

Stack Emission standard for Thermal Power Plants

A. Emission Standard for Coal based Thermal Power Plants as per MoEF&CC notification dated 07.12.2015 :

Emission parameter	TPPs (units) installed before 31.12.2003	TPPs (units) installed after 31.12.2003 and up to 31.12.2016	TPPs (units) to be installed from 01.01.2017	Remarks
Particulate Matter (PM)	100 mg/Nm ³	50 mg/Nm ³	30 mg/Nm ³	CAQM vide its direction dated 20.02.2026 has revised the PM emission limit for pre-2004 TPPs in Delhi-NCR from 100 to 50 mg/Nm ³ .
Sulphur Dioxide (SO₂)	600 mg/Nm ³ for units less than 500 MW capacity 200 mg/Nm ³ for units 500MW and above capacity	600 mg/Nm ³ for units less than 500MW capacity 200 mg/Nm ³ for units 500MW and above capacity	100 mg/Nm ³	Category C TPPs exempted from compliance of SO ₂ standard, subject to compliance with the stack-height criteria notified under GSR 742(E) dated 30.08.1990 by 31.12.2029 . Refer note mentioned below in \$ and \$\$
Oxides of Nitrogen (NOx)	600 mg/Nm ³	450 mg/Nm ³	100 mg/Nm ³	The decision on NOx standards (100 mg/Nm ³) for Units installed post 2016 is sub-judice under Hon'ble SC.
Mercury	0.03 mg/Nm ³ for units with Installed capacity = > than 500 MW	0.03 mg/Nm ³	0.03 mg/Nm ³	-
Water	3.5 m ³ /MWh	3.5 m ³ /MWh	3 m ³ /MWh	As per MoEF&CC Notification dated 28.06.2018, The Specific water consumption norms are Not Applicable to sea water based Units/TPPs.

Note:

For compliance of MoEF&CC norms, extended period has been granted to all TPPs based on Category A, B & C as per MoEF&CC notification dated 05.09.2022 and subsequent amendment notification dated 11.07.2025

MoEF&CC notification dated 11.07.2025: Timelines for compliance of MoEF&CC emission standard for coal/lignite based Thermal Power Plants:

Sl. No.	Locations Category MoEF&CC notification dated 31.03.2021	Location/Area	Timelines for compliance as MoEF&CC notification dated 05.09.2022 for Non-retiring of Parameters other than SO ₂ emission	Revised Timelines as MoEF&CC notification dated 11.07.2025 for compliance of SO ₂ emission
1	2	3	4	5
1	Category A	Within 10 km radius of National Capital Region or cities having million plus population (as per 2011 census of India)	Up to 31 st December 2022	Up to 31 st December 2027
2	Category B	Within 10 km radius of Critically Polluted Areas or Non-attainment cities (as defined by CPCB)	Up to 31 st December 2023	Up to 31 st December 2028 ^{\$}
3	Category C	Other than those included in category A and B	Up to 31 st December 2024	\$\$

Note:

- \$- As per as MoEF&CC notification dated 11.07.2025, In case SO₂ standards are decided as applicable, the same shall be effective from 31st December, 2028 and in all other cases, the thermal power plant shall comply with the stack height criteria notified vide notification number GSR 742 (E) dated the 30th August, 1990 by 31st December, 2028.
- \$\$-As per as MoEF&CC notification dated 11.07.2025, The SO₂ emission standards shall not be applicable to all Category C thermal power plants subject to ensuring compliance of stack height criteria notified vide notification number GSR 742 (E), dated the 30th August, 1990 and the time line for ensuring compliance by the existing Category C Thermal Power Plants of stack height criteria by the 31st December, 2029.

B. NO_x Emission Standards for Thermal Power Plants Burning Gas/ Naphtha:

S.No.	TPPs (units) installed before 01.06.1999	TPPs (units) installed after 01.06.1999
1	150 mg/Nm ³	50 mg/Nm ³ for units with a capacity $\geq$ 400 MW, burning natural gas.
2		100 mg/Nm ³ for units with a capacity $\geq$ 400 MW, burning naphtha.
3		75 mg/Nm ³ for units with a capacity $\geq$ 100 MW but < 400 MW, burning natural gas.
4		100 mg/Nm ³ for units with a capacity $\geq$ 100 MW but < 400 MW, burning naphtha.
5		100 mg/Nm ³ for units with a capacity < 100MW or burning gas in a conventional boiler.
