

TESTING AND MONITORING RECOMMENDATIONS¹
FOR EXISTING RECIPROCATING INTERNAL COMBUSTION ENGINES (Except Emergency Generators)

Diesel / #2 or Lighter Fuel Oil / Bio-Diesel

Size (Single engine)	Combustion Process Adjustment	Periodic Monitoring Procedure (PMP^{2,5})	Stack Test^{4,6}
37 kW ≤ Power Output < 148 kW (50 HP ≤ Power Output < 200 HP)	If used for generating electricity: According to the manufacturer's recommended procedures and maintenance schedule.	CO and NOx, Annually	None ⁶
148 kW ≤ Power Output < 370 kW (200HP ≤ Power Output < 500 HP)	If used for generating electricity: According to the manufacturer's recommended procedures and maintenance schedule.	CO and NOx, Semiannually ³	None ⁶
370 kW ≤ Power Output < 1480 kW (500HP ≤ Power Output < 2000 HP)	According to the manufacturer's recommended procedures and maintenance schedule.	CO and NOx, Quarterly ³	CO, NOx, TSP, PM ₁₀ , and PM _{2.5} ⁷ every 5 years.
Power Output ≥ 1480 kW (Power Output ≥ 2000 HP)	According to the manufacturer's recommended procedures and maintenance schedule.	CO and NOx, Quarterly ³	CO, NOx, VOC, TSP, PM ₁₀ , PM _{2.5} ⁷ , and SO ₂ Every 5 years.

¹. Modifications / Renewals: This chart shall be used to update the testing and the monitoring requirements of equipment, for which a modification, that is not a Title I modification, has been submitted for approval and to update the testing and the monitoring requirements at the time of operating permit renewal.

². PMP results must be calculated in lb/hr.

³. A facility may request to reduce PMP frequency; see RICE PMP Frequency Reduction Guidance.

⁴. A Continuous Emission Monitor (CEM) can replace stack testing if the CEM monitors and records in equivalent units (e.g. A stack testing requirement for VOC in lb/hr may only be replaced by a CEM recording VOC in lb/hr) and the Relative Accuracy Test Audit (RATA) data meets CO and NOx limits in lb/hr and ppmvd at 15% Oxygen for two consecutive years. A CEM may replace subsequent stack testing requirements, but cannot nullify the need for the initial stack test, which establishes the emission rates to be monitored by a CEM.

⁵. For an engine with a CEM installed, the CEM must be used instead of the PMP for the parameters it is currently monitoring. For parameters not monitored by CEMS, the PMP shall be followed.

⁶. MACT ZZZZ (NESHAP for Reciprocating Internal Combustion Engines) may require additional stack testing at greater frequencies than the tests required by this Testing and Monitoring Recommendations. A permit writer shall review MACT ZZZZ applicability during the technical review of the modification or renewal operating permit application. Facilities are required to demonstrate compliance with MACT ZZZZ, which is effective as of May 3, 2010, no later than June 15, 2007 for major HAP sources and no later than May 3, 2013 for area HAP sources.

⁷. A separate PM_{2.5} test is not needed if PM_{2.5} is equal to PM₁₀