

India's Repeated Delays in SO₂ Emission Norms

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India's Repeated Delays in SO₂ Emission Norms: A Never-Ending Saga

Understanding the Issue: Why Do SO₂ Emissions Matter?

- **Sulphur dioxide (SO₂)** is a harmful gas released from coal-based power plants.
 - It causes **air pollution**, leading to **breathing problems, lung diseases, and acid rain**.
 - To control this pollution, the **Indian government introduced new environmental rules in 2015**, setting limits on SO₂ emissions from thermal power plants.
 - However, these rules have faced **constant delays** in enforcement, allowing power plants to continue polluting for nearly a **decade without consequences**.
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Latest Postponement: What Happened in December 2024?

- On **December 30, 2024**, India's Ministry of Environment, Forest and Climate Change (MoEFCC) **extended the deadline** for power plants to follow SO₂ norms by **three more years**—now set for **December 31, 2027**.
 - This decision was made **without any official reason**, even though the **existing deadline for 20 GW of power plants** (located in densely populated areas) was just **one day away**—on **December 31, 2024**.
 - This is the **fourth time the deadline has been pushed**, raising concerns about whether the norms will ever be enforced.
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A Brief History of SO₂ Emission Norms in India

1. Initial Rules (2015)

- The MoEFCC introduced **new environmental norms** for thermal power plants in **December 2015**.
- These rules included:
 - **Stronger limits on particulate matter emissions** (small particles that cause air pollution).

- **SO₂ emission limits for the first time** to reduce pollution.
- The norms were designed to match standards in **Australia, China, and the U.S.**
- Power plants were originally required to comply by **December 2017**.

2. The Debate Over Compliance

- **Indian coal has lower sulphur content**, which should have made it **easier** for power plants to meet SO₂ norms.
- However, instead of focusing on **how to comply**, the debate shifted to **why compliance is difficult**, particularly:
 - The **high costs of installing Flue Gas Desulphurisation (FGD) systems**, which remove SO₂ from emissions.
 - The **long installation time required for FGDs**.
 - **Increased coal usage** due to FGD operations, leading to higher greenhouse gas emissions.

3. Conflicting Government Reports

- Various government agencies **complicated the debate** instead of ensuring compliance:
 - **Central Electricity Authority (CEA) Reports (2020 & 2021)** - Suggested that **SO₂ norms should be phased out till 2035** instead of being applied uniformly across the country.
 - **IIT Delhi Study (2022)** - Confirmed that **FGDs improve air quality** but recommended deadline extensions due to **high costs and supply chain issues**.
 - **NITI Aayog Study (2024)** - Argued that **SO₂ norms are not necessary for good air quality** and recommended focusing on **particulate matter emissions** instead.

Impact of Repeated Delays

1. Confusing and Unfair Deadlines

- The **December 2024 notification** is the **fourth extension** of SO₂ emission deadlines.
- Different deadlines now apply to different pollutants and locations:
 - **Particulate matter emissions deadline: December 31, 2024** (some plants had to comply as early as 2022 and 2023).
 - **SO₂ emissions deadline: Pushed to December 31, 2027**.
- **Lack of enforcement** - There is **no public data** showing whether plants are following even the existing rules.

2. Consumers Are Paying for Unused Equipment

- Many power plants have **already ordered FGDs** to meet the older deadlines.
- **Electricity regulators have allowed power plants to pass FGD costs to consumers**—raising electricity bills.
- **Key concern:** Even after installing FGDs, power plants **may not operate them** because running FGDs **increases costs**, making them less competitive.
- **Result:**
 - **Consumers pay for equipment that might not even be used.**
 - **Residents near power plants continue to suffer from SO₂ pollution for at least three more years.**

3. Health and Environmental Damage

- **SO₂ pollution is deadly**, especially for people living near power plants.
 - It leads to:
 - **Breathing problems, asthma, and lung infections.**
 - **Acid rain**, which damages soil and water.
 - **Formation of toxic secondary pollutants** in the air.
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Conclusion: A Never-Ending Delay with Serious Consequences

The repeated postponement of SO₂ emission rules shows a **failure of governance**. Instead of enforcing regulations, the government has allowed **years of debates, industry lobbying, and delays**, putting **public health at risk**.

At this rate, it is unclear if these pollution controls **will ever be fully implemented**. Meanwhile, **electricity consumers bear the financial burden**, and **millions of people continue to breathe polluted air**.

This situation is like **Birbal's khichdi**—a slow-cooking dish in an old Indian tale—except in this case, the **public pays the price, and the pollution remains**.



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