Pennsylvania’s Air Quality Permitting Regulations for Internal Combustion Engines

MARAMA
Advances in Control Technologies Workshop
July 9 – 10, 2008

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- When does an internal combustion (IC) engine require a permit?
- What are the rules and regulations?
- General Permits
- Case-by-Case Review
When Does PA DEP Require Authorization for IC Engines?

- Authorization is required **before** the installation of an IC engine.
- The Department may seek to impose civil penalties or require cessation of operations if facility owners or operators install engine(s) prior to receipt of written authorization.
Plan Approval Exemptions under Section 127.14

- IC engines regardless of size, with combined NOx emissions less than 100 lbs/hr, 1000 lbs/day, 2.75 tons per ozone season and 6.6 tons per year on a 12-month rolling basis. (To be proposed through RFD)

- An engine registered with the PJ M’s Emergency Load Response Program (<60 Hrs/Yr) and meet the emissions threshold stated above. (To be proposed through RFD)
Types of Authorizations

- Requests for Determinations
- General Plan Approvals/General Permits
- Case-by-Case Plan Approvals
- State-only Operating Permits
General Permits

GP-5: Natural Gas Production Facilities
GP-9: Diesel-fired internal combustion engines
GP-11: Non-road engines
GP-12: Fugitive dust sources and diesel-fired internal combustion engines at coal and coal refuse mining sites
Case-by-Case Review

- Guideline for case-by-case BAT emission standards determinations for uncontrolled NG-fired engines:
  - NOx: 0.5 gms/bhp-hr
  - THC: 0.15 gms/bhp-hr
  - CO: 0.5 gms/bhp-hr
- Depending on operating hours additional NOx and CO controls may be required.
Case-by-Case Review (Cont.)

Guideline for case-by-case BAT emission standards determinations for uncontrolled Diesel or No. 2 oil-fired engines:

- NOx: 4.5 gms/bhp-hr
- THC: 1.0 gms/bhp-hr
- CO: 2.0 gms/bhp-hr
Peak shaving Engine Generators

- Peak shaving engine generator rated at greater than or equal to 1000 BHP: NOx emission standard: 0.9 G/BHP-hr (To be proposed in revised GP for CI Engines)

- Case-by-Case evaluation option is available.
Emissions Compliance Demonstration and Monitoring

- Engines >500 BHP: One time Compliance demonstration using reference test methods, followed by continuing demonstration using alternative methods.

- Engines <500 BHP: may demonstrate compliance with emissions standards using the department approved Portable gas Analyzers.
Questions?
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