



TAMIL NADU POLLUTION CONTROL BOARD

Expression of Interest to conduct pollution load carrying capacity study in Manali Industrial area, Chennai for Air, Water and land Environment

Terms of Reference

- I. A Suo Motu case (O.A.No.256 of 2020) has been registered in Hon'ble NGT (SZ) on the basis of the news paper report published in News Desk Magazine dated, 11.11.2020 under the caption "These Six Industries in North Chennai are polluting the air for more than half the year"

It is alleged in the news paper report that air quality in Ennore - Manali region has been seriously affected on account of the emission made by some of the industries namely, Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO's) North Chennai Thermal Power Station (NCTPS) Stage 1, NTECL Vallur Power Plant, Chennai Petroleum Corporation Limited (CPCL), Tamil Nadu Petro products Limited (TPL), Manali Petrochemicals Limited (MPL), and Madras Fertilizers Limited (MFL).

During the subsequent hearing of the case on 20.10.2022, the intervener's counsel suggested that the carrying capacity study has to be done for all the industries in the said area by fixing the CARE AIR system. Also the Tribunal directed that the SPCB should ensure that wherever possible the technological advancement in the industries for controlling the pollution to be engaged/ employed by the industries instead of relying on the existing technology which would be good for the industry as well as the State and also directed the SPCB to verify whether they adopt the same norms for the area where there are several industries of different nature are there and for a standalone industry. If so, the SPCB can also revisit and fix separate norms for those industries which are functioning in groups.

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NGT also directed the intervener to give any other suggestions which are relevant and feasible to resolve the problem to the State Pollution Control Board. The Climate Action Group, Chennai has also suggested certain studies as a basis for considered action to develop a medium to long term action plan for reduction in air pollution and associated health risks.

- II.** Tamilnadu Pollution Control Board as regulatory Body has already issued Directions under the Environment (Protection) Act,1986 against the industries mentioned above and is continuously monitoring. In compliance with the Hon'ble NGT order and to protect the Environment as a precautionary principle, in this regard, it is decided to call for the expression of interest (EoI) from NABL/E(P)Act accredited environmental & technical expert organisations /reputed technical institutions to conduct the "carrying capacity study on pollution load in the Manali Industrial area for Air including Water, Land and noise Environment"

III. Components to be covered for Air, Water and Land Environment and Noise

Terms of References:

The following Terms of References (ToR) are suggested to conduct carrying capacity study in the Manali Industrial area, Chennai at the radius of 10 Km:

A. For Air quality environment:

1. The study on Air Emission should include with all 17 category type industries & all RED category industries by considering all sources of pollution including process, unit operation, fugitive emissions, incinerators, solid waste burning, utilities, vehicular movement, construction site and other sources.



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2. To estimate the carrying capacity in terms of emissions and the amount of emission reduction required to keep the air quality within the prescribed standard in the industrial area (10 Km radius) and to assess the effectiveness of air pollution control measures provided.
3. To quantify Sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and particulate matter emissions in Manali industrial cluster, since the major industries in that region includes petro chemicals, fertilisers and refineries and verify adequacy of stack heights in these industries and to find estimated safe load/ carrying capacities for SO₂, NO₂, and PM in terms of Tonnes/Day.
4. To suggest the effective mitigation plan for air pollution abatement by adopting i) best available technologies and best practices currently available globally, ii) fugitive emission control in the process, transportation ,packing etc., iii) cleaner fuel usage, iv) green belt requirement.
5. Continuous Ambient Air Quality monitoring to be carried out in the predominant wind direction/covering maximum area.
6. Process audit within each industry to identify point, non-point sources, static/mobile sources of emissions within each industry and to assess the adequacy of audit practises for periodic maintenance and up gradation of emission control and to make recommendations based on best available practises and technologies.
7. Performance audit of the pollution detection and control system including leak detection and Repair (LDAR) system to be conducted for addressing fugitive emissions.
8. To quantify the control measures required to achieve desired pollution level at the industrial area and to allow or deny the permission for the new industries at the vicinity.

9. Overall strategy for improving Air Quality in the Manali industrial area, Chennai.

B. Water Quality environment:

1. Total water quantity availability in the region, consumption/requirement for industrial and domestic purpose.
2. To suggest Methods for water conservation, recharging and water harvesting plan by the industries, after evaluation of waste water generation quantity, treatment, Recycle etc.
3. To carry out Groundwater sampling at various locations and to be analyzed for prescribed Board's standards and also for drinking water standards (IS 10500: 2012 permissible limits in the absence of alternate sources) to estimate base line data.
4. The effects of effluents discharged by industries into the rivers, lakes, ponds, streams and sea (Bay of Bengal) on eco system.
5. To suggest reuse/recycle of treated waste water, wherever feasible or alternate use in Avenue plantation etc.,
6. To suggest Zero Liquid Discharge system wherever techno-economically feasible.
7. Continuous monitoring of effluent quality/quantity-suggestion for improvement.

C. Land environment:

1. To suggest waste minimisation, after evaluation of total solid wastes/Hazardous Waste generation in the area.
2. Methodology to be adopted for waste Reuse/recycle/recovery options including regeneration of catalysts based on waste disposal requirement and waste disposal alternatives.
3. Significant norms for management of hazardous waste. The waste generated should be preferably utilised in co-processing-Suggestions based on study.



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4. Management plan for solid/hazardous waste generation including its composition/ characterization/categorization, storage, utilization and disposal
5. To suggest Remediation measures to be adopted to restore the environmental quality if the groundwater, soil, crop, air, etc., are affected.

D. Noise:

1. To identify the major sources of noise during the Industrial operations, construction phase, vehicular traffic and the mitigation measures to reduce the noise impacts to be provided.
2. Ambient noise levels shall be monitored in and around project premises
3. Details on noise levels at sensitive/commercial receptors-Suggestions based on the study.
4. Requirement of Green belt barrier.

The interested agencies may submit their Expression of Interest along with time duration & cost estimation and brief project report in a sealed cover mentioning on the envelop that 'EOI for carrying capacity Study for Manali Area' to the undersigned on or before 28.02.2023 at 5.00 p.m.

Sd/xxx

Chairperson

R. J. J.
for Chairperson 10/2/2023
CN
10/2/2023

