

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
STARRED QUESTION NO. 124
TO BE ANSWERED ON 11.12.2025

Air Pollution due to construction activities

*124. DR. KANIMOZHI NVN SOMU

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether Government has assessed the risks posed by particulate air pollutants in residential areas arising from nearby high-rise or large-scale construction activities, particularly its impact on vulnerable groups such as children and elderly;
- (b) whether any mechanism exists for regular monitoring and enforcement of particulate matter and dust control standards in, and around major construction sites located near residential neighbourhoods.
- (c) whether Government proposes to introduce stricter norms, technology-based monitoring systems or additional safeguards to mitigate such localised pollution risks; and
- (d) if so, the details thereof?

ANSWER

MINISTER FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BHUPENDER YADAV)

(a) to (d): A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARAS (a) to (d) OF THE RAJYA SABHA STARRED QUESTION No. 124 DUE FOR REPLY ON 11.12.2025 REGARDING AIR POLLUTION DUE TO CONSTRUCTION ACTIVITIES BY DR. KANIMOZHI NVN SOMU, HON'BLE MEMBER OF PARLIAMENT

(a) to (d): During Construction and Demolition activities (C&D), largely Particulate Matter (PM) of size 10 micron and above are generated at various stages. Most of the PM₁₀ emissions occur during foundation activities, earthwork, excavation, loading and unloading operations, crushing and grinding activities. Furthermore, cement/mortar mixing and on-site preparation of ready-mix concrete are significant contributors to PM_{2.5} concentration also. These activities generate fine dust particles (PM_{2.5}) that get dispersed into the atmosphere and intensify construction-related air pollution. Additionally, PM_{2.5} concentrations are also generated from operation of diesel generator sets at construction sites and movement of vehicles.

CPCB has issued 'Guidelines on dust mitigation measures in handling construction material and C&D wastes' in November, 2017 and these guidelines prescribe the dust mitigation measures during construction activities, which are enclosed at **Annexure I**.

CPCB issued directions on 20.12.2017 to all State Pollution Control Board/Pollution Control Committee (SPCBs/PCCs) to make the above mentioned guidelines be part of the Consent management and direct Urban Local Bodies (ULB) to ensure compliance of these guidelines at construction sites in their jurisdiction.

CPCB issued directions on September 21, 2022 to all SPCBs/PCCs to ensure that construction and demolition activities are equipped with adequate dust mitigation measures, to ensure that large C&D activities having area more than 20,000 square meter are equipped with adequate dust mitigation measures including installation of anti-smog guns and also to ensure that a robust system of surveillance for compliance of above directions is put in place and any violation is dealt strictly as per law.

Building and Construction projects having $\geq 20,000$ sq. m and $< 1,50,000$ sq. m of built-up area, Townships and Area Development projects covering an area ≥ 50 ha and /or built-up area $\geq 1,50,000$ sq. m. require to obtain prior Environmental Clearance under the Environmental Impact Assessment Notification issued by MoEF&CC vide S.O. 1533(E) dated 14.09.2006. Such building and construction projects are required to prepare Environmental Management Plan and Conceptual plan and Townships and Area Development projects conduct

Environment Impact Assessment (EIA) to assess the environmental impacts and prepare Environment Management Plan containing mitigation measures to address the environmental pollution including air pollution during construction and operation phase of the project.

Ministry has delegated the powers under EIA Notification, 2006 to the State Level Expert Appraisal Committees (SEACs) for appraisal and the State Level Environment Impact Assessment Authorities (SEIAAs) for grant of Environmental Clearance.

Further, State Pollution Control Board (SPCB)/Pollution Control Committees (PCC) grant Consent to Establish (CTE) and Consent to Operate (CTO) for Building construction projects under The Air (Prevention and Control of Pollution) Act, 1981 and The Water (Prevention and Control of Pollution) Act, 1974.

Building Construction Projects with built up area $\geq 20,000$ sq. m. have been categorised into Orange (Pollution Index 55 to less than 80) and with built up area $\geq 5,000$ sq. m., but $< 20,000$ sq. m. have been categorised as Green (Pollution Index 25 to less than 55) categories, based on the pollution potential and are monitored by the respective State Pollution Control Board/Pollution Control Committees during its construction and operation phases.

Further, towards effective management and control of dust from the C&D activities, Ministry of Environment, Forest and Climate Change (MoEFCC) had notified Construction and Demolition Waste Management Rules, 2016, aimed to improve the collection, segregation, recycling, treatment, and disposal of construction and demolition waste in an environmentally sound manner.

These rules have been revised as “Environment (Construction and Demolition) Waste Management Rules, 2025, notified on 02.04.2025 vide G.S.R. 219(E) and which will come into force from 1st April, 2026. These rules emphasize the roles and accountability of waste generators at source and various stakeholders focusing on segregation, recovery, reuse, and recycling. In the revised rules, various provisions have been introduced for better management of waste generated by bulk waste generators due to Construction and Demolition activities including Extended Producer Responsibility (EPR) for recycling of such waste generation. Further, waste generators have been mandated to utilise recycled or processed waste in all construction activities, having built-up area of 20,000 square meters or above, and road construction as per the defined targets.

Producers or occupiers, in-charge of construction projects have also been mandated to take steps to prevent air pollution, littering of waste including public nuisance during collection, segregation and storage of waste. The enforcement of the provisions, under the aforesaid rules, are to be carried out by State Pollution Control Board, Local authorities and Development Authorities.

The Commission for Air Quality Management in NCR and Adjoining Areas Act, 2021 has issued 9 Directions and 2 Advisories. CAQM in 2021 vide Direction No. 11-15 dated 11.06.2021 directed Government of NCT of Delhi and NCR State Governments to put in place an online web portal for monitoring of compliance of dust mitigation measures by the large projects (with plot area above 500 square metres) and to ensure remote monitoring through technological intervention such as video fencing and ensure self-audit and certification mechanism by all the registered projects, in addition to other dust mitigation measures. Accordingly, Web portal is functional in all Delhi-NCR States. To effectively combat dust emissions CAQM vide Direction No. 69 dated 02.11.2022, also mandated deployment of adequate number of Anti-Smog Guns, in proportion to the area of the construction.

Annexure I

Details of dust mitigation measures prescribed in the Guidelines of CPCB while handling construction material and C&D wastes

- Sprinkling of water / fine spray from nozzles to suppress dust re-suspension at site.
- C&D wastes or construction material whether stored or transported (Lorries / tractors) to be preferably covered depending on the dust that is generated.
- Areas of loading / unloading (fugitive dust) activities are to be demarcated and located such that dust dispersal is minimized.
- Operations of equipment / machineries include transporting (conveyor belt), crushing and hammering etc deployed at site generate dust - these areas need to be bounded and use of water sprinklers suppress dust emissions.
- Gensets (DG sets) be well maintained to ensure low emissions.
- Transport vehicles engaged be well maintained (PUC compliance)
- Routes of transport vehicles within construction site be damped by water (preferably treated wastewater) sprinklers.
- Dry sweeping of work areas to be prohibited.
- For construction activities, simultaneous development of green buffer would assist in arresting dispersal of dust (preferably shrubs & trees that have low uptake of water).
- Workers to be provided necessary safety equipment - Workers at construction / demolition, Loading / unloading activities, are provided with face mask to prevent inhalation of fine dust.
- All builders / contractors engaged in construction & demolition activities to submit an undertaking to the concerned government department on measures adopted to control dust.
- Use of covering sheets (plastic, tarpaulin etc) at Construction material heaps that are easily air borne, C&D debris storage sites and adequate covering on construction works, particularly side facing residential areas.
- Use of water sprinklers is commonly recommended as a dust mitigation measure, however water is a precious commodity and its use needs to be rationalized. Alternate measures such as building higher barricades to arrest dust generated at ground levels and adopting covering (jute, plastic, tarpaulin etc) of construction material / wastes.
- Sale of construction material from road-sides to be prohibited.

- Dumping (unloading) and storage of construction material for use in on-going projects on public road-sides is prohibited.
- Dumping (unloading) and disposal of C&D wastes on non-designated sites (road-sides, vacant plots, water bodies, drains etc) be prohibited.
- Demand for construction material at site to synchronizes with its utilization, so that the storage period of un-used construction is minimal thereby reducing dust dispersal.
- Construction projects to be encouraged to utilize products manufactured from C&D waste processing.
- Inclusion of condition(s) by concerned agencies for adoption of dust mitigation measures in approvals / permits / consent provisions / environmental clearances for construction projects.