OA : 256 of 2020

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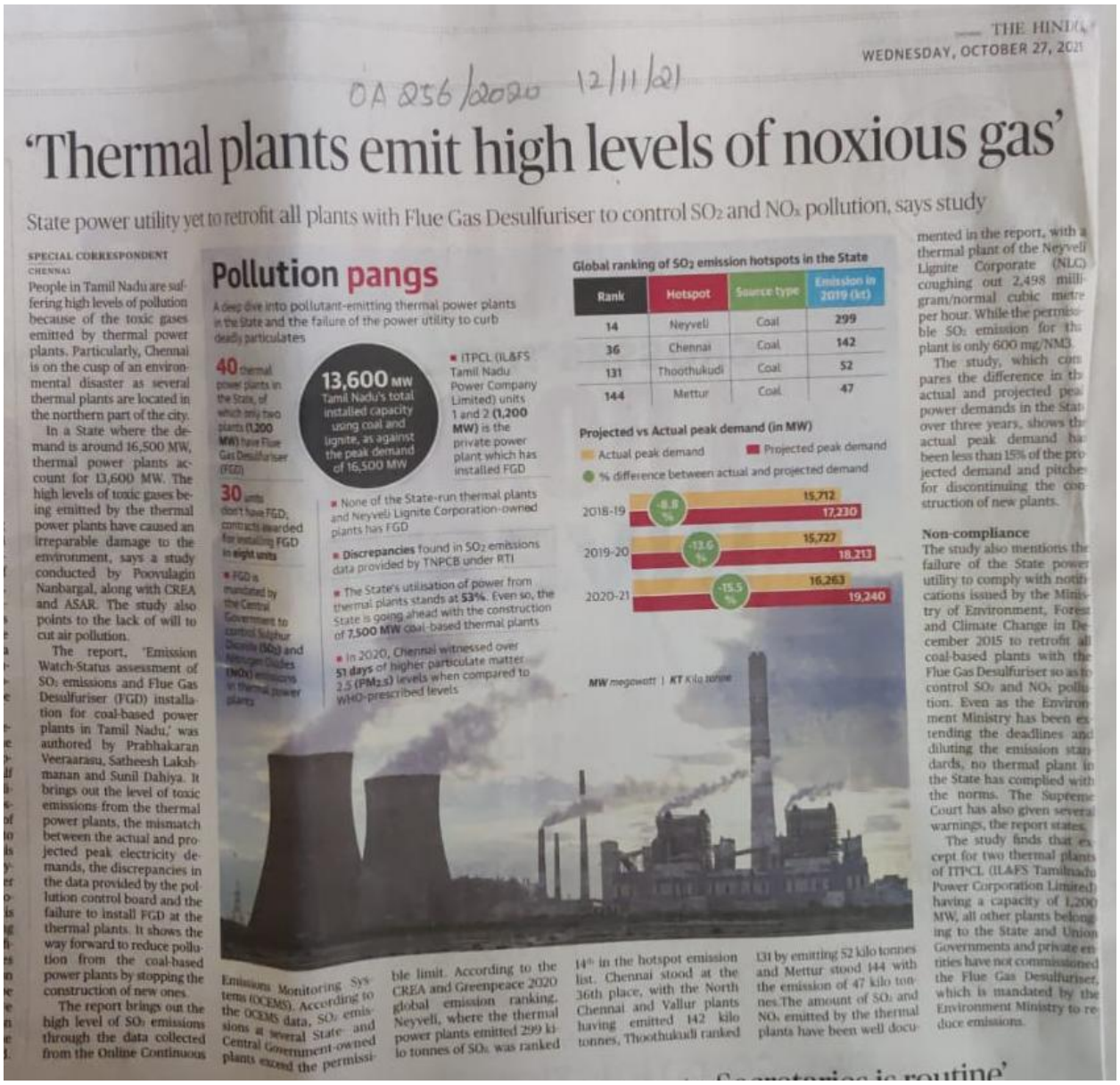

THE HINDU
WEDNESDAY, OCTOBER 27, 2021

OA 256/2020 12/11/21

‘Thermal plants emit high levels of noxious gas’

State power utility yet to retrofit all plants with Flue Gas Desulfuriser to control SO_2 and NO_x pollution, says study

SPECIAL CORRESPONDENT
CHENNAI

People in Tamil Nadu are suffering high levels of pollution because of the toxic gases emitted by thermal power plants. Particularly, Chennai is on the cusp of an environmental disaster as several thermal plants are located in the northern part of the city.

In a State where the demand is around 16,500 MW, thermal power plants account for 13,600 MW. The high levels of toxic gases being emitted by the thermal power plants have caused an irreparable damage to the environment, says a study conducted by Poovulagin Nanbargal, along with CREA and ASAR. The study also points to the lack of will to cut air pollution.

The report, ‘Emission Watch-Status assessment of SO_2 emissions and Flue Gas Desulfuriser (FGD) installation for coal-based power plants in Tamil Nadu,’ was authored by Prabhakaran Veeraarasu, Satheesh Lakshmanan and Sunil Dahiya. It brings out the level of toxic emissions from the thermal power plants, the mismatch between the actual and projected peak electricity demands, the discrepancies in the data provided by the pollution control board and the failure to install FGD at the thermal plants. It shows the way forward to reduce pollution from the coal-based power plants by stopping the construction of new ones.

The report brings out the high level of SO_2 emissions through the data collected from the Online Continuous Emissions Monitoring Systems (OCEMS). According to the OCEMS data, SO_2 emissions at several State and Central Government-owned plants exceed the permissible limit. According to the CREA and Greenpeace 2020 global emission ranking, Neyveli, where the thermal power plants emitted 299 kilo tonnes of SO_2 was ranked 14th in the hotspot emission list. Chennai stood at the 36th place, with the North Chennai and Vallur plants having emitted 142 kilo tonnes. Thoothukudi ranked 131 by emitting 52 kilo tonnes and Mettur stood 144 with the emission of 47 kilo tonnes. The amount of SO_2 and NO_x emitted by the thermal plants have been well documented in the report, with a thermal plant of the Neyveli Lignite Corporate (NLC) coughing out 2,498 milligram/normal cubic metre per hour. While the permissible SO_2 emission for the plant is only 600 mg/NM3.

The study, which compares the difference in the actual and projected peak power demands in the State over three years, shows the actual peak demand has been less than 15% of the projected demand and pitches for discontinuing the construction of new plants.

Non-compliance

The study also mentions the failure of the State power utility to comply with notifications issued by the Ministry of Environment, Forest and Climate Change in December 2015 to retrofit all coal-based plants with the Flue Gas Desulfuriser so as to control SO_2 and NO_x pollution. Even as the Environment Ministry has been extending the deadlines and diluting the emission standards, no thermal plant in the State has complied with the norms. The Supreme Court has also given several warnings, the report states.

The study finds that except for two thermal plants of ITPCL (IL&FS Tamilnadu Power Corporation Limited) having a capacity of 1,200 MW, all other plants belonging to the State and Union Governments and private entities have not commissioned the Flue Gas Desulfuriser, which is mandated by the Environment Ministry to reduce emissions.

Pollution pangs

A deep dive into pollutant-emitting thermal power plants in the State and the failure of the power utility to curb deadly particulates

40 thermal power plants in the State, of which only two plants (1,200 MW) have Flue Gas Desulfuriser (FGD)

13,600 MW Tamil Nadu's total installed capacity using coal and lignite, as against the peak demand of 16,500 MW

30 units don't have FGD; contracts awarded for installing FGD in **eight units**

- FGD is mandated by the Central Government to control Sulphur Dioxide (SO_2) and Nitrogen Oxides (NO_x) emissions in thermal power plants
- ITPCL (IL&FS Tamil Nadu Power Company Limited) units 1 and 2 (**1,200 MW**) is the private power plant which has installed FGD
- None of the State-run thermal plants and Neyveli Lignite Corporation-owned plants has FGD
- **Discrepancies** found in SO_2 emissions data provided by TNPCB under RTI
- The State's utilisation of power from thermal plants stands at **53%**. Even so, the State is going ahead with the construction of **7,500 MW** coal-based thermal plants
- In 2020, Chennai witnessed over **51 days** of higher particulate matter 2.5 ($PM_{2.5}$) levels when compared to WHO-prescribed levels

Global ranking of SO_2 emission hotspots in the State

Rank	Hotspot	Source type	Emission in 2019 (kt)
14	Neyveli	Coal	299
36	Chennai	Coal	142
131	Thoothukudi	Coal	52
144	Mettur	Coal	47

Projected vs Actual peak demand (in MW)

News Item in The Hindu newspaper, Chennai Edition dated 27th October 2021

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