Area Source NESHAPS and Air Permits

40 CFR 63 Subpart ZZZZZ
40 CFR 63 Subpart JJJJJJJ

Richard Nelson
Senior Air Quality Specialist
(704) 336-6865
Richard.Nelson@MecklenburgCountyNC.gov
Combustion Area Sources

- **Stationary reciprocating internal combustion engines (RICE)**
  - 40 CFR 63 Subpart ZZZZZ (“4Z”)

- **Industrial, commercial, and institutional boilers**
  - 40 CFR 63 Subpart JJJJJJJJ (“6J”)

Area Sources and Air Permits

- MCAPCO requires an air permit for area sources that cannot be otherwise exempted.
- If an air permit is not required, sources subject to a NESHAP are registered by MCAQ as emission sources.
  - Though not permitted, the source still needs to be familiar and comply with the applicable federal rule requirements.
NESHAP: General Overview

- Applicability
- Definitions, units, abbreviation
- Compliance dates
- Initial and continuous compliance requirements
  - Work practice standards
  - Emission reduction measures
  - Emission standards
- Performance testing requirements
- Monitoring requirements
- Notification, recordkeeping and reporting requirements
Applicability

**RICE-4Z**
- Owners or operators of stationary RICE
- Located at a major source or an area source of HAP
- Does not include mobile engines, stationary engines being tested at a test cell/stand, or engines exempted for national security

EPA RICE NESHAP
http://www.epa.gov/ttn/atw/rice/ricepg.html

**Boilers-6J**
- Owners or operators of industrial, institutional, commercial boilers
- Located at an area source of HAP
- Does not include gas-fired boilers, hot water heaters, waste heat boilers, hazardous waste boilers, R&D boilers, and some others.

EPA Boiler Compliance
http://www.epa.gov/airquality/combustion/compliance/index.html
Definitions-Units-Abbreviations

**RICE-4Z**
- Stationary RICE is any internal combustion engine that uses reciprocating motion to convert heat energy into mechanical work and that is not mobile
- Emergency and non-emergency RICE
- Compression ignition (CI), spark ignition (SI)
- Commercial, institutional, residential emergency rice

**Boilers-6J**
- A boiler is an enclosed combustion device having the primary purpose of recovering thermal energy in the form of steam or hot water.
- Commercial, institutional, industrial boilers
- Biomass, coal, oil, natural gas fuels
- Dual fueled (natural gas/fuel oil) boilers
## Compliance Dates – Area Sources

### RICE-4Z
- New – on start-up on or after 6/12/2006
- Existing compression ignition RICE - 5/3/2013
- Existing spark ignition RICE - 10/19/2013

### Boilers-6J
- New – on start-up on or after 5/20/2011
- Existing subject to work or management practice standard – 3/21/2012, but EPA has issued a NAA letter
- Existing subject to an emission limit and/or energy assessment – 3/21/2014
Initial and Continuous Compliance Requirements

- Work practice standards
- Emission reduction measures (e.g., biennial tune-ups)
- Emissions and Operating standards
  - Emissions monitoring via CEMs, COMs, operating parameters
New or Reconstructed Stationary RICE =>6/12/2006 - 4Z Compliance

- For CI RICE: Comply with 40 CFR 60 Subpart IIII (CI NSPS)
- For SI RICE: Comply with 40 CFR 60 Subpart JJJJ (SI NSPS)
- Buy, install, and operate an engine certified to meet EPA emission requirements for the required model year and size
Emission Limits and Operating Requirements

- For existing RICE and boilers, requirements depend on equipment use (emergency/non-emergency), size (small/medium/large), type (CI/SI RICE or coal/oil/biomass boilers), type of control device, and other regulations (NSPS).
- For specific requirements, see the handouts provided and the EPA websites specified earlier for more information.
Performance Testing for Existing RICE at Area Sources

- Required for any RICE subject to an emission limit
- Initial test required no later than 180 days after the applicable compliance date:
  - 5/3/2013 CI Rice
  - 10/19/2013 SI RICE
- Subsequent performance testing:
  - Every 8760 operating hrs or 3 calendar years, whichever comes first
Performance Testing for Boilers at Area Sources

- Required for any boiler subject to an emission limit
- Initial test required no later than 180 days after the applicable compliance date:
  - 3/21/2014 existing boilers
  - Start-up date for new or reconstructed boilers
- Subsequent performance testing:
  - Every 3 years
Notifications to MCAQ for Existing RICE at Area Sources

- No notifications for all emergency RICE, landfill/digester gas RICE, and non-emergency 2SLB SI RICE
- For non-emergency >300 HP CI RICE and most >500 HP 4SLB and 4SRB SI RICE:
  - Initial notification that a RICE is subject to the rule:
    - For existing CI RICE: 8/31/2010
    - For existing SI RICE: 2/16/2011
  - Notification to conduct performance test
    - At least 60 days prior to scheduled test date
  - Notification of compliance status
    - No later than 60 days after a performance test or compliance date
Notifications to MCAQ for Boilers at Area Sources

- Initial notification that a boiler is subject:
  - For existing boilers: 9/17/2011
  - For new or reconstructed boilers no later than 120 days after start-up

- Notification to conduct performance test
  - At least 60 days prior to scheduled test date

- Notification of compliance status
  - No later than 60 days after a performance test or 120 days after compliance date

- Notification of performance evaluation for continuous monitoring system (e.g. COMS, CEMS)
  - Due at least 60 days before evaluation.
Other NESHAP Requirements

● **Reporting**
  - Annual/semi-annual compliance report/certification
  - Performance test report

● **Recordkeeping (on site)**
  - Inspections/calibrations/maintenance/tune-ups performed
  - Fuel usage/types/operating hours/emergency-non-emergency monthly
  - Malfunctions and corrective actions
  - Copies of all required notifications and reports onsite
Compliance Resources - USEPA

- EPA Combustion Portal: http://www.combustionportal.org/
- Specific NESHAP rule websites:
  - 4Z: http://www.epa.gov/ttn/atw/rice/ricepg.html
  - 6J: http://www.epa.gov/ttn/atw/boiler/boilerpg.html
    - Implementation Information
    - Proposed and Promulgated Rules
    - Technical Information
    - Fact Sheets
MCAQ Compliance Assistance

- **MCAQ Website**
  - [http://charmeck.org/mecklenburg/county/AirQuality/Pages/default.aspx](http://charmeck.org/mecklenburg/county/AirQuality/Pages/default.aspx)

- **Contacts: (704) 336-5430**
  - Your facility permit contact
  - Richard Nelson:
    - Email: Richard.Nelson@MecklenburgCountyNC.gov
  - Chuck Greco:
    - Email: Chuck.Greco@MecklenburgCountyNC.gov
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Questions?