

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 2423
TO BE ANSWERED ON 04.08.2025

Installing of FGD System

2423. SHRI SHYAMKUMAR DAULAT BARVE:

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

- (a) whether the exemption given by the Government for installation of Flue Gas Desulphurisation (FGD) system is not contrary to the Government's objectives of Clean India and Healthy India;
- (b) whether it is a fact that Sulphur Dioxide particles generated by thermal power plants spread air pollution up to a distance of 200 km, if so, the reasons for considering only a radius of 10 km as the standard;
- (c) whether the Government has conducted any study which confirms that tall chimneys control pollution;
- (d) whether it is a fact that only 8 per cent of thermal power units have installed FGD system so far and the remaining have violated the deadline, if so, whether monetary or legal penalties have been imposed on them;
- (e) if so, the details thereof; and
- (f) whether PM 2.5 levels are still high in many major cities of the country despite the use of low sulphur coal, if so, the measures taken in this regard?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) to (f):

Ministry of Environment, Forest and Climate Change (MoEFCC) notified emission standards for coal/lignite-fired Thermal Power Plants (TPPs) vide notification dated 07.12.2015. The SO₂ emission standards prescribed vide notification dated 07.12.2015 have been reviewed by the Central Government taking into consideration the various representations received regarding exemption or relaxation in timelines of these emission standards due to limited availability of technology providers, its techno-economic feasibility, negative impact of COVID-19 pandemic on supply chain, price escalation due to high demand and low supplies, low Sulphur dioxide concentration in ambient air and heavy burden on consumer due to increase in electricity prices etc. Besides, studies conducted by research institutions regarding effectiveness and rationale behind these standards and its role in overall ambient air pollution of the region, were also

considered to evaluate the need of universal applicability and enforcement of these standards. After detailed review of the matter, Ministry has issued notification *vide* G.S.R. 465 (E) dated 11.07.2025 regarding the applicability of SO₂ emission standards notified vide notification dated 07.12.2015.

Besides, several scientific studies conducted by research institutions regarding effectiveness and rationale behind these standards and its role in overall ambient air pollution of the region, were also considered to evaluate the need of universal applicability and enforcement of these standards. As per these scientific studies as well as other scientific analysis, it has been observed that the SO₂ emissions from TPPs having adequate stack height in compliance with the Notification dated 30.08.1990 contributes to low ambient SO₂ concentrations in and around the TPPs due to proper dispersion of the pollutants, which is further observed to be insignificant beyond 10 km radius of TPPs.

The notification dated 11.07.2025 is based on approach of resource conservation by avoiding additional consumption of water, auxiliary power, and limestone; it also considers the increase in carbon footprint/CO₂ emissions resulting from the operation of deployed control measures, as well as the mining and transportation of limestone required for these measures. Furthermore, it takes into account the techno-economic feasibility of implementing such control measures across all coal/lignite-based TPPs. Additionally, the precautionary principle has been applied for control and abatement of air pollution in densely populated and other air pollution-sensitive areas, while also considering the heavy burden on consumers due to potential increases in electricity prices.

TPPs are required to comply with the emission standards notified by MoEFCC within the prescribed time limits, failing which environmental compensation shall be imposed on the non-compliant TPP units for operation beyond the prescribed time limit at prescribed rates. In all cases where SO₂ emission standards are not being made applicable TPPs, irrespective of location, shall ensure compliance of stack height criteria notified vide notification number GSR 742 (E) dated the 30.08.1990.

As per the notification dated 11.07.2025 the time limits prescribed for compliance of SO₂ emission standards by TPPs under Category 'A' and 'B' are up to 31.12.2027 and 31.12.2028, respectively. For Category 'C' the timeline for compliance of stack height condition as per notification no. G.S.R. 742 (E) dated 30.08.1990 is 31.12.2029. FGD installation has been completed in 49 Units (25,590 MW) in the TPPs.

The National Clean Air Programme (NCAP), launched in 2019, is a nationwide initiative aimed at reducing air pollution levels by up to 40% (from 2019-20 levels) or achieving the national standard of 60 µg/m³ for Particulate Matter by 2025-26. Under NCAP 130 non-attainment/million-plus cities have been identified that exceeded air quality standards for five consecutive years.

To identify pollution sources and their contributions, Source Apportionment studies have been conducted in various cities, revealing that apart from industrial emissions, vehicles, road dust, construction activities, biomass burning, and waste burning are major contributors to PM_{2.5} levels.

Key initiatives under NCAP include preparation of annual action plans, development of an Emergency Response System, ranking cities under Swachh Vayu Survekshan, and launching the PRANA portal to track the progress. Specific source-based measures include paving roads, mechanized street sweeping, better construction and demolition (C&D) waste handling, promoting electric and compressed natural gas (CNG) vehicles, banning waste burning, and monitoring industrial emissions. City-specific clean air action plans have been prepared and implemented with the involvement of agencies like Urban Local Bodies, traffic police, and pollution control boards. In addition, the Government has taken several initiatives to address pollution from PM_{2.5} levels inter-alia include leapfrogging from BS-IV to BS-VI fuel and vehicle norms effective from 1st April 2020, promotion of e-mobility and alternate fuels, voluntary vehicle scrapping policy through Voluntary Vehicle-Fleet Modernization Program (VVMP), implementation of Extended Producer Responsibility (EPR) framework for End-of-Life Vehicles (ELVs). Further, Ministry has notified emission standards for more than 80 categories of industries and the actions towards control of industrial pollution are implemented by industries. Monitoring and enforcement of industrial emission norms are carried out by the State Pollution Control Boards under the Air (Prevention and Control of Pollution) Act, 1981 through Consent mechanism.
