

   d. Overall combined source mass emission load of Nitrogen Dioxide: The overall combined source mass emission load of NOx

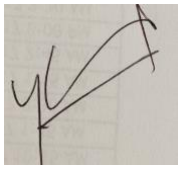
(considering 100% conversion of NO 2) is 22939kg/day for which the combined maximum ground level concentration is 2424ŒºÆg/m 3 and exceeding the NAAQ Standards for about 30 times. The carrying capacity for Nitrogen Dioxide is not available at Manali industrial area as the predicted Nitrogen Dioxide emission from the four industries (TPL, MPL, MFL and CPCL) itself exceeded 30 times more than the National Ambient Air Quality Standards during the pre-monsoon study period and this will still higher in winter period. (Page 20 of 22)

e. Overall combined source mass emission load of Sulphur Dioxide: The overall combined source mass emission load of SO2 is 33607kg/day for which the combined maximum ground level concentration is 2914ŒºÆg/m3 and exceeding the NAAQ standards for about 36 times. The carrying capacity for Sulphur Dioxide is not available at Manali industrial area as the predicted Sulphur Dioxide emission from the four industries (TPL, MPL, MFL and CPCL) itself exceeded 36 times more than the National Ambient Air Quality Standards during the pre-monsoon study period and this will still higher in winter period. Results from this analysis revealed that in order to manage SO 2 and NO 2 pollution in the industrial area, controlling of emission from Refinery should be given the first priority. (Page 20 and 21 of 22)

9. It is submitted that no further evidence is required to commission further studies, assessments and put in place a mechanism that will control and abate the severe pollution in this region.

It is submitted that the measures / steps mentioned in para 3 will ensure better monitoring and control of pollution in this region and this Hon'ble Tribunal may kindly consider these submissions and pass such orders as may be fit, proper and necessary in the interest of justice.

Dated this the 13th day of September, 2022 at Chennai



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