India’s Repeated Delays in SO_2 Emission Norms

Posted at: 07/02/2025

India’s Repeated Delays in SO_2 Emission Norms: A Never-Ending Saga

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Understanding the Issue: Why Do SO_2 Emissions Matter?

- **Sulphur dioxide (SO_2)** 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 SO_2 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**.

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 SO_2 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.

A Brief History of SO_2 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).

    - **SO_2 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 SO_2 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 SO_2 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 **SO_2 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 **SO_2 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 SO_2 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**).
    - **SO_2 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 SO_2 pollution for at least three more years**.

3. Health and Environmental Damage

- **SO_2 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.

Conclusion: A Never-Ending Delay with Serious Consequences

The repeated postponement of SO_2 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**.