

ATTACHMENT O

**NEW MEXICO AIR QUALITY BUREAU
NSR & TV: IC ENGINES MONITORING PROTOCOL –
PERMIT TEMPLATE LANGUAGE
Version: May 23, 2016**

Purpose. These guidelines are intended to help permit specialists include adequate monitoring conditions into construction or operating permits in accordance with 20.2.72.210 NMAC or 20.2.70.302 NMAC. These guidelines also help ensure consistency in monitoring conditions for all permits regardless of which permit specialist is assigned the permit.

All IC engines are combustion devices subject to 20.2.61 NMAC and opacity monitoring, unless they qualify for the exemption under 20.2.61.109 NMAC (see permit template for opacity language).

NOTE: If the affected unit is subject to 40 CFR 64, CAM Rule, the AQB standard conditions may not apply.

[NOTE: Each permit writer shall review, select, and adjust the requirements below according to the specific facility circumstances.]

NOTE: EXTERRAN – Engine Integrated Control System (EICS): It is important that the permit identify that this particular control device is installed on an engine so that an enforcement inspector knows to check if the control device is installed. This is an engine emissions control device that will automatically shut down an engine if emission limits are exceeded. The department has determined that this control device is part of the engine’s “physical and operational design” with regard to the definitions of PER and PTE as applied to permitting, not as applied to NSPS/NESHAP. We may adjust the monitoring requirements for engines with this control device once we have experience in verifying that the control system performs as represented. For more information, see the presentation in aurora at: P:\AQB-Permits-Section\NSR-TV-Common\Permitting-Guidance-Documents\Engines\Exterran Engine Integrated Control System.

Engines

A. Maintenance and Repair Monitoring (Unit(s) **X, Y, and Z)**

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by properly maintaining and repairing the units.
Monitoring: Maintenance and repair shall meet the minimum manufacturer's or permittee's recommended maintenance schedule. Activities that involve maintenance, adjustment, replacement, or repair of functional components with the potential to affect the operation of an emission unit shall be documented as they occur for the following events: (1) Routine maintenance that takes a unit out of service for more than two hours during any twenty-four hour period. (2) Unscheduled repairs that require a unit to be taken out of service for more than two hours in any twenty-four hour period.
Recordkeeping: The permittee shall maintain records in accordance with Section B109,

including records of maintenance and repairs activities and a copy of the manufacturer's or permittee's recommended maintenance schedule.

Reporting: The permittee shall report in accordance with Section B110.

[Periodic Testing: Condition may be used for multiple scenarios; adjust as necessary and refer to flow diagram. For example, quarterly testing is required for units with controls and annual testing is required for uncontrolled units with total facility emissions ≥ 95 tpy for any pollutant.]

B. Periodic Emissions Testing (Unit(s) X, Y, and Z)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by completing periodic emission tests during the monitoring period. **For TV Permits add** (NSR XXXX-MX, Condition AXXX.B **and revised**)

Monitoring: The permittee shall test using a portable analyzer or EPA Reference Methods subject to the requirements and limitations of Section B108, General Monitoring Requirements. Emission testing is required for NO_x and CO **[change reference to pollutants as necessary]** and shall be carried out as described below.

[If the unit has VOC emission limits, include the following.]

Test results that demonstrate compliance with the CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits.

For units with g/hp-hr emission limits, in addition to the requirements stated in Section B108, the engine load shall be calculated by using the following equation:

$$\text{Load(Hp)} = \frac{\text{Fuel consumption (scfh)} \times \text{Measured fuel heating value (LHV btu/scf)}}{\text{Manufacturer's rated BSFC (btu/bhp-hr) at 100\% load or best efficiency}}$$

(1) The testing shall be conducted as follows:

- a. Testing frequency shall be **once per [quarter or year]**
- b. The monitoring period is defined as **[a calendar quarter, a calendar year], or [a custom schedule requested by the permittee].**

(2) The first test shall occur within the first monitoring period occurring after permit issuance. **[or if testing was already required by the previous permit, use this instead:]** The tests shall continue based on the existing testing schedule.

(3) All subsequent monitoring shall occur in each succeeding monitoring period. No two monitoring events shall occur closer together in time than 25% of a monitoring period.

(4) The permittee shall follow the General Testing Procedures of Section B111. **[add #5 if subject to testing in NSPS JJJJ/IIII or NESHAP ZZZZ]** (5) Performance testing required by 40 CFR 60, Subpart JJJJ or IIII or 40 CFR 63, Subpart ZZZZ may be used to satisfy these periodic testing requirements if they meet the requirements of this condition and are completed during the specified monitoring period.

Recordkeeping: The permittee shall maintain records in accordance with Section B109, B110, and B111.

Reporting: The permittee shall report in accordance with Section B109, B110, and B111.