

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI
Original Application No. 605/2024

IN RE:


News Item titled "Oh-zone! Why this prominent pollutant in Delhi air is becoming a cause for concern" appearing in The Times of India dated 27.05.2024

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Filed By

New Delhi
Dated: 30.08.2024


(DR. ABHISHEK ATREY)
Counsel For the Respondent No.5
D-202, Additional Building Complex
Supreme Court of India,
New Delhi -110001
Mob.9810047556
Email:abhishekatrey@gmail.com

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
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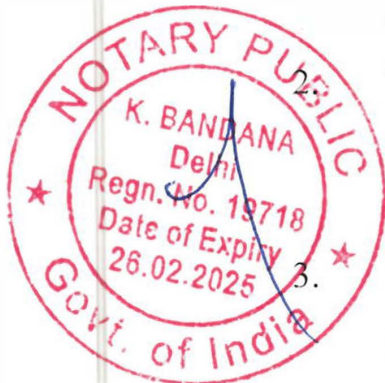
RESPONSE AFFIDAVIT ON BEHALF OF RESPONDENT NO.5, COMMISSION FOR AIR QUALITY MANAGEMENT IN NATIONAL CAPITAL REGION AND ADJOINING AREAS

I, Ram Kumar Agrawal aged about 55 years, S/o Shri Prabhat Kishor Agrawal, working as Director in the Commission for Air Quality Management in National Capital Region and Adjoining Areas, New Delhi (hereinafter referred to as 'Commission') having office at 17th Floor, Jawahar Vyapar Bhawan, STC Building, Tolstoy Marg, New Delhi – 110001, do hereby, in my official capacity, solemnly affirm and state as under:

1. That I, in the capacity of Director of the Commission for Air Quality Management in National Capital Region and Adjoining Areas, am fully conversant with the facts of the case and competent to swear this affidavit on behalf of respondent no. 5.

That the replying respondent is filing the present affidavit in compliance of order dated 27.05.2024 passed by this Hon'ble Tribunal.

That in the present matter this Hon'ble Tribunal took up the subject matter *suo moto* in connection with news item titled

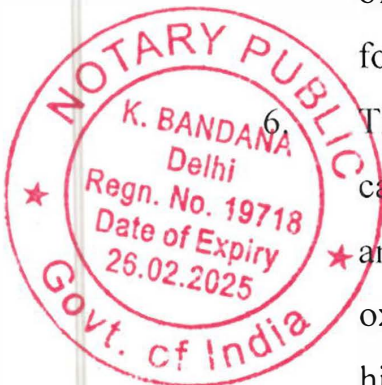


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निदेशक / Director
राष्ट्रीय राजधानी क्षेत्र और निकटवर्ती क्षेत्रों में वायु प्रदूषण नियंत्रण आयोग
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"News Item titled "Oh-zone! Why this prominent pollutant in Delhi air is becoming a cause for concern" appearing in The Times of India dated 27.05.2024" and vide its Order dated 27.05.2024 also impleaded the Commission for Air Quality Management in National Capital Region and Adjoining Areas (hereinafter referred to as the "Commission") as Respondent No. 5 and issued notice for filing a response.

4. That in response to the issue involved in the present matter it is stated that generally adverse air quality prevailing in Delhi-NCR, particularly in the winter months is primarily owing to the particulate matter emissions (PM 2.5 and PM10) arising out of various anthropogenic and geogenic sources. It includes other primary source pollutants too viz. NO_x, SO_x, CO, VOC etc., besides secondary pollutants like Ozone which also require appropriate control measures towards over all abatement of air pollution in Delhi-NCR.
5. That Ozone (O₃) in the troposphere plays a crucial role in air quality. Near the surface, ozone acts as an oxidant and chronic exposure to high levels of O₃ is harmful to human health and vegetation at elevated levels. Therefore, O₃ is known as a criteria air pollutant. Both natural (e.g. stubble and biomass burning, and biogenic emissions) and anthropogenic sources (e.g. industry and transportation) are responsible for the release of precursors of ozone in the atmosphere. At the surface, O₃ is formed as a secondary air pollutant.

That the main precursors are photochemical oxidation of carbon monoxide (CO) and hydrocarbons emitted from anthropogenic and biogenic sources in the presence of nitrogen oxides (NO_x = NO + NO₂). Meteorological conditions such as high temperature and solar radiation etc. create favorable



conditions for ozone formation. As ground-level ozone affects public health and ecosystem, it is important to abate and monitor all factors that lead to formation of Ozone.

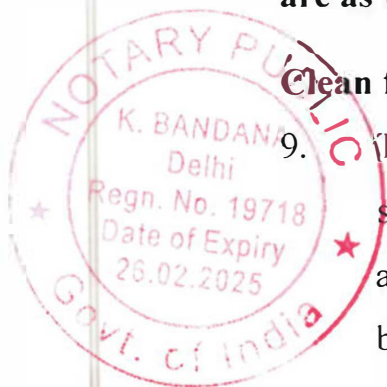
7. That Major Sources of precursors of Ozone like VOCs, NOx etc. include:
 - Industries like chemical manufacturers, paint manufacturers, etc.
 - Fossil fuel based Thermal power plants;
 - Fossil Fuel Burning
 - Vehicles
 - Open Burning Sources like MSW burning, Agricultural Residue Burning
8. The Commission for Air Quality Management in NCR and Adjoining Areas (CAQM), since its inception in 2021, through a series of firm steps, has initiated various policy measures and field actions towards overall abatement of air pollution in Delhi-NCR. CAQM issued a comprehensive Policy to Curb Air Pollution in the National Capital Region in July, 2022 that list down sector-wise action plans for prevention and control of air pollution in the region. The commission has also issued 82 statutory directions, 15 advisories in addition to various orders/guidelines for the control of air pollution in National Capital Region.

Initiatives by the Commission towards abatement of pollutants like VOCs and NOx leading to formation of Ground level Ozone are as under:

Clean fuels for industrial applications in NCR

9. The Commission, since its inception, has taken up the task of shifting industrial operations, including others sectors/applications, in Delhi - NCR to approved clean fuels and banning high polluting fuel like coal, diesel oil, furnace oil etc.

Dr. Nam Hanan Agrawal
 Director
 Commission for Air Quality Management in NCR & Adjoining Areas
 भारत सरकार / Government of India
 17वीं मंजिल, जवाहर व्यापार भवन (एस टी सी बिल्डिंग), टॉलस्टॉय मार्ग,
 नई दिल्ली-110001 / New Delhi-110001



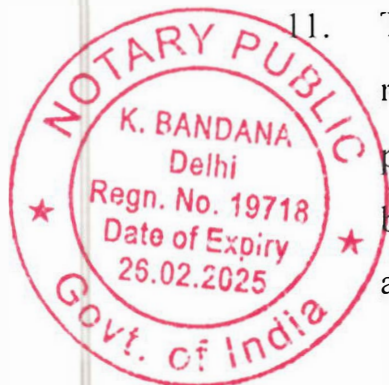
Out of 7759 fuel-based industries identified in Delhi - NCR, 7449 industries have already been shifted to approved fuels. Remaining 310 industries, which have still not been shifted to approved fuels are either closed by themselves or closed through the closure directives issued from concerned SPCB/DPCC. The concerned SPCB/DPCC have been directed to be vigilant on such units so that no industries in entire NCR run on unapproved fuels.

Inspection of Industries - Monitoring & Enforcement of Directions in NCR

10. The Commission, through its Enforcement Task Force aided by the inspection teams, conducts regular inspections of industrial units in the NCR to verify compliance of the standard approved fuel list as also the effectiveness of various air pollution control equipment / systems installed in such units and compliance to the prescribed standards of emissions for the sectors/ activities as applicable. Besides, the Commission has also directed the state pollution control boards in the NCR / DPCC to maintain strict vigil on similar lines towards effective enforcement of various policy directions, rules, standards and guidelines etc. issued from time to time by the Commission.

PNG Infrastructure, connectivity and supply in Delhi-NCR

11. That PNG is one of the cleanest fuels for various industrial, residential and commercial applications and accordingly proliferation of PNG infrastructure and supply in the NCR has been a priority for the Commission. To this objective, in close and active coordination with all stakeholders viz. MoPNG, City



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निदेशक / Director
राष्ट्रीय राजधानी क्षेत्र और निकटवर्ती क्षेत्रों में वायु प्रदूषण प्रबंधन आयोग
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Gas Distribution Agencies (CGDs) in NCR, industrial associations and SPCB/ DPCC, out of 240 identified industrial areas, 220 have been provided with PNG infrastructure/ connectivity so far and action is underway in the balance 20 areas (4 areas in Uttar Pradesh, 10 areas in Haryana and 6 areas in Rajasthan) to also be equipped with PNG infrastructure and supply by the end of 2024.

Co-firing of Biomass in Thermal Power Plants

12. That Paddy stubble burning in the states of Haryana, Punjab and Uttar Pradesh is a serious concern during the winter months when the meteorological conditions are unfavorable and winds are calm or no winds and there is no dispersion of the pollutants. Amongst various means towards ex-situ utilization of paddy straw, the Commission issued statutory Direction No.42 dated 17.09.2021 mandating 5-10% co-firing of biomass-based pellets with coal (focusing on paddy straw based pellets) in 11 identified Thermal Power Plants (TPPs) located within 300 Km of Delhi, also in line with the policy of Ministry of Power for co-firing of minimum 5% biomass Thermal Power Plants (TPPs),
13. That The compliance in this context is being periodically reviewed and monitored through regular review meetings in CAQM in coordination with MoP/ SAMARTH Mission and the identified TPPs. Arising out of a rigorous follow up, such co-firing has seen a significant rise in 2024 and as against about 1.22 lakh tonnes of bio-mass pellets co-fired in 2023, about 3.92 lakh tonnes have already been co-fired till the month of June in 2024.



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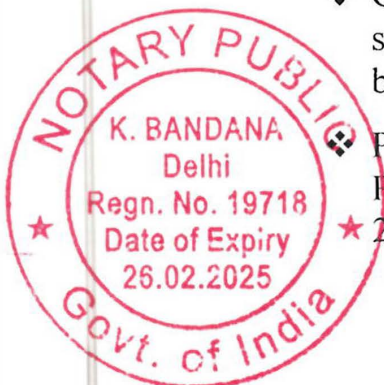
Abatement of Air Pollution from Diesel Generator Sets

14. Uncontrolled use of Diesel Generator (DG) sets is a major contributing factor and releases large number of pollutants viz: PM_{2.5}, NO_x and SO₂. The Commission vide Direction No. 76 dated 29.09.2023 as amended on 22.02.2024 stipulated adoption of the revised Schedule for regulated operations of DG sets (only as a backup against regular power supply failures) across all sectors in the NCR including Industrial, Commercial, Residential and Office establishments etc w.e.f. 01.10.2023. The directions inter-alia call for either completely switching over to new gas-based gensets or new diesel gensets with much superior emission controls to the latest standards. For the existing diesel gensets, the directions also stipulate either conversion to a dual fuel mode (diesel and gas) or retrofitment of certified Emission Control Devices.

Abatement of Air Pollution from Vehicular Sector

15. Abatement of vehicular pollution has been one of the focus areas for the Commission. Following Policy prescriptions have been issued by CAQM towards cleaner mobility in Delhi-NCR:
- ❖ Augmentation of public transport system in Delhi – Procurement of only electric buses for city services.
 - ❖ Intercity bus services to Delhi from NCR states now only through EV / CNG / BS-VI Diesel
 - ❖ Graded approach also for buses from non-NCR areas in these states (UP, Haryana and Rajasthan). Complete transition likely by 01.07.2024.

Plan for transition to cleaner inter-city bus services also from Punjab, HP, Uttarakhand, MP and J&K. Tentative targets Sept 2024/ March 2025.

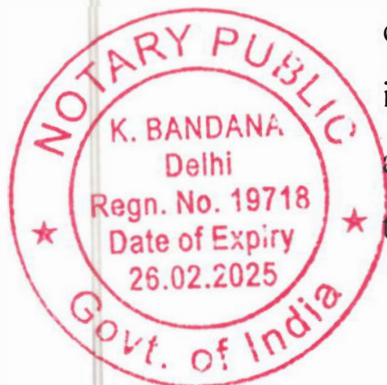


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- ❖ New registration of only CNG / electric autos in NCR w.e.f. 01.01.2023. Existing diesel autos to be phased out from entire NCR in a graded manner, by 2026.
- ❖ Boost to EVs and related charging infrastructure as per the respective EV policy.
- ❖ Comprehensive plans for cleaner public transport in NCR incorporating the following:
 - Augmenting Public Transport System
 - Parking area management plans - Rationalization of parking charges
 - Early warning systems like ITMS
 - Intelligent traffic signals -- enforcement and surveillance
 - Action against invalid PUC and overloaded/polluting vehicles
 - Action against End-of-Life Vehicles/Overaged vehicles
 - Implementation of Vehicle Scrapping Policy

Abatement of Air Pollution from Crop Residue Burning

16. Prevention and control of paddy stubble burning in and around NCR, including Punjab, which becomes a matter of serious concern and a prime contributor to the adverse air quality scenario in Delhi-NCR in October-November each year, has been a high priority sector for the Commission for abatement of air pollution, since its inception.
17. Under guidance of a broad framework advised by the CAQM for prevention and control of paddy stubble burning during 2021, comprehensive Action Plans for the Prevention and control of Paddy stubble Burning 2023 were prepared and implemented by the GNCTD, State Governments of Punjab and Haryana for their entire state and UP and Rajasthan (for their NCR Districts) for the years 2021, 2022 and 2023.

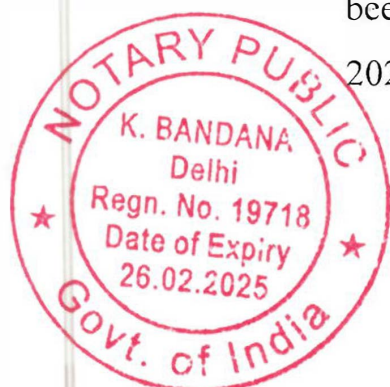


राज कुमार अग्रवाल / Raj Kumar Ag'awal
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18. As per the Standard ISRO Protocol, arising out the implementation of the action plans during 2021, 2022 and 2023, a gradual reduction in paddy residue burning events has been reported.

State	Cumulative Fire Counts (15 th September to 30 th November)			
	2020	2021	2022	2023
Punjab	83,002	71,304	49,922	36,663
Haryana	4,202	6,987	3,661	2,303
Total (including Delhi and NCR districts in Uttar Pradesh & Rajasthan)	87,632	78,550	53,792	39,186
Reduction in farm fires over previous year (%)	-	10%	32%	27%

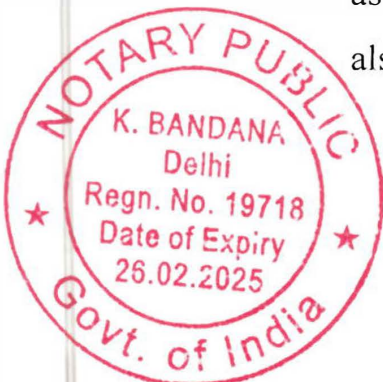
19. Towards preparedness for Paddy harvesting season, 2024, based on the framework advised by the Commission and learnings from the year 2021-2023, updated action plans have been prepared by the concerned State Governments for the year 2024.



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Abating pollution from MSW and miscellaneous waste burning

20. The Commission in its comprehensive policy to curb air pollution in National Capital region issued in July, 2022, identified MSW management and burning of open waste as one of the major sources of air pollution and accordingly advised various departments/authorities concerned to develop and monitor appropriate plans to manage the waste generated in the region.
21. The action plans for respective states in NCR call for control of Bio-mass/ Municipal Solid Waste Burning and fires in Landfill Sites, focusing on deployment of enforcement teams, quick complaint redressal and corrective actions through IT enabled platforms. There has been a drastic reduction in the number of incidences of fires in sanitary landfill sites in Delhi as compared to past years.
22. It is humbly submitted that while CAQM has not been particularly monitoring the levels of Ozone, it has remained cognizant of the factors that lead to ozone formation and the prevailing air quality scenario from time to time and reviews the same from time to time also directing for appropriate actions for strengthening and effective implementation of the already prescribed measures / actions. With persistent field level efforts and targeted policy initiatives, it is expected that as for other air pollutants, Ozone concentration over Delhi will also see gradual improvement, year on year.



DEPONENT

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VERIFICATION

Verified at New Delhi on this 30 AUG 2024 day of August, 2024 that the contents of the above affidavit are true and correct to my knowledge and as per official records maintained in the routine course of business. No part of the above affidavit is false and nothing material has been concealed there from.

CC/601
IDENTIFIED


DEPONENT

30 AUG 2024

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निदेशक / Director
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EMPOWERED TO ADMINISTER THE OATH
SECTION 139 OF CPC 1908
SECTION 297 OF CRPC 1973
DELHI HIGH COURT RULES 1967
PART-6, CHAPTER XVIII-227
EVIDENCE BY AFFIDAVIT BEFORE NOTAR
SUPREME COURT RULES, 2013
ORDER-X-7