

Flue Gas Desulphurization Units

January 5, 2021

In news

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

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**. That was later changed to varying deadlines for different regions, ending in 2022.

About Sulfur/sulphur dioxide (SO₂)

- Sulfur dioxide (SO₂) is a colourless gas with a sharp, irritating odour. It is produced by burning fossil fuels and by the smelting of mineral ores that contain sulfur.
- **Source:** Erupting volcanoes can be a significant natural source of sulfur dioxide emissions.

What are the ill effects of sulphur dioxide?

On environment

When sulfur dioxide combines with water and air, it forms sulfuric acid, which is the main component of acid rain. Acid rain can: cause deforestation. acidify waterways to the detriment of aquatic life.

On health

- Sulphur dioxide is a poisonous air pollutant that

increases the risk of stroke, heart disease, lung cancer, and premature death.

- SO₂ affects the respiratory system, particularly lung function, and can irritate the eyes.
- It irritates the respiratory tract and increases the risk of tract infections. It causes coughing, mucus secretion and aggravates conditions such as asthma and chronic bronchitis.

Major emitters of SO₂

- As per Greenpeace India and Centre for Research on Energy and Clean Air (CREA) **India continues to occupy the top emitter's position for the fifth consecutive year**
- In 2019, India emitted 21 per cent of global anthropogenic (human-made) SO₂ emissions, nearly double that of **second-ranked global emitter, Russia. China occupies the third position.**
- As per the report, the biggest emission hotspots in India are thermal power stations (or clusters of power stations) at Singrauli, Neyveli, Sipat, Mundra, Korba, Bonda, Tamnar, Talcher, Jharsuguda, Kutch, Surat, Chennai, Ramagundam, Chandrapur, Visakhapatnam and Koradi.
- However, the report stated that SO₂ emissions recorded a significant decline of approximately six per cent in 2019 as compared to 2018, the steepest dip in four years.