

**PROPOSED MACT FOR
STATIONARY COMBUSTION TURBINES
40 CFR 63 SUBPART YYYY**

Proposed MACT Subpart YYYY would regulate HAP emissions from stationary combustion turbines that are located at plant sites such as power plants, chemical and manufacturing plants, and pipeline compressor stations that are major sources of HAP.

The proposed rule either sets limits on the amount of air pollution or requires that certain controls be used with a specified standard of performance.

Regulated Pollutants

- Formaldehyde
- CO (as a surrogate to organic HAP)

Affected Sources

- New or reconstructed turbines
- Existing lean premix turbines

Exclusions

Sources specifically excluded from YYYY are:

- Turbines with rated peak power output < 1.0 MW
- New or existing emergency stationary combustion turbines (initial notification only)
- New or existing limited use (50 hrs or less per year) stationary combustion turbines (initial notification only)
- New or existing turbines that use landfill gas or digester gas as its primary fuel (initial notification only)

Compliance Dates

- New turbines: date of promulgation or upon startup, whichever is later
- Existing turbines: 3 years after promulgation

Control Options/Requirements

- Install controls known as “carbon monoxide catalytic reduction systems.” These systems control CO and reduce HAP emissions by 95% or more.
- Reduce formaldehyde emissions to 43 ppb or less.

Monitoring and Testing

Testing and monitoring to ensure continuous compliance with the emission limitations are required by the proposed standard. Units with an emission limit for CO are required to install a CEMS to monitor CO emissions.

Initial Compliance

To demonstrate initial compliance with the CO emission limit, an initial performance test is required to show the 95% reduction.

New or reconstructed turbines or existing lean premix turbines must conduct an initial performance test to show compliance with the emission limitation for formaldehyde emissions.

Sources that are not lean premix or diffusion flame turbine and that choose to comply with the formaldehyde emission limit must petition the Administrator for approval of operating limitations or approval of no operating limitations.

Continuous Compliance

To show compliance with the CO emission reductions, sources must calibrate and operate their CEMS according to the requirements of 63.8. Sources must continuously monitor the CO concentration and either the CO₂ or O₂ concentration simultaneously at the inlet and outlet of the oxidation catalyst emission control device and calculate the percent reduction of CO emission hourly. The reduction in CO emissions must be 95 percent or more based on a rolling 4-hour average, averaged every hour. Sources must also conduct annual RATA as well as daily and periodic quality checks.

For lean premix turbines, the proposed rule does not require continuous compliance demonstration for the formaldehyde emission limit as it is assumed that if the low NO_x emission levels are met, the turbine is also in compliance with the 43 ppmvd formaldehyde emission limit.

**PROPOSED EMISSION LIMITATIONS
FOR STATIONARY COMBUSTION TURBINES
UNDER MACT YYYY**

Existing diffusion flame turbine > 1.0 MW	no emission limitations
Existing lean premix turbine > 1.0 MW	CO: 95% reduction using an oxidation catalyst; or Formaldehyde: 43 ppbvd @ 15% O ₂
Emergency turbine	no emission limitations
Limited use turbine	no emission limitations
Landfill/digester gas turbine	no emission limitations
Existing turbine <1.0 MW	no emission limitations
New/reconstructed turbine > 1.0 MW	CO: 95% reduction using an oxidation catalyst; or Formaldehyde: 43 ppbvd @ 15% O ₂