

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

Original Application No.256 of 2020 [SZ]

IN THE MATTER OF

Tribunal on its own motion-SUO MOTU Based on
The News item in News Desk Magazine Dated
11.11.2020 , Air Pollution and Industries, “ These
Six Industries in North Chennai are polluting the air
For more than half the year, the North Chennai
Thermal Power Station alone Ennore Port”.

...Applicant(s)

Vs

Union of India and others.

... Respondent(s)

REPLY AFFIDAVIT FILED ON BEHALF OF THE 16TH RESPONDENT

I, Dr Girish Kumar, son of Late Shri Chandrika Prasad Singh, Hindu, aged about 47 years, having my place of work at Madras Fertilizers Ltd., Post Bag No.2, Manali, Chennai – 600 068, do hereby solemnly affirm and sincerely state as follows:-

1. I am the Company Secretary & Manager – Legal of Madras Fertilizers Ltd., arrayed as 16th Respondent in the Original Application and am well acquainted with the facts of the case.

2. I respectfully submit that this Hon’ble Tribunal vide order dated 11.11.2020 SUO MOTU took up on O.A.256 of 2020 based on The News item in News Desk Magazine, Air Pollution and Industries, “Six Industries including MFL in North Chennai are polluting the air for more than half the year”. In that behalf, this Hon’ble Tribunal issued notice to the Ministry of Environment, Forest and Climate Change, including the Company, arrayed as 16th Respondent.

3. I beg to state and submit that Madras Fertilizers Ltd., was established during the December 1966 and commercial production commenced in the year 1971. The Company is a Public Sector Undertaking under the aegis of Department of Fertilizers , Ministry of Chemicals and Fertilizers, Government of

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India. The Company is engaged in the manufacturing of fertilizers, both Urea and Complex to be sold to the farmers of the nation under subsidized cost. The Fertilizers were mainly supplied to farmers in South India. The annual turnover of the Company is around Rs. 1660 crores with daily working cost of Rs.4.76 crores. It engages 600 permanent direct employees and about 2000 contract workmen through the year around.

4. The Respondent company is one of the largest Fertilizer manufacturing companies and engages in the manufacture of Urea, Ammonia and NPK complex fertilizer. The factory is state governed enterprise with Government of India holding 59.50%, Naftiran Intertrade Co. Ltd., Iran holding 25.77% and Public holding 14.73% equitable share capital.

5. The factory plant of the Respondent is located in the Manali industrial complex (MIC) which is one of the largest Refinery, Fertilizer and Petro-chemical complexes in the country and has been listed in the critically polluted industrial clusters in India by the Central Pollution Control Board (CPCB). The comprehensive environmental Pollution Index (CEPI) score for this complex is 76.32. The complex hosts many medium to large scale industries of which many belong to highly polluting industries. The land use of Manali area is covered with 45% industries, 29% built up, 16% fallow region and 10% vegetation.

6. I further submit that the products manufactured by the Company come under the ambit of Essential Commodities Act, 1955. I state that despite the lockdown announced by the Central Government and the State Government due to COVID-19 pandemic, the Company was committed to run the plant for production of Fertilizers, its transportation and distribution as per Government of India's directives. The Company is a continuous manufacturing industry throughout the year. The factory is located over a large extent of 329 acres.

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7. I respectfully submit that this Hon'ble Tribunal vide order dated 11.11.2020 SUO MOTU took up on O.A.256 of 2020 based on The News item in News Desk Magazine, Air Pollution and Industries, "Six Industries including MFL in North Chennai are polluting the air for more than half the year". News Desk dated 11.11.2020 published the Industry specific observations based on the study conducted by Chennai Climate Action Group (CCAG) obtaining the data's for the year 2019 from TNPCB Care Air Centre through RTI. The following are the averments made against MFL.

1. MFL operated in violation of prescribed air pollution norms for 77% of the year.
2. Particulate matter emissions were non-compliant for 99% of the period (2019).
3. MFL failed to monitor emissions of Ammonia for 71% of the time.
4. Hydrogen Fluoride (HF) emissions were not recorded for 62% of the time.

SI No	Allegations against MFL	MFL Reply
1	MFL operated in violation of prescribed air pollution norms for 77% of the year	<p>Allegation is not true.</p> <p>In the year 2019, Urea Plant was in operation for 222 days only (60.8%)and NPK Plant for 210days only (57.5%). While the plants were in operation, 99% of the values of Air pollution norms were within the prescribed limits. Hence no violation.</p> <p>(Annexure - 1&2- TNPCB Real Time Data Acquisition and Monitoring report for Urea stack Demister emission)</p>
2	Particulate matter emissions were non-	Allegation is not true.

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	compliant for 99% of the period (2019)	<p>NPK Plant was under shutdown for nearly about 155 days. PM analyzer was installed in November 2019 and since then data's were available in the TNPCB server. But manual analysis was done every month by External Agencies and the values (from Jan to Oct 2019) were well within the prescribed limits. Hence, no violation</p> <p>(Annexure-4: External Agencies report for NPK Stack emission, Annexure-6 : TNPCB Real Time Data Acquisition and Monitoring report for PM values in NPK stack,)</p>
3	MFL failed to monitor emissions of Ammonia for 71% of the time	<p>Allegation is not true.</p> <p>Urea Plant was under shut down for a period of 143 days. Out of the remaining 222 days of operation, 203 valid data points available. (Per report taken from TNPCB server) which means 91.4% Ammonia data's were recorded and available. This implies that the monitoring is continuous and out of this, 99.0% of the values were well within the prescribed limits. Hence no failure in monitoring the emissions of Ammonia. (Annexure - 1)</p>
4	Hydrogen Fluoride (HF) emissions were not recorded for 62% of the time	<p>Allegation is not true.</p> <p>NPK plant was in operation for 210 days only in the year 2019 (57.5% of the year). While plant was in operation, emission datas were available for more</p>

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		<p>than 90% of the year and all the recorded values were well within the prescribed limit. (Annexure - 2)</p> <p>MFL is a complex fertilizer manufacturing unit. HF is not a raw material or product in the fertilizer manufacturing process. However Phosphoric Acid (54%) which is used as one of the raw materials contains maximum of 1.5% HF. During the process, Phosphoric Acid along with HF is completely neutralized to form Ammonium Phosphate and no HF acid is left unreacted. Hence HF emission will always be within the emission standard limit.</p>
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Pollution Control / Monitoring facilities in MFL:

8. I respectfully submit in all earnestness that MFL complies with all the conditions of Consent to Operate. Also, MFL has taken great efforts and provided several Pollution Control mechanisms as per the directives of CPCB / TNPCB to protect environment as detailed below:

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Stack Monitoring:

Stacks in MFL	Pollution Control Mechanism / Online Pollution Monitoring Devices Installed
Urea Prill Tower	<p>Demister (Pollution Control Mechanism): Installed during 1997 Revamp.</p> <p>Demister is a wet stack with chevron filters which will scrub any NH₃ that may escape from the Evaporator outlet. These NH₃ vapours are absorbed using water and are used back in the process.</p>
	<p>Ammonia Analyzer (Monitoring device): Installed in July 2018</p> <p>An online Ammonia Analyzer is in line since July 2018 to measure Ammonia in the Demister off-gas. The Ammonia values are well within the allowable limits (300 mg/Nm³) and are being communicated to TNPCB/CPCB online.</p>
NPK Stack	<p>Scrubbing System (Pollution Control Mechanism): Installed during 1976. Scrubbing system is a part of the NPK manufacturing process. The scrubbed liquid is recycled in the process.</p>
	<p>HF & PM Analyzer (Monitoring device): HF Installed in July 2018 and PM during November 2019</p> <p>HF and PM analyzers have been installed in the NPK C Train stack to monitor dust emission and HF content. Online connectivity is made on July 2018 & November 2019 respectively to TNPCB / CPCB servers. The values are within the limits prescribed in the standards.</p>
110 ATA	<p>Stack Height:</p> <p>Boiler stacks are built to comply with Minimum</p>

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<p>/Process Condensate Boiler</p>	<p>National Standards (MINAS) prescribed by CPCB, with sufficient height (117 M) so as to avoid the flue gas descending into the nearby area.</p> <p>Fuel conversion to RLNG (Pollution Control Mechanism): Fuel for these Boilers has been converted from Fuel oil to a clean fuel Natural Gas (RLNG) effective Mar 2019.</p> <p>Continuous Emission Monitoring Station (CEMS): Installed in October 2020</p> <p>An online PM analyzer has been installed in the stack as per CPCB guidelines and the values are well within the limits. The data are continuously being uploaded to TNPCB /CPCB servers.</p>
<p>UtilityBoiler1&2 Stack</p>	<p>Stack Height:</p> <p>Boiler stacks are built to comply with MINAS standards with sufficient height (70 M) so as to avoid the flue gas descending into the nearby area. Award of Work has been placed on M/s Thermax for conversion of fuel firing from Fuel Oil to RLNG and is expected to be completed by February 2022.</p> <p>Continuous Emission Monitoring Station (CEMS):</p> <p>An online PM, SO2 and NOx analyser is being installed. Installation by M/s Vasthi Instruments is under way and is expected to be completed by July 2021.</p>

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Ambient Air Quality Monitoring:

9. I submit that i also bring to the notice of this Hon'ble Tribunal that there are Continuous Ambient Air Quality Monitoring Stations (CAAQMS): MFL had installed five Continuous Ambient Air Quality Monitoring Stations (CAAQMS) of which two are working now and the data are connected to Care Air Centre of TNPCB. Remaining three stations have got damaged completely during the Dec 2015 flood and the Vardha cyclone in Dec 2016. An order has been placed on M/s Environment SA for the supply and installation. Job is in progress and expected to be completed by July 31, 2021(**Annexure 7- PO Copy**).

10. Ammonia Sensors have been installed in the peripheral of MFL by M/s Vasthi Instruments and the data are being uploaded continuously since September 2020.

Green Belt Development:

11. I hereby submit that the MFLhasdevelopedabout55acresofGreenBelt area within a short span of two years and will continue to mitigate the effects offugitive emissions from all the Plants as per CPCB guidelines (**Annexure 13**).

Stack and Ambient Air quality monitoring by CPCB / TNPCB:

12. I further submit that CPCB have their own monitoring stations installed in Manali village for continuous monitoring of ambient air quality. All the parameters are well within the limits (**Annexure --3**)

13.TNPCB is also carrying out regular monitoring of stack emissions as per the schedule given below and the values were well within the prescribed limits (**Annexure - 5**).

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Plant	Sample Details	Frequency
Urea	Demister Off gas	Once in a Year
NPK C Train	Stack Emission	Once in a Year
Utility Boiler	Stack Emission	Once in a Year
110 Ata and Process Condensate Boiler	Stack Emission	Once in a Year
DG Sets	Stack Emission	Once in a year

14.I hereby submit that MFL has complied to the direction issued by TNPCB on 11.03.2021

Compliance report to the directions issued by TNPCB dated 11.03.2021 regarding the SUO MOTO case taken by NGT based on the newspaper report published in News Desk Magazine dated 11.11.2020.

Sl.No.	TNPCB Directions dt 11.03.2021	MFL reply - Status as on 26.07.2021
1	The unit shall provide Flow meter at the Inlet and Outlet of STP. Provide Flow meter at the Inlet and Outlet of NPK-ETP. Connect the readings of flow meters at the Inlet and Outlet of NPK-ETP to the WQW centre of TNPCB.	Tender floated for supply & installation on 21.12.2020. Due to the non-fulfillment of pre-bid criteria by all the vendors, the tender had to be cancelled and subsequently fresh tender was floated on 09.04.2021. Bids were opened and under Evaluation. Expected to be completed by Dec 2021.
2	The unit shall provide Flow meters, energy meters and monitoring sensors for the parameters DO, TDS pH, pressure and levels to the RO plant proposed for the Cooling water blow down as per CPCB guidelines and connect the	Proposed RO plant for Cooling water Blow Down Treatment equipment erection job is in progress in which instruments like Flow meter, monitoring sensors for TDS and pH are part of the project. Expected completion: Dec 31, 2021.

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	readings to the WQW centre of TNPCB.	(Annexure 10 - Photos of erection activities)
3	The unit shall complete the conversion of fuel from Furnace oil to LNG in the 55 TPH boilers (2 No.s).	Award of Contract has been issued to M/s Thermax, Pune on June 16, 2021. Material supply and Installation period is 8 months. Expected to be completed by Feb 2022. (Annexure 8 - AOW copy)
4	The unit shall install commission and connect the analyser for PM, SOx and NOx for the common stack attached with Boilers 1 & 2 (55 T/hr each) early.	The contract for supply and installation of online CEMS analyser has been awarded to M/s Vasthi Instruments on 21.10.2020 with a delivery date of 26.01.2021. During installation, the commissioning Engineer of vendor got affected with Covid-19 and work got suspended. Now installation work is resumed and is in progress (Annexure 11 - Erection photos). Expected to be completed by August 2021.
5	The unit shall restore the remaining 4 CAAQMS stations and connect to CAC before June, 2021 as committed.	Out of the 4, ETP station was made ready on Dec 29, 2020 and data connected to TNPCB Care Air Centre. For remaining three stations, Tender floated. PO issued and Materials received at MFL site on 07.04.2021. Installation completed for 2 stations (Annexure - 12 - photo) and the 3 rd one is in progress. Expected to be completed by August 2021.

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6	The unit shall plant green belt by planting native & local specific species in the old SEPs (lagoons) area.	Lagoon is being filled up with available debris inside our company premises and also action is being initiated to fill the entire lagoon area with sand. For Green belt development, 150 new tree saplings planted this year on June 5, 2021. Already developed 55 acres of Green Belt. This process will be continued to increase the Green belt area every year utilizing the available land inside MFL. (Annexure 13- Photos of Green Belt areas)
7	The unit shall dispose the accumulated hazardous wastes to the authorized facilities immediately as per the conditions stipulated in the authorization order issued under the Hazardous Waste (Management, Handling & Trans boundary Movement) Rules 2008 and comply with the provisions of Hazardous & Other Wastes (Management & Trans boundary Movement) Rules 2016.	As suggested by TNPCB, HW disposal agreements made with SPCB authorized recyclers and resubmitted the application on 08.03.2021. Application was returned back on 29.03.2021 for some queries and MFL resubmitted the application after addressing all the queries on July 7, 2021. (Annexure - 9) . Awaiting Authorization from TNPCB.
8	The unit shall ensure that the OCEMS installed for the parameters NH3 in Urea Prill Tower, HF & PM in NPK Train C, PM analyser installed for the common stack attached with Process Condensate boiler 70T/hr & 110T/hr boiler, 11 Ammonia sensors	Complied. All the data are uploaded continuously to both TNPCB and CPCB servers. All the analysers are under AMC with the OEMs to avoid any disruption the data uploading.


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	within the premises and the continuous ambient air quality monitoring (CAAQM) sensors are calibrated regularly, operated continuously and connected to the CAC of the Board and CPCB servers.	
9	The unit shall ensure that the EMFM installed in the HSP Plant is calibrated regularly, operated continuously and connected to WQW of the Board and CPCB servers.	Complied. The EMFM is in line continuously and data are streamed online in TNPCB and CPCB servers by TNPCB authorised vendor M/s TransTech solutions.
10	The unit shall ensure for the continuous data transmission from the OCEMS and CAAQM sensors to the CAC and WQW of the Board and CPCB servers.	Complied. MFL will ensure the data transmission to TNPCB and CPCB servers without any interruption.

15. I truth fully submit to this Hon'ble Tribunal that it may please be observed from the above data that MFL has three layered strategy of identification, abatement and monitoring as a policy of its environmental care activities. In preceding years, several corrective actions were taken in the interest of environment protection. We have gone to the extent of changing the feedstock from fuel oil to RLNG for the sake of GO GREEN. We have implemented several monitoring mechanisms such as online continuous, classical monthly analyses, third party surveys and survey by statutory authorities.



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Environmental Pollutants Monitoring Strategy

Category	Monitoring Parameters / Locations	Frequency
Continuous - Online	Ambient Air – 5 CAAQMS Stations	Continuous 24x7
	Ammonia – 11 Sensors along peripheral area	
	Urea Demister O/L – Ammonia Analyzer	
	NPK C Train Stack – PM & HF Analyzer	
	110 & PCB Stack - CEMS	
	Boiler I & II Stack - CEMS	
Classical - Periodical	Ambient Air – 5 locations	Monthly Once
	Ambient Air – Work Environment	Bi Monthly Once
	Demister Solution – Ammonia & Urea	Every Shift
	Noise Level – 12 Locations	Once in 6 Months
	Ground Water Samples – 5 Locations	Once in 6 Months
	ETP & CETP Samples	Weekly Once
	HSP Samples for recycle	Every Shift
Third Party Laboratory (MoEF recognized)	Urea Demister Off Gas – PM & Ammonia	Every Month
	NPK C Train Stack – PM, Ammonia & Fluorine	
Statutory Authority (DEL)	Ambient Air – 8 Locations	Once in a year
	Noise Level – 8 Locations	
	Boiler I & II Stack Emission	
	110 ATA & PCB Stack Emission	
	Demister Off Gas Emission	
	NPK C Train Stack Emission	
	DG Emission	

16. All the resulting data are periodically communicated and we always stay connected to the statutory authorities. As we all know, technology is not always conclusive and MFL asserts for up gradations from time to time in up keeping clean environment as our motto stands BETTER STILL BETTER.

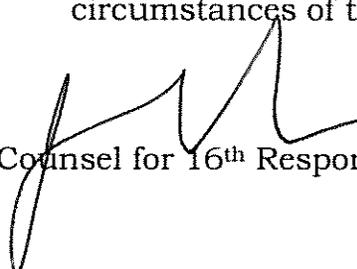
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17. The Hon'ble Tribunal may please take a note that the present management of Madras Fertilizers Limited is very much concerned about the environment protection and presents all out efforts in fulfilling the environmental commitments. It is evident from the continuous efforts and actions taken with allocation of huge expenses to the tune of 4.6Crores **(Annexure 14)** after the year 2018 in implementing various directives of TNPCB either new installations or restoration of the existing ones amidst various financial and administrative constraints.

18. It is therefore respectfully submitted that in view of the Management's continuous interest and efforts which are in the public domain, if some of the vested accusations are allowed to have free run that may serve as deterrent in our ongoing projects which are at critical stage detrimental to the larger interest of the Nation and Public welfare .

19. Hence in view of the facts and data enumerated above in all good faith sans negligence on the part of this respondent it is respectfully prayed that this Hon'ble Tribunal may close the *suo moto* proceedings initiated against this respondent company activity and pass such further or other order or orders this Hon'ble Tribunal may deem fit and proper in the circumstances of the case and render justice.


Counsel for 16th Respondent



16th Respondent

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VERIFICATION

I, Dr. Girish Kumar, Company Secretary and Manager-Legal, Madras Fertilizers Ltd., the 16th Respondent, do hereby verify that what is stated in Paragraphs 1 to 19 of the reply affidavit are true to the best of my knowledge, information and belief and I have not suppressed any material facts.

Verified at Chennai, this the 27th day of July, 2021.



16th Respondent

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