BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

Original Application No. 256 of 2020 (SZ)

Tribunal on its own motion Suo Motu based
on the News Item in News Desk Magazine
dt. 11.11.2020, Air Pollution and Industries,
"These Six Industries in North Chennai are
polluting the air for more than half the Year"

Versus

Union of India,
Ministry of Environment, Forest
and Climate Change,
Rep, by its Secretary,
indira Paryavaran Bhavan, Jorbagh Road,
New Delhi – 100 003.

...Respondent(s)

MEMO FILED BY THE 8TH RESPONDENT
TAMIL NADU POLLUTION CONTROL BOARD.

1. It is respectfully submitted that the present matter was taken up for hearing by this Hon'ble Tribunal on 30.01.2023.
2. It is respectfully submitted that the Chief Environmental Engineer of this Respondent made submissions before this Tribunal during the hearing.
3. It is respectfully submitted that the submissions are enclosed herewith as note along with annexures.

Place: Chennai
Date: 30.1.2023

Counsel for the 8th Respondent

Note on air pollution status at Manali Industrial Estate with respect to O.A. 256/2020

NGT Southern zone

As per the World Health Organization (W.H.O) global air quality guidelines, by latest 2021, the following pollutants in the ambient air are considered referring criteria pollutants (pollutants by evidence assessed as having high or moderate certainty of an association between a pollutant and a specific health outcome):

1. $PM_{2.5}$
2. PM_{10}
3. O_3
4. NO_2
5. SO_2
6. CO

Accordingly, the Government of India through its notifications has prescribed the National Ambient Air Quality Standards (NAAQS) in excise of power conferred by Sub - section (2) (h) of section 16 of the Air (Prevention and control of Pollution) Act, 1981 (Act No.14 of 1981), and in super session of the Notification No(s). S.O 384 (E), dated 11th April, 1994 and S.O.935 (E) dated 14th October, 1998, the Central Pollution Control Board (CPCB) thereby notified the NAAQS with immediate effects.

Presently the Ministry of Environment and Forest & Climate Change (MOEF&CC), Govt. Of India has revised the National Ambient Air Quality standards on 18.11.2009 as in **Annexure-I**.

The Manali Industrial estate having a total area of 11.32 km^2, houses the following industries:

- Fertilizer Manufacturing Units - 3Nos
- Petro chemicals Manufacturing units (including processing of Emulsions of oil and water) - 6Nos
- Synthetic fibers manufacturing units including rayon, tyre cord, polyester filament yarn- 1 No
- Industry or processes involving foundry operations having capacity of 5 MT/hr and more as such units require using fuel coal/coke at more than500 Kg/hr – 1No.
- Chemical Industry - 4 Nos

- Pharmaceuticals - 2 Nos
- Thermal Power Plants – 3 Nos
- Oil Refinery – 1 No

In order to assess the Ambient Air Quality (AAQ), the CPCB had begun the National Ambient Air quality Monitoring Programme (NAMP) since 1984-85 throughout the country. Under the NAMP, the Ambient Air Quality is monitored in Chennai from 1987 onwards.

The stations presently monitored in Chennai are

1. Manali
2. Kathivakkam
3. Thiruvottiyur
4. T Nagar
5. Anna Nagar
6. Kilpauk
7. Nungambakkam
8. Adyar

The results of annual average of Chennai city is given below in Table -I:

Table – I

Annual Average Concentrations of Air Pollutants in Chennai across all monitoring stations during the last five years

CHENNAI	ANNUAL AVERAGE ACROSS ALL MONITORING STATIONS			
	SO_2	NO_2	PM_{10}	$PM_{2.5}$
	Avg	Avg	Avg	Avg
2021-22	11	19	52	25
2020-21	11	18	50	25
2019-20	11	18	71	31
2018-19	11	18	83	34
2017-18	11	17	71	32
NAAQS	**50 µg/m^3**	**40 µg/m^3**	**60 µg/m^3**	**40 µg/m^3**

Based on the technical advancement, Continuous Ambient Air Quality Monitoring Stations (CAAQMS) for Ambient & Stack emissions have been implemented in Manali & its industries as an indicative and early warning technique.

Further, all the 17 category industries are provided with Online Monitoring of Industrial Emission & Effluent (OCEMS) and are connected to the Care Air Centre, Tamil Nadu Pollution Control Board, Guindy. As and when, the

standards for $PM_{2.5}$, PM_{10} SO_x, NO_x exceed, the industries get SMS from the Board to take action for reducing emission and also concerned Jurisdiction Engineers are informed to monitor and report.

In 2019, MoEF&CC launched National Clean Air Programme (NCAP). Under NCAP, 131 "non-attainment" cities have been identified across the country based on the air quality data of PM_{10} values, where the pollutant exceeded NAAQS (Annual NAAQS - 60µg/m^3). Accordingly, CPCB has identified Thoothukudi and million plus cities of Trichy, Madurai and Chennai in the state of Tamil Nadu as non-attainment cities based on the annual averages of PM_{10} from 2011- 2015, 2014-2018, 2015-2019 and 2016-2020 respectively.

In 2016, Tuticorin was declared as non-attainment city as it exceeded NAAQS (of 60 µg/m^3) for consecutive years having PM_{10} values annual average of 108, 102, 81, and 85. CPCB has identified Trichy, Madurai and Chennai as non attainment cities in the year 2019, 2020 and 2021 respectively. And were initiated for reducing the PM_{10} (Considered as the National pollutant).

Under NCAP, Apex Committee, Steering Committee, Monitoring Committee and Implementation Committee at Central level have been constituted for effective implementation of NCAP. Also Steering Committee and Implementation Committee at State level, and Implementation and Monitoring Committee at City level have been constituted for monitoring of action plans.

Under NCAP to non-attainment city (Tuticorin) and under XVFC to million plus cities(Chennai, Trichy, Madurai) funds are released to implement city action plans inter-alia cover air quality improvement measures, capacity building of local bodies and Information, Education & Communication activities (IEC). For Chennai city, an amount of Rs. 181 crores for the FY 2020-21 and an amount of 91 crores for the FY 2021-2022 were sanctioned.

The activities undertaken as on December 2022 are source apportionment and carrying capacity assessment of Chennai city, green cover, Solid Waste management and Bio-mining. The expected time line of completion is 2026.

NCAP is a mid-term, five-year action plan launched in 2019. However, international experiences and national studies indicate that significant outcome in terms of air pollution initiatives are visible only in the long-term, and hence the programme may be further extended to 20–25 years in the long-term after a mid-term review of the outcomes.

Indian Institute of Technology (IIT), Madras has been entrusted by Greater Chennai Corporation to undertake source apportionment and carrying capacity assessment under National Clean Air Mission. Accordingly 20 Hotspots have been identified to conduct the study during summer and winter season vide Table - II.

Table – II
Identified Hotspots/Monitoring location

S.No	Zone	Monitoring Location	Categories	Remarks
1	Thiruvottiyur	Thiruvottiyur	Mixed	Site identified/ Monitoring in progress
2	Manali	Manali	Industry	Site identified/ Monitoring in progress
3	Madhavaram	Thillai Nagar	Residential	Site identified/ Monitoring in progress
4	Tondiarpet	Vyasarpadi Vallalar nagar	Mixed	Site identified/ Monitoring in progress
5	Royapuram	Royapuram	Mixed	Site identified/ Monitoring in progress
6	Thiru. Vi. Ka Nagar	Kilpauk	Residential	Completed
7	Ambattur	Ambattur	Residential	Site identified/ Monitoring in progress
8	Anna Nagar	Kilpauk Anna Nagar	Residential	Completed
9	Teynampet	Nungambakkam	Commercial	Completed
10	Kodambakkam	T. Nagar	Mixed	Completed
11	Valasaravakkam	Virugambakkam	Residential	Site identified/ Monitoring in progress

12	Alandur	Meenambakkam	Residential	Site identified/ Monitoring in progress
13	Adyar	Besant Nagar	Residential	Completed
14	Perungudi	Perungudi	Residential	Site identified/ Monitoring in progress
15	Sholinganallur	Sholinganallur	Residential	Site identified/ Monitoring in progress
16	Chromepet	Pallavaram Radial road	Residential	Will start by 14th March
17	Avadi	Police battalion	Mixed	Will start by 14th March
18	Poonamallee	M.G.R. Street	Mixed	Will start by 14th March
19	SP Road	SP Road	Kerb Side	Site identified/ Monitoring in progress
20	IIT Madras	ED Building	Background	On going

Scope of the work:

The Source Apportionment and emission inventory study will be carried out at 20 locations in the city for summer and winter season. The scope of the work comprises of the following:

1. Ambient Air Quality Monitoring and analysis of PM_{10}, $PM_{2.5}$, NO_2 and SO_2 as per NAAQMS guidelines at 20 identified locations for 2 seasons (summer & winter).
2. Characterization of collected PM_{10} and $PM_{2.5}$ ambient sample for carbon fraction (elemental carbon and organic carbon, ions (F, Cl, Br, NO2, SO4, K, NH4, Na, Ca, Mg) and elements (Na, Mg, Al, Si, P, S, Cl, Ca, Br, V, Mn, Fe, Co, Ni, Cu, Zn, As , Ti, Ga, Rb, Y, Zr, Pd, Ag, In, Sn, La, Se, Sr, Mo, Cr, Cd, Sb, Ba, Hg and Pb)
3. Estimation of carrying capacity for the city using suitable dispersion model.

Working of Online Monitoring of Industrial Emission & Effluent (OCEMS)

- In order to minimize physical inspection and maximize the use of technologies for assessment, reporting and follow-up **(Annexure-II)**, the

protocols for OCEMS were placed in the public domain on 13.03.2018 and further communicated by CPCB – IT division through their minutes dated 09.04.2018.

- Data are collected every minute and its average of 15 minutes is transmitted to the CPCB/SPCB servers.
- Based on deviations of values, connectivity and frequency alerts are sent to industries and officials in the form of colour coding.

YELLOW
ORANGE
RED
PURPLE

a. Exceedance >40%, 8 times a day for pH, Chemical Oxygen Demand (COD), Biochemical oxygen demand (BOD) and Total Suspended Solids (TSS) in terms of effluents and exceedance >25%, 8 times a day for PM, SO_2, NO_X, CO from any industry will indicate YELLOW (Level-I).

b. More than 36 YELLOW alerts during a 30-day moving period indicate ORANGE (Level-II).

c. More than 72 YELLOW alerts during 30-day moving period indicate RED (Level-III).

d. When more than one RED category alert during a 30-day moving period indicate PURPLE (Level-IV).

- For monitoring Ambient Air Quality (AAQ), Continuous Ambient Air Quality Monitoring Stations (CAAQMS) have been installed in various places in Tamil Nadu. To assess the AAQ in Manali industrial estate, a CAAQM station has also been installed and the readings recorded from December -2018 are given in Table-III:

Table - III

CAAQMS's Annual Average Concentrations of Air Pollutants in Chennai in Manali during the last five years

CHENNAI	ANNUAL AVERAGE IN MANALI			
	SO_2	NO_2	PM_{10}	$PM_{2.5}$
	Avg	Avg	Avg	Avg
2022	8.48	9.69	74.16	43.12
2021	8.19	14.72	59.12	30.5

2020	7.6	8.72	46.68	23.95
2019	9.7	8	60.5	37.7
2018	8.1	10.3	84.8	54.8
NAAQS	**50 µg/m3**	**40 µg/m3**	**60 µg/m3**	**40 µg/m3**

Based on the 24 hours CAAQMS reading Air Quality Index (AQI) is tabulated for each stations and put up in TNPCB Website, Facebook and Instagram. The monthly average AQI for Manali CAAQM station is given in Table – IV.

Table - IV

The corresponding Air Quality Index (AQI)

Months	2019	2020	2021	2022
January	149	63	77	70
February	99	66	79	81
March	41	30	68	94
April	28	43	58	49
May	46	14	51	57
June	40	37	53	37
July	31	46	50	48
August	34	38	43	64
September	46	51	50	73
October	58	38	54	91
November	89	48	60	111
December	60	83	84	112

AQI	Remark	Color Code	Possible Health Impacts
0-50	Good		Minimal impact
51-100	Satisfactory		Minor breathing discomfort to sensitive people
101-200	Moderate		Breathing discomfort to the people with lungs, asthma and heart diseases
201-300	Poor		Breathing discomfort to most people on prolonged exposure
301-400	Very Poor		Respiratory illness on prolonged exposure
401-500	Severe		Affects healthy people and seriously impacts those with existing diseases

Inference

Viewing the NAMP data on the annual average concentration of air pollutants in Chennai (inclusive of Manali) given in Table – I and the CAAQM's annual average

concentration in Manali from 2018-2022 given in Table – III, it can be seen that SO_2, NO_2 are well within the AAQ standards of 50 $\mu g/m^3$ and 40 $\mu g/m^3$ respectively. However, the levels $PM_{2.5}$ are almost near to the standard of 40 $\mu g/m^3$. Thus, the stand taken by MoEF&CC to control particulate matter of PM_{10} and $PM_{2.5}$ is validated.

Based on the Hon'ble NGT order dt. 19.12.2022 a meeting (consisting of 23 participants including TNPCB officials) **(Annexure-III)** was organized with industries on 19.01.2023 to share their ideas & methods of improving the situation in the Manali area with respect to air pollution.

Some of their views stated are as follows:

1. The levels of Particulate matter in Ambient air, Manali is higher while considering vehicular emissions in addition to other area sources of habitation, Construction activities etc.
2. The vehicular emissions also contribute to pollutants SO_x and NO_x.
3. Sequestering of CO_2 by growing additional green belt like MIYAWAKI, bottling of CO_2, etc can help in reduction of Green House Gases.
4. End to end paving of roads, adopting mechanical sweepers with water sprinklers can reduce dust emission.

Conclusion

a. As per Section (3) of the EP Act Rules 1986, wherein standards for emissions or discharge of environmental pollutants are specified sector wise like Caustic soda industry, Petroleum Oil Refinery, Thermal Power Plants, Fertilizer industry, Sulphuric Acid Plant, Chlor-alkali industry etc.
   Thus, industries are to put up necessary control measures to prevent exceedance of parameters specified sector wise. The level of pollutants is being monitored through TNPCB and CPCB.
   Therefore, these stringent standards are adequate enough on source monitoring and also these standards are revised from time-to-time.
b. Line sources and area sources are now being covered by IIT- Madras in their Source Apportionment and Carrying capacity study, which will give factual details.

c. NCAP approved State Level Implementation and Monitoring Committee has allotted 272 crores for mitigating pollution in Chennai.

d. As per Comprehensive Environmental Pollution Index (CEPI), Manali has been declared as critically polluted area having more than CEPI score of 70 in 2018 pre-monsoon study by CPCB. Consequently. The TNPCB took stringent measures and also adopting the MoEF&CC Office Memorandum 31.10.2019 such as

(i) Change of solid, liquid fuel to gaseous fuels
(ii) Implementation of OCEMS
(iii) Increase in green belt by 40%
(iv) Adopting Zero Liquid Discharge (ZLD) etc

And thus the CEPI score in Manali industrial estate presently has decreased significantly to a score of 31. The consolidated table is furnished below in Table - V:

Table - V

Comprehensive Environmental Pollution Index (CEPI) Scores from 2019-2022

S.No	Name of the Location	Pre-Monsoon 2018* (Base year)	Post - monsoon 2019	Pre-monsoon 2020	Post - monsoon 2020	Pre - monsoon 2021	Post-monsoon 2021	Pre - monsoon 2022
1.	Manali	84.15	26.26	56.57	32.93	40.604	40.6	31.016
2.	Ranipet	79.38	28.13	22.18	22.18	21.792	21.8	22.176
3.	Tiruppur	72.392	24.32	38.07	46.99	29.49	32.398	29.49
4.	Mettur	71.82	20.38	21.28	24.18	27.48	21.39	25.472
5.	Thoothukudi	66.34	44.2	44.95	42.17	41.96	41.7	17.58
6.	Coimbatore	63.64	28.6	28.29	35.51	35.00	35.21	19.553
7.	Cuddalore	62.56	28.54	31.12	31.12	36.36	36.36	36.72
8.	Erode	60.33	25.02	20.27	50.69	49.73	21.39	49.71

*** As reported by CPCB.**

CEPI score >70 - Critically Polluted area
CEPI score between 60 to 70 - Severally Polluted area
CEPI score between 50 to 60 - Normally Polluted area
CEPI score 40 to 50 - Other Polluted area

Recommendations

1. Separate AAQ standards need not be insisted for Manali industrial estate.
2. All industries in Manali industrial estate shall be insisted to adopt best available technologies and best practices prevailing globally from time-to-time.
3. For all future industrial-clusters, a buffer zone to be notified by local authorities.
4. Industrial estate may spell out time based action plan for further reduction in environmental pollutants generated from the industries.

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30.11.2023

Chief Environmental Engineer
Tamil Nadu Pollution Control Board
76, Mount Salai, Guindy, Chennai-32.

ANNEXURE - I

NATIONAL AMBIENT AIR QUALITY STANDARDS
CENTRAL POLLUTION CONTROL BOARD
NOTIFICATION

New Delhi, the 18th November, 2009

No.B-29016/20/90/PCI-L—In exercise of the powers conferred by Sub-section (2) (h) of section 16 of the Air (Prevention and Control of Pollution) Act, 1981 (Act No. 14 of 1981), and in super session of the Notification No(s). S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998, the Central Pollution Control Board hereby notify the National Ambient Air Quality Standards with immediate effect, namely:-

NATIONAL AMBIENT AIR QUALITY STANDARDS

S. No.	Pollutant	Time Weighted average	Concentration in Ambient Air		Methods of Measurement
			Industrial, Residential, Rural and Other Area	Ecologically sensitive area (notified by Central Govt.)	
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO_2), $\mu g/m^3$	Annual*	50	20	• Improved West and Geake • Ultraviolet fluorescence
		24 hours**	80	80	
2	Nitrogen Dioxide (NO_2), $\mu g/m^3$	Annual*	40	30	• Modified Jacob & Hochheiser (Na-Arsenite) • Chemiluminescence
		24 hours**	80	80	
3	Particulate Matter (size less than 10 µm) or $PM_{10} \mu g/m^3$	Annual*	60	60	• Gravimetric • TOEM • Beta attenuation
		24 hours**	100	100	
4	Particulate Matter (size less than 2.5 microns) or $PM_{2.5}$ $\mu g/m^3$	Annual*	40	40	• Gravimetric • TOEM • Beta attenuation
		24 hours**	60	60	
5	Ozone (O_3) $\mu g/m^3$	8 hours **	100	100	• UV photometric • Chemiluminescence • Chemical method
		1 hour **	180	180	
6	Lead (Pb) $\mu g/m^3$	Annual*	0.5	0.5	• ASS / ICP method after sampling on EPM 2000 or equivalent filter paper • ED – XRF using Teflon filter
		24 hours**	1.0	1.0	

(1)	(2)	(3)	(4)	(5)	(6)
7	Carbon Monoxide (CO) mg/m^3	8 hours**	2	2	Non Dispersive Infra RED (NDIR) Spectroscopy
		1 hour**	4	4	
8	Ammonia (NH_3) $\mu g/m^3$	Annual*	100	100	• Chemiluminescence • Indophenol blue method
		24 hours**	400	400	
9	Benzene (C_6H_6) $\mu g/m^3$	Annual*	5	5	• Gas chromatography based continuous analyser • Adsorption and desorption followed by GC analysis
10	Benzo (a) Pyrene (BaP) – particulate phase only ng/m^3	Annual*	1	1	Solvent extraction followed by HPLC / GC analysis
11	Arsenic (As) ng/m^3	Annual*	6	6	AAS / ICP method after sampling on EPM 2000 or equivalent filter paper
12	Nickel (Ni) ng/m^3	Annual*	20	20	AAS / ICP method after sampling on EPM 2000 or equivalent filter paper

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 8 hourly or 1 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note: Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation.

ANNEXURE -II

Central Pollution Control Board, Delhi

IT Division

C-12011/33/2017-18-Tech/2059 April 09, 2018

Sub: Minutes of the meeting on "Introduction of Revised Protocol for compliance Reporting" held during 16th March, 2018 to 23rd March, 2018

Series of meetings & Video Conferences were held under the chairmanship of Member Secretary, CPCB attended by SPCBs/PCCs, RDs, Industry Associations, Technology Providers etc. List is at Annexure-I.

"Compliance Reporting Protocols" have been developed to strengthen the system of Online Continuous Emission/Effluent Monitoring Systems being deployed across country in 17 Categories, GPI and other highly polluting industries. The guidelines for Effluent & Emission Monitoring Systems were published in Nov. 2014 & 2017 respectively. Following these guidelines Protocols have been prepared.

Sh. Aditya Sharma, Sc.'D', presented the protocols and objective of developing this tool. He explained that the protocol will guide the industrial units in selection, installation, calibration and operation of instruments (OCEMS) and verification of systems.

These protocols are made to collect information of emission and effluent discharged from the industries monitored through OCEMS installed at industry. Details of four parts (I, II, III & IV) of the protocol were explained, which industry needs to submit once and periodically and every time when major repairs are carried out in the analysers or when Air Pollution Control Devices are changed. These protocols will be made available online at website http://cpcb.nic.in/Online-Monitoring-Industrial-Emission-Effluent/ through software before 15th April, 2018. Once the software is made LIVE, the industry will have to submit information within 45 days. Draft protocols were placed in public domain for comments, and were finally implemented as mandatory on 13th March, 2018 on each industry operating OCEMS.

The meetings schedules are as below:

S. No.	Meeting with	Date and Time
1.	Technology Providers	16th March, 2018 11:00 AM -14:00 PM
2.	IPC- I and WQM-II & Industrial Associations	20th March, 2018 11:00 AM -14:00 PM
3.	SPCBs/PCCs	21st March, 2018 14:00 AM -17:00 PM
4.	IPC-II, IPC-III and IPC-IV & Industrial Associations	23rd March, 2018 11:00 AM -14:00 PM

Key discussions/decisions taken place during the meeting are summarized below:

Sl. No.	Stake Holder	Discussions	Resolutions
1.	Technology Providers	1. **Clarification on Dew point and Moisture Content:** As per the Guideline, "Opacity meters are not suitable for stacks with flue gas below dew point or containing droplet from wet collectors"- which needs a clarification on dew point. It was also mentioned that opacity is not applicable in case flue gas contains moisture. M/s Forbes Marshall, emphasized that they have got the certification for their opacity meters which can measure Opacity/Dust in moisture conditions also.	It was decided that the matter will be re-considered and suitable modifications will be made.
		2. **Clarification on Low Concentration Measurement by Opacity Meters:** As per the Guideline, "Opacity Meters cannot monitor particulate levels below 25mg/m3 per meter path-length" whereas M/s Forbes Marshall claimed that the TUV Certification for measuring the PM/ Dust values below 10 mg/Nm3.	It was clarified that the certification mentions the condition of stack diameter 5meters. However, a suitable decision will be taken.
		3. **Clarification on NDIR Technology as In-Situ/Extractive:** As per the Guideline, In-situ NDIR cannot measure low levels whereas Extractive NDIR is able to measure the low concentration. Argument was how the same technology is not applicable for the extractive method.	Will be examined.
		4. **Clarification on Multiplexing** Guideline stated possibility of multiplexing in the technologies, but silent on whether it is allowed by CPCB or not.	It was clarified that as per the recent scenario, multiplexing is not allowed. However, a decision in this regard will be taken.
		5. **Clarification on Multipoint Calibration** As per the Guideline, "The system shall be rechecked for its health and data accuracy and reliability, following multi point calibration (at least 03 span concentrations) using standard	CPCB clarified that at least three point calibration is a must otherwise linearity of the device can't be established.

Sl. No.	Stake Holder	Discussions	Resolutions
		materials." Technology providers, mentioned difficulty in carrying out the multipoint calibration.	
2.	IPC- I and WQM-II & Industrial Associations	1. 15 Minutes duration should be enhanced as there are maintenance processes like Boiler De-dusting which require more time:	It was intimated that the First Color coded alert is generated when the exceedance is more than 40% of the prescribed standard for eight (08) consecutive readings or 8 times in a day for effluent and the exceedance is more than 25% of the prescribed standard for eight (08) consecutive readings or 8 times in a day for effluent which is already quite liberal. The standards will be made more stringent rather than relaxing.
		2. Std. Deviation is calculated instead of deviation as was proposed.	It was agreed and informed that software will be modified accordingly.
		3. Alerts are also generated on the basis of data discontinuation, but during plant shut down and plant maintenance, these alerts are continued. Hence, industry should be provided a window to inform.	It was informed that the window is already available through cems.cpcb@nic.in email; however a system based window may be considered.
		4. Associations requested to keep sending test mails of connectivity if no exceedances are occurring in the real time data to ensure their communication with central system.	It was agreed and informed that software will be modified accordingly.
3.	Video conference with Regional Directorates and SPCBs/PCCs	1. Jharkhand SPCB has requested for integration of camera feed at CPCB Central Portal.	It was informed that efforts will be made to provide camera data on central portal also.
		2. RD – Vadodara suggested to get auxiliary parameters mentioned in the CTO to remove the confusions.	It was agreed.
		3. MP-SPCB requested to legalize the OCEMS.	It was informed that the ultimate target is minimized physical inspection with maximum use of technology.

Sl. No.	Stake Holder	Discussions	Resolutions
		4. It was suggested that CPCB should give direction for remote calibration to SPCBs and SPCBs in turn should issue the direction to Industries.	Will be discussed and suitably resolved.
4.	IPC-II, IPC-III and IPC-IV & Industrial Associations	1. There was a doubt w.r.to auxiliary parameters like O2, CO2, Temp etc.:	It was clarified that without these parameters data corrections as stipulated in the standards can't be implemented, hence, these are mandatory.
		2. Requested clarity on monitoring of Circular and Rectangular stacks and Ducts.	It is already clarified in the Guideline.
		3. CMA requested CPCB to start a course for certification of Environmental Specialist under National Skill Development Mission.	It was informed that at present there is no plan.
		4. Associations queried about Empaneled Laboratories for Instrument Calibration and operation which are accredited by CPCB.	Will be discussed and suitably resolved.
		5. Ministry of commerce of Tamil Nadu and CMA requested that that they are willing to organize workshops for their industries in which CPCB team may make presentation about OCEMS.	It was informed that suitable decision will be made.
		6. TN Associations informed that TNPCB has directed tanneries in Tamilnadu to install flow meter and camera even though these are ZLD units, by virtue of sending their effluent to CETP.	It was informed that since these units are sending their effluent to CETP, as per CPCB directions these units have to install camera and flow meter and connect to CPCB & SPCB.
		7. Calibration at different plant load is impossible. In this regard it was informed that these units have to monitor the stack flue gas emission at any time whenever their plant is running at low capacity so that linearity of measurement device could be established.	It does not mean that plant capacity will be reduced and monitoring will be conducted and there will be loss of production. It has to be done on any day before the deadline of submission of information for Compliance Reporting Protocols.

Sl. No.	Stake Holder	Discussions	Resolutions
		8. Requested empanelment of Technology providers by CPCB	It was not agreed.
		9. Registration of calibration gas suppliers	It was informed that proposal to register these suppliers is already in the pipeline and procedure for the same is likely to be created.
		10. CPCB should provide the revised mandatory parameters list.	It was agreed.

Meeting ended with thanks to the Chair.

11/4/18

(Aditya Sharma)

Sc.'D', IT Division

ANNEXURE - III

Meeting held with the respondents of O.A No. 256 of 2020

MINUTES OF MEETING - based on the Hon'ble NGT order dated 19.12.22 DATE: 19.01.23

S.NO	Name of the company	Name of the person	Signature
1	TNPCB	Dr. S. SELVAM CEE/TNPCB Chennai	
2	TNPCB	D. VISVABHARAN JCEE(M) Chn.	
3	TNPCB	P. S. LIVINGSTON DEE/GMP	
4	TNPCB	S. INDRAGANDHI DEE/Ambattur	19/1.
5	TNPCB	R. Ranga Raj AEE/Manali	
6	TNPCB	V. Pushpalatha AE/Ennore	19/01/2023
7	NTECL	YADALA APPARAO	
8	TANGEDCO/NCTPS-II	K. AREVUDAYANAMMAL	
9	TANGEDCO/NCTPS-I	N. RAJESWARI	
10	CPCL ~~K. Rajasekaran~~	K. Nagadevan	
11	TPL	Rajakumari. A	
12	TPL	N. MURUGAN	
13	MPL	C. Saravanan	
14	MIA	P. Premapriya	
15	MIA	A. C. Saravanan	
16	MMPL	G. RAJASEKHAR	
17	MFL	C. R. Rajkumar	

Meeting held with the respondents of O.A No. 258 of 2020

MINUTES OF MEETING - Based on the Hon'ble NGT Order 19.12.22 DATE: 19-01-23

S.NO	Name of the company	Name of the person	Signature
18	MFL	S. KINGSLIN	
19	CPCL	S. NEELAKANDAN	
20	MPL	R. RAGHURAMAN	
21	TPL	S. C. Leeram	
22	MFL	T. VANNIA PERUMAL	
23	MPL	M. Kanthikumar	