

AGENDA – FEDERAL ENGINES RULES

I. Initial Overview

8:00 - 9:00 a.m. :: Module A: Clean Air Act Summary of Key Provisions Affecting the RICE NESHAP Rule

- Welcome & Introductions
 - First, why do we have this rule when the national average of best 12% is zero control? (i.e., the MACT Floor is zero)
 - History of CAA and air toxics legislation
 - CAA Amendments of 1990
 - MACT vs. GACT
 - Residual risk
 - Urban air toxics strategy
 - Key cases (MACT vacatur cases, SSM decision, CO Surrogates, pollutant-by-pollutant, etc)
 - State /tribal/local agency delegations (federal preemption and delegation refusals)
 - Why is this rule so complicated?
 - Rulemaking process
 - NSPS (for criteria pollutants) incorporated into NESHAP (for HAPs)
 - Over a million engines affected - most of them previously unregulated
 - Court rulings & CAA interpretations
 - New Developments: Reconsiderations & Judicial Challenges

II. The Applicability Maze

9:00 - 10:15 a.m. :: Module B: RICE NESHAP - Requirements, Challenges, and Strategies for Area Sources

- Applicability & Exemptions (a.k.a. "the applicability maze")
 - EPA's area source rule implementation guidance
 - Determining bHP of the engine (just convert from kW?)
 - Navigating & using tables of requirements in the rule
 - R/C/I exemptions guidance (exemptions vs. "no applicable requirements")
- Key Definitions of Emissions Standards
 - Engine type & usage
 - Importance of identifying the manufacturer
 - Area source
 - Major source
- Developing Your Compliance Plan & Identifying Compliance Requirements
- Notifications, Recordkeeping & Reporting Requirements
- Emissions Testing

10:15 - 10:30 a.m. :: Morning Break

10:30 a.m. - 12:00 p.m. :: Module C: RICE NESHAP - Requirements, Challenges, and Strategies for Major Sources

- Applicability & Exemptions
 - EPA's major source rule implementation guidance
 - Using the tables in the regs to determine rule requirements

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- Key Definitions
- Emissions Standards
 - Engine type & usage
 - Major source
- Compliance Requirements
- Notifications, Recordkeeping & Reporting Requirements
- Emissions Testing
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12:00 - 1:00 p.m. :: Lunch

1:00 - 1:30 p.m. :: Review Modules B & C - Review/Discuss RICE NESHAP Summary (Area/Major)

III. NSPS as NESHAP Rule Compliance Tool & Source of Confusion

1:30 - 3:00 p.m. :: Module D: Determining RICE New Source Performance Standards Compliance Requirements

- The NSPS rules include two alternative compliance approaches:
 - "Certified"
 - "Compliant"
- Compression ignition engine subject to the NSPS at 40 CFR 60, Subpart IIII as follows:
 - Constructed (ordered) after July 11, 2005 and manufactured after April 1, 2006 (July 1, 2006 for fire pump engines), or
 - "Modified" or reconstructed after July 11, 2005
 - "Certified" vs. "Compliant" Engines
 - Except for engines > 30 liters per cylinder (l/cyl) displacement, performance testing is not required - you achieve compliance by:
 - purchasing a new engine that has been EPA certified by the manufacturer, and
 - installing, configuring, operating, and maintaining the engine per the manufacturer's instructions
- Spark ignition engine subject to the NSPS at 40 CFR 60, Subpart JJJJ as follows:
 - Constructed (ordered) after June 12, 2006 and the engine is:
 - >500 HP manufactured on or after July 1, 2007 (except lean burn 500=HP<1,350)
 - Lean burn 500=HP<1,350 manufactured on or after January 1, 2008
 - <500 HP manufactured on or after July 1, 2008
 - Emergency >25 HP manufactured on or after January 1, 2008
 - Modified/reconstructed after June 12, 2006
 - For certain spark ignition engines manufactured on or after July 1, 2008 the engine manufacturer is required to certify that the engine meets emission limits. These SI engine types include:
 - < 25 HP
 - Gasoline non-emergency engines > 25 HP
 - Rich burn LPG engines >25 HP
 - For other spark ignition engines, the EPA has made it optional for the manufacturer to certify that their engines meet the applicable emission limits

3:00 - 3:15 p.m. :: Afternoon Break

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IV. Compliance and Implementation

3:15 - 5:00 p.m. :: Module E: RICE NESHAP Implementation Issues (starting with CI engines)

- Site-Specific Monitoring Plans
- Performance Evaluations and Continuous Monitoring Systems
- Emissions Testing Protocols, Requirements & Options
- Timing of New Amendments vs. Compliance Dates
- Emergency RICE definition
- Emergency demand response vs. local grid support vs. economic demand response
- R/C/I exemptions (why are hospitals institutional, but water plants are not?)
- Emissions controls and options (requesting alternative controls & testing)
- Startup, shutdown, and malfunction (SSM) considerations (and safe harbors)
- CI vs. SI engines (why are they treated differently and what are some of their similarities?)
- Using NSPS engines for RICE NESHAP compliance (date overlaps & tier confusion)
- Modification vs. re-construction, vs. "new" engine re-builds
- Dual-fuel engines, LF gas & DG engines
- Black start engines, limited-use engines, and emergency DRM (and peak shaving)
- ULSD fuel conversion, fuel compliance dates, and concerns
- Cold climate issues
- State vs. federal rules

DAY 2 AGENDA

8:00 - 10:00 a.m. :: Module F

- Upcoming issues & proposed amendments
 - Proposed changes:
 - Emergency demand response allowance (100 hrs. vs. 15 hrs.)
 - Change in both NSPS and NESHAP
 - Peak shaving
 - Enforcement: Over use it & lose it policy
 - How will your inspectors make this determination?
 - SI engines - sparsely populated areas & pipelines
 - DOT Level 1 & alternate definition
 - Work practices
 - SI engines - non-sparsely populated areas
 - Annual "checks"
 - Technology Standard
 - California & Alaska provisions
 - Reconsideration petitions & court reviews pending
 - Effects of reconsideration issues on NSPS requirements
 - Updated emergency RICE Defn.
 - NSPS overlaps & gaps

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- Other effects
- Developments to watch
 - Tightening Ozone Standards & Other NAAQS
 - GHG Issues

10:00 - 10:15 a.m. :: Morning Break

10:15 - 11:15 a.m. :: Module G: Nuts and Bolts Implementation Challenges: Technical Issues to Consider

- Type of control technology and options (handling alternate requests from sources)
- Operating controls, sensors, and data management - recordkeeping issues, rolling averages
- Crankcase Ventilation Systems: Is your breather clogged?
- Back pressure requirements and power issues (possible malfunctions @ conditions)
- Work practice requirements & incorporation of manufacturers' maintenance manuals
- Catalyst placement and logistics (safety concerns for inspectors)
- Supportive structure and engine cabinets (again safety considerations)
- Catalyst sizing and meeting specifications (engineering reviews)
- Catalyst configuration and exhaust manifolds (visual appearance)
- Service and equipment access panels (troubleshooting & visual inspections)
- Compliance testing and testing ports
- Continuous monitoring and calibration issues
 - CPMS issues in the rule
 - Site-specific monitoring plan requirements
 - QC, calibration, documentation requirements
- Recertification/"new" engine re-build (documentation requirements)
- New vs. existing - fine points & quirks
- Permit conditions (specific conditions & general conditions related to stationary engines)
- Developments to watch
- Further information & resources

11:15 a.m. - 12:00 p.m. :: Module H

- Compliance Inspections for RICE Source Facilities (preview)
- Rule #1: Safety during the Inspection
- Background Information & Preparation:
 - Air permit (whether the facility is already permitted -- or not)
 - Number of engines, usage of engines, horsepower of the engines (stationary?)
 - Annual hours of operation, annual hours of operation for non-emergency purposes, and annual hours for maintenance checks and readiness purposes
- Key Compliance Requirements:
 - Allowable emission levels
 - Standard work practices
 - Engine operating limitations

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- Start-up requirements
- Compliance demonstration/Excess Emissions o Reporting & Certification requirements
- Facility-Specific Issues:
 - Type of control device(s)
 - Exhaust configuration(s)
 - Data management systems
 - CEMS, CPMS & operating control systems
 - Access issues/is the facility staffed?

12:00 - 1:00 p.m. :: Lunch

1:00 - 2:30 p.m. :: Compliance & Implementation Review

1:20 - 2:30 p.m. :: Module I: Conducting Source Tests for RICE Source Facilities & Testing Protocol Development

- State observers have existing procedures (coincides with regular inspection?)
- New developments on THC (% removal) surrogates
- A few items to note:
 - Is the facility routinely using a handheld device to measure CO or O2?
 - "Dry basis" vs. moisture measurements
 - Is the facility using the % reduction or PPMVD emissions standard?
 - Is the port size adequate for both PM & CO/Formaldehyde measurements?
- Safety issues (e.g., insulated stack at testing platform) o Number, size, and location of test ports
- Proximity of test ports to CEMS/COMS
- Testing platform: size and access
- Handrail height
- Power requirements; number and location of electrical connections
- Suspension of sampling train
- Testing trailer staging area
- Any additional sample ports
- Production data (consistent with protocol submittal?) & Performance Evaluation
- Emissions limits (ppmvd vs. % reduction)
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2:30 - 2:45 p.m. :: Afternoon Break

2:45 - 4:00 p.m. :: Module J: Permits

- Permit conditions
 - Stationary engines present some interesting issues
 - "Game changer" - for many facilities, no prior permits
 - 71 different regulatory scenarios ("It's complicated...")
 - May need to update existing permit application forms
 - SI examples:
 - SI: spark ignition 2SLB: 2-stroke lean burn
 - 4SLB: 4-stroke lean burn

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- 4SRB: 4-stroke rich burn
- LFG/DG: landfill gas/digester gas
 - Surrogates vs. target HAPs
 - Alternative limits
 - "No applicable requirements" vs. "not a regulated category"
- Even the exemptions require a reference to the rule
- If not a regulated category, how is it listed in the permit? (if at all . . .)

4:00 - 4:30 p.m. :: Module J - Permit Discussion Exercise

- Discuss sample permit language & procedures for several scenarios

4:30 - 5:00 p.m. :: Wrap-up & Q/A

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- Issue-by-issue review
- Assessment of learning outcomes and any follow-up questions regarding the learning objectives
- Training of small-to-medium sources (i.e., previously unregulated) versus larger (already permitted) sources
- Other questions?
- Online resources & publications for future reference