



Sulfur Dioxide Emission Norms Delayed

Why in News

The **Ministry of Power** has **proposed pushing back the deadlines for adoption of new emission norms by coal-fired power plants**, stating "an unworkable time schedule" would burden utilities and lead to an increase in power tariffs.

Key Points

- **Background:**
 - India initially had set a **2017 deadline** for **thermal power plants** to comply with **emissions standards for installing Flue Gas Desulphurization (FGD) units** that cut emissions of toxic sulphur dioxide.
 - This was **later changed to varying deadlines for different regions, ending in 2022.**
- **Flue Gas Desulphurisation (FED):**
 - **Removal of Sulfur Dioxide** is called as Flue-gas Desulphurization (FGD).
 - It seeks to remove gaseous pollutants viz. SO_2 from exhaust flue gases generated in furnaces, boilers, and other industrial processes due to thermal processing, treatment, and combustion.
- **Proposal of the Ministry of Power:**
 - It has proposed a **"graded action plan,"** whereby areas where plants are located would be graded according to the severity of pollution, with **Region 1 referring to critically polluted areas**, and **Region 5 being the least polluted.**
 - **Strict control of emissions** shall be required in such key areas for thermal power stations categorised under **Region 1.**
 - Plants in **Region 2** could begin to **take action one year after those in Region 1.**
 - Presently **no action** is required for power plants that are situated under **Region 3, 4 & 5.**
 - According to the Ministry, the target should be to maintain **uniform ambient air quality** across the country and **not uniform emission norms** for thermal power plants.
 - This could avoid immediate increase in power price in various relatively clean areas of the country (and) avoid unnecessary burden on power utilities/consumers.

Sulfur Dioxide Pollution

- **Source:**
 - The largest source of SO_2 in the atmosphere is the **burning of fossil fuels** by power plants and other industrial facilities.
 - Smaller sources of SO_2 emissions include: industrial processes such as extracting metal from ore; **natural sources such as volcanoes**; and locomotives, ships and other vehicles and heavy equipment that burn fuel with a high sulfur content.
- **Impact:** SO_2 can affect both **health and the environment.**
 - **Short-term exposures** to SO_2 can **harm the human respiratory system** and make breathing difficult. People with asthma, particularly children, are sensitive to these effects of SO_2 .

- SO₂ emissions that lead to high concentrations of SO₂ in the air generally also lead to the **formation of other sulfur oxides (SO_x)**. SO_x can react with other compounds in the atmosphere to form small particles. These particles **contribute to [particulate matter \(PM\) pollution](#)**.
 - Small particles may penetrate deeply into the lungs and in sufficient quantities can contribute to health problems.
- **India's Case:**
 - India's sulphur dioxide (SO₂) emissions **recorded a significant decline of approximately 6% in 2019 compared to 2018**, the steepest drop in four years, according to a report from Greenpeace India and the Centre for Research on Energy and Clean Air (CREA).
 - However, India remained the **largest emitter of SO₂**.
 - In **2015**, the **Ministry of Environment, Forest and Climate Change (MoEF&CC)** **introduced Sulfur Dioxide (SO₂) emission limits for coal power stations**.
 - **[Air Quality sub-index](#)** has been evolved for **eight pollutants** (PM₁₀, PM_{2.5}, NO₂, SO₂, CO, O₃, NH₃, and Pb) for which short-term (upto 24-hours) **National Ambient Air Quality Standards** are prescribed.

[Source:TH](#)

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