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GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 1723
TO BE ANSWERED ON 10.03.2025

Air Pollution caused by Coal Mining

1723. SHRI MANISH JAISWAL:

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

the details of the steps taken to check air pollution resulting from coal mining in the State of Jharkhand?

ANSWER

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

The Ministry of Environment, Forest and Climate Change (MoEF&CC) has made it mandatory to obtain Environmental Clearance (EC) for mining of coal. MoEF&CC published Environmental Impact Assessment (EIA) Notification 2006 regarding Environmental Clearance to be obtained by project proponent / mine owner for mining activities, which includes carrying out Environment Impact Assessment and preparing Environment Management Plan. Further, MoEF&CC has notified environmental standards for coal mines, a copy of the same is enclosed as **Annexure 1.**

State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) are empowered to regulate the industrial activities including coal mine activities, and enforcement of environment standards through grant of Consent to Establish and Consent to Operate under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981. These Acts include provisions for monitoring of compliance of environmental standards as applicable along with provisions of show-cause notice/closure for non-compliance of environmental norms.

Air pollution control measures such as dust suppression technologies, water sprinkling, green belt development etc. are undertaken in compliance of conditions of EC and Consent. Further as per stipulated conditions of Environmental Clearance, coal mine projects are also required to install the Continuous Ambient Air Quality Monitoring Stations (CAAQMS) for continuous monitoring of air quality in project areas.

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[1][90. STANDARDS FOR COAL MINES

1. AIR QUALITY STANDARDS

The Suspended Particulate Matter (SPM), Respirable Particulate Matter (RPM), Sulphur dioxide (SO_2) and Oxides of Nitrogen (NOx) concentration in downwind direction considering predominant wind direction, at a distance of 500 metres from the following dust generating sources shall not exceed the standards specified in the Tables I, II and III given below:

Dust Generating Sources

Loading or unloading, Haul road, coal transportation road, Coal handling plant (CHP), Railway sliding, Blasting, Drilling, Overburden dumps, or any other dust generating external sources like coke ovens (hard as well as soft), briquette industry, nearby road etc.

Table-I

Category	Pollutant	Time weighted average	Concentration in Ambient Air	Method of Measurement
1	2	3	4	5
I New Coal Mines (Coal Mines commenced operation after the date of publication of this notification)	Suspended Particulate Matter (SPM)	Annual Average * 24 hours **	360 µg/m^3 500 µg/m^3	- High Volume Sampling (Average flow rate not less than 1.1 m^3/min)
	Respirable Particulate Matter (size less than 10 µm) (RPM)	Annual Average * 24 hours **	180 µg/m^3 250 µg/m^3	Respirable Particulate Matter sampling and analysis
	Sulphur Dioxide (SO_2)	Annual Average * 24 hours **	80 µg/m^3 120 µg/m^3	- Improved west and Gaeke method - Ultraviolet fluorescene
	Oxide of Nitrogen as NO_2	Annual Average * 24 hours **	80 µg/m^3 120 µg/m^3	- Jacob & Hochheiser Modified (Na-Arsenic) Method - Gas phase Chemiluminescence

[1] Serial No.90 to 93 and entries relating thereto were inserted by Rule 2(1) of the Environment (Protection) Amendment Rules, 2000 notified vide notification G.S.R. 742(E), dated 25.9.2000.

Table-II

Category	Pollutant	Time weighted average	Concentration in Ambient Air	Method of Measurement
1	**2**	**3**	**4**	**5**
II Existing coal fields/mines given below: Karanpura, Ramgarh, Giridih, Rajhara, Wardha, Nagpur, Silewara, Pench Kanhan, Patharkhera, Umrer, Korba, Chirimiri, Central India Coalfields, (including Baikunthpur, Bisrampur), Singrauli, Ib Valley, Talcher, Godavary Valley and any other	Suspended Particulate Matter (SPM)	Annual Average * 24 hours **	430 µg/m^3 600 µg/m^3	- High Volume Sampling (Average flow rate not less than 1.1 m^3/minute)
	Respirable Particulate Matter (size less than 10 µm) (RPM)	Annual Average * 24 hours **	215 µg/m^3 300 µg/m^3	Respirable Particulate Matter sampling and analysis
	Sulphur Dioxide (SO_2)	Annual Average * 24 hours **	80 µg/m^3 120 µg/m^3	1. Improved west and Gaeke method 2. Ultraviolet fluorescene
	Oxide of Nitrogen as NO_2	Annual Average * 24 hours **	80 µg/m^3 120 µg/m^3	1. Jacob & Hochheiser Modified (Na-Arsenic) Method 2. Gas phase Chemilumine-scence

Table-III

Category	Pollutant	Time weighted average	Concentration in Ambient Air	Method of Measurement
1	**2**	**3**	**4**	**5**
III Coal mines located in the coal fields of • Jharia • Raniganj • Bokaro	Suspended Particulate Matter (SPM)	Annual Average * 24 hours **	500 µg/m^3 700 µg/m^3	- High Volume Sampling (Average flow rate not less than 1.1 m^3/minute)
	Respirable Particulate Matter (size less than 10 µm) (RPM)	Annual Average * 24 hours **	250 µg/m^3 300 µg/m^3	Respirable Particulate Matter sampling and analysis
	Sulphur Dioxide (SO_2)	Annual Average * 24 hours **	80 µg/m^3 120 µg/m^3	1.Improved west and Gaeke method 2.Ultraviolet fluorescene
	Oxide of Nitrogen as NO_2	Annual Average * 24 hours **	80 µg/m^3 120 µg/m^3	1. Jacob & Hochheiser Modified (Na-Arsenic) Method 2. Gas phase Chemilumine-scence

Note:

* Annual Arithmetic mean for the measurements taken in a year, following the guidelines for frequency of sampling laid down in clause 2.

** 24 hourly / 8 hourly values shall be met 92% of the time in a year. However, 8% of the time it may exceed but not on two consecutive days.

Unauthorised construction shall not be taken as a reference of nearest residential or commercial place for monitoring.

In case any residential or commercial or industrial place falls within 500 metres of any dust generating sources, the National Ambient Air Quality Standards notified under schedule VII shall be applicable.

2. FREQUENCY OF SAMPLING

– Air quality monitoring at a frequency of once in a fortnight at the dust generating sources given in clause 1 shall be carried out.

– As a result of monthly monitoring, if it is found that the value of the pollutant is less than 50% of the specified standards for three consecutive months, then the sampling frequency may be shifted to two days in a quarter year (3 months).

– In case, the value has exceeded the specified standards, the air quality sampling shall be done twice a week. If the results of four consecutive weeks indicate that the concentration of pollutants is within the specified standards, then fortnight monitoring may be reverted to.

3. EFFLUENT STANDARDS

The standards for effluent discharge into sewer or stream or land, are given below:

pH	–	5.5 to 9.0
Chemical Oxygen Demand (COD)	–	250 mg/l
Total Suspended Solids (TSS)	–	100 mg/l 200 mg/l (Land for irrigation)
Oil & Grease (O & G)	–	10 mg/l

(Monitoring frequency of these parameters shall be once in a fortnight)

Optional parameters : All other parameters indicated in the general standards for discharge of environment pollutants under Schedule VI, shall be in addition to the effluent standards specified under clause 3. (Monitoring frequency shall be once in a year for the optional parameters)

4. NOISE LEVEL STANDARDS

	6.00 AM – 10.00 PM	**10.00 PM – 6.00 AM**
Noise level	**Leq 75 dB(A)**	**Leq 70 dB(A)**

(Monitoring frequency for noise level shall be once in a fortnight)
Occupational exposure limit of noise specified by Director General of Mines Safety (DGMS) shall be complied with by the local mines.