



# Ask the Inspector: Clean Air Act Compliance

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# Clean Air Act Inspections

- What inspectors look for
  - Permits
  - Applicable regulations
  - Sources of air emissions
  - Air pollution control technology
  - Records, emissions testing data

# How the Clean Air Act Regulations May Apply to Your Facility

- Permits – Title V, Permits to Install/Operate
- Area Source Regulations & Guidance:  
[www.epa.gov/ttn/atw/area/arearules.html](http://www.epa.gov/ttn/atw/area/arearules.html)
- Asbestos – Demolition, Renovation, & Disposal
- Generators/Engines – NESHAP & NSPS Regulations
- CFCs –Industrial Leak Rate Regulations

# Permits

- Title V – Major Sources, some Area Sources
- Operating Permits
  - Area sources
  - Conditions wrapped into Title V
- Subject Process Units – Boilers, Furnaces, Incinerators, Generators
  - Any sources of air emissions need to be considered
  - Inspectors finding incomplete permits

# Permit Content

- Air Pollution Control Devices – Baghouses, Scrubbers, Thermal Oxidizers
- Operating limits
- Testing requirements
- Recordkeeping and reporting
  - Inspectors find incomplete and/or inaccurate records and reports
  - Permits may be incomplete: So know your Regs!

# Asbestos Regulations

- Section 112 of Clean Air Act regulates Hazardous Air Pollutants (HAPs)
  - National Emission Standards for Hazardous Air Pollutants (NESHAPs)
- 40 CFR Part 61, Subpart M – National Emission Standards for Asbestos (Asbestos NESHAP)  
[www.epa.gov/asbestos](http://www.epa.gov/asbestos)
- Inspectors find violations regarding notification, improper removal, labeling, and disposal

# Asbestos NESHAP

- Asbestos NESHAP – Demolition, Renovation, Disposal
  - Category I, Category II, and Friable
- Reporting Requirements
  - Report if asbestos is present, how much is being handled, and how it will be handled
- Safe Handling and Disposal
  - Adequately wet guidance
  - Packaged and labeled, sent to appropriate landfill

# Reciprocating Internal Combustion Engines (RICE)

- NESHAP for Stationary RICE
  - 40 CFR Part 63, Subpart ZZZZ
  - Applicability flowchart at:  
[www.epa.gov/ttn/atw/rice/flowchart\\_applicability.ppt](http://www.epa.gov/ttn/atw/rice/flowchart_applicability.ppt)
- NSPS for Stationary Compression Ignition (CI) RICE
  - 40 CFR part 60 subpart IIII
- NSPS for Stationary Spark Ignition (SI) RICE
  - 40 CFR part 60 subpart JJJJ

Summary of Requirements for all 3 regulations at: [www.epa.gov/ttn/atw/rice/requirements\\_10-8-2010.xls](http://www.epa.gov/ttn/atw/rice/requirements_10-8-2010.xls)

Applicability Determinations Index (ADI) at: <http://cfpub.epa.gov/adi/>

# How Are These Rules Different?

## ■ RICE NESHAP

- Applies to **existing**, new, and reconstructed stationary engines (both CI and SI)
- Includes emergency engines
- Focus is **air toxics**

## ■ CI/SI NSPS

- Applies to new, **modified**, and reconstructed stationary CI/SI engines
- Includes emergency engines
- Focus is **criteria pollutants**

- Applicability, Control Measures & Reporting/Recordkeeping Requirements vary for Major and Area Sources of HAPs

# RICE NESHAP: 2010

	AREA SOURCES		MAJOR SOURCES	
> 500 HP	<b>NEW</b> 2008 rule	<b>EXISTING</b> 2010 rules	<b>NEW</b> 2004 rule	<b>EXISTING</b> 2004 rule 2010 rule (non-emergency CI)
≤ 500 HP	<b>NEW</b> 2008 rule	<b>EXISTING</b> 2010 rules	<b>NEW</b> 2008 rule	<b>EXISTING</b> 2010 rules

2004: Covered >500HP at major sources

2008: Added new engines ≤500HP at majors plus all new engines at area sources

2010: Added existing engines ≤ 500 HP located at major sources, all existing engines at area sources, and existing non-emergency CI engines >500 HP at major sources

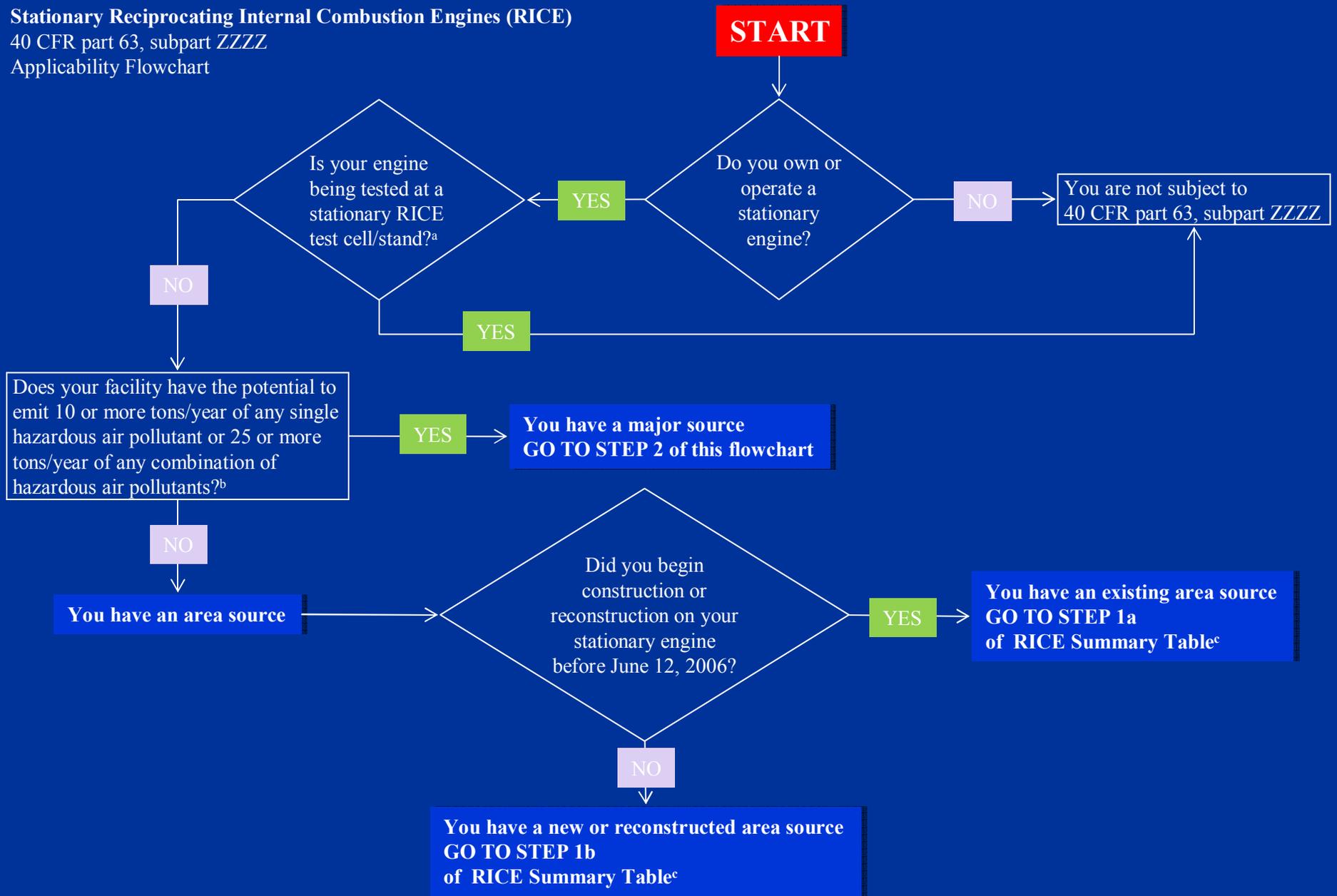
# Common RICE Violations

- Emergency generator need to have hour meters
  - Limited amount of time in operation to be considered emergency generator
- In cases where facility sells its power, cannot be considered emergency generator any longer
  - Subject to more regulations than emergency generator
- Improper recordkeeping regarding operating hours and fuel usage
  - Rolling 12-month averages

# Stationary Reciprocating Internal Combustion Engines (RICE)

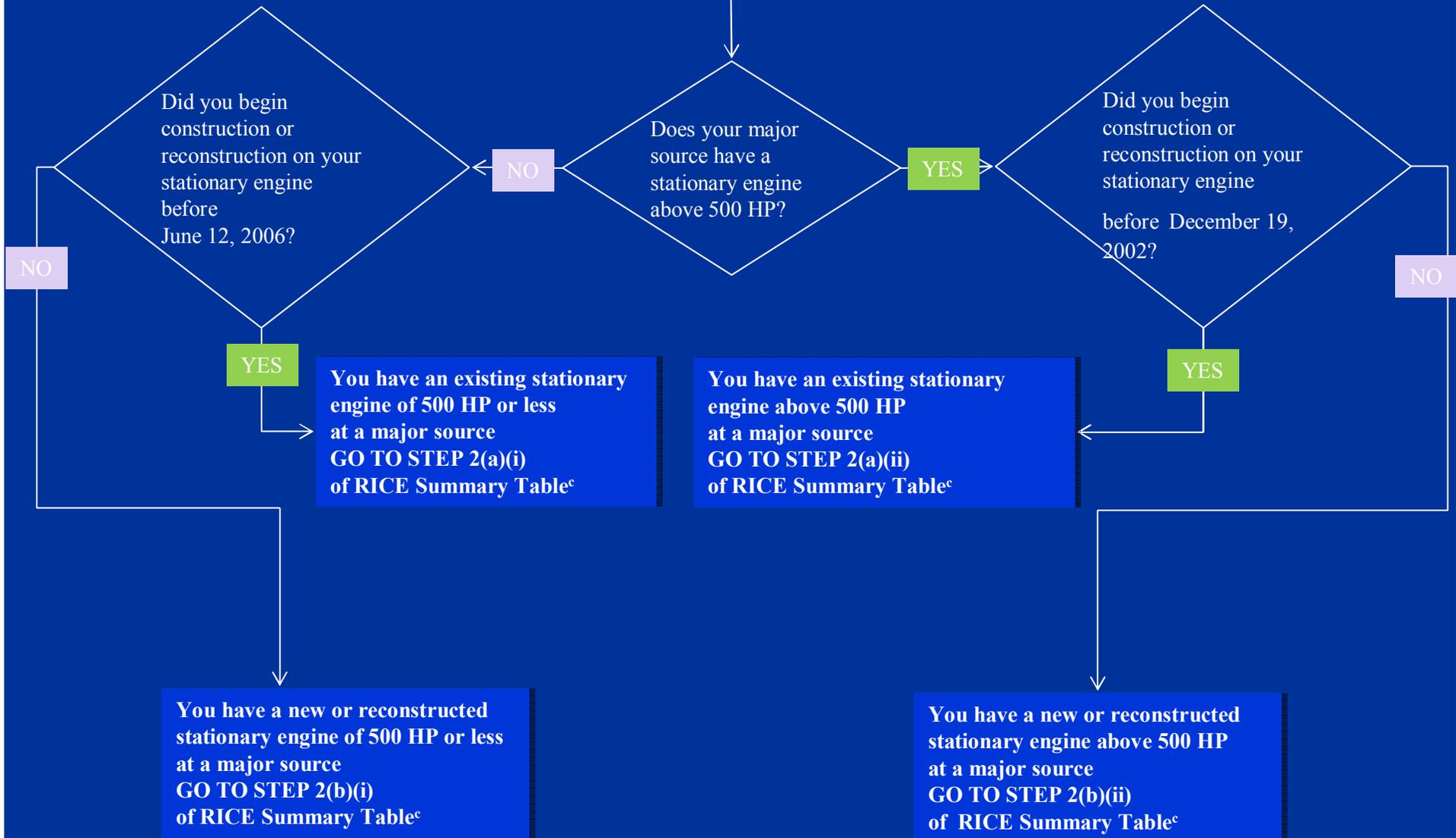
40 CFR part 63, subpart ZZZZ

Applicability Flowchart



**Stationary Reciprocating Internal Combustion Engines (RICE)**  
40 CFR part 63, subpart ZZZZ  
Applicability Flowchart

**STEP 2**



<sup>c</sup>The RICE Summary Table of Requirements provides additional information on 40 CFR part 63, subpart ZZZZ requirements and is available at <http://www.epa.gov/ttn/atw/rice/ricepg.html>.

## Footnotes From Flowchart 1:

<sup>a</sup>An engine test cell/stand is any apparatus used for testing uninstalled stationary or uninstalled mobile (motive) engines.

<sup>b</sup>For assistance in determining the potential to emit, please refer to <http://www.epa.gov/ttn/chief/ap42/index.html> or contact your EPA regional office or state permitting staff. To determine the potential to emit, you may use emission factors from <http://www.epa.gov/ttn/chief/ap42/ch03/index.html>, test data, or other published information.

# Chlorofluorocarbons (CFCs)

- Section 608 of the Clean Air Act
- Protection of the Stratospheric Ozone – 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction
  - Stationary Refrigeration Information  
[www.epa.gov/ozone/title6/608/index.html](http://www.epa.gov/ozone/title6/608/index.html)
  - Industrial Leak Rates Guidance  
[www.epa.gov/ozone/title6/608/compguid/compguid.html](http://www.epa.gov/ozone/title6/608/compguid/compguid.html)
- Inspectors find incomplete records, no records onsite for recovery equipment, technician certification

# Benefits of Repair & Recovery

- Environmental protection
  - CFCs (e.g. R-12) and HCFCs (e.g. R-22) are Ozone-Depleting Substances (ODS)
  - HFCs (e.g. 134a) have Global Warming Potential
- Section 608 prohibits knowingly venting of any ODS or its substitutes
  - Not repairing a known leak is considered “knowingly venting”
  - May result in enforcement action

# Leak Rate Regulations

- Equipment that contains a CFC or HCFC refrigerant with full charge more than 50 lbs
- When a leak is found and refrigerant added, a leak rate must be calculated
- If leak rate is triggered, repairs are required within 30 days

# Leak Rates

Appliance Type	Trigger Leak Rate
Commercial refrigeration	35%
Industrial process refrigeration	35%
Comfort cooling	15%
All other appliances	15%

# Leak Rate Calculation

- % Annual Leak Rate =  $[\text{lbs of refrigerant added} / \text{lbs of Full Charge}] * [365 / \# \text{ of days since refrigerant last added}] * 100$
- If leak rate is triggered, repairs are required within 30 days, or a retrofit or retirement plan must be developed within 30 days

# Retrofit Option

- Alternative to repairing the leak
- Need to write a retrofit plan and keep on site
- Need to execute plan within one year
- Need to retrofit to a lower ODS-containing refrigerant or HFC

# Recordkeeping

- Date and unit added refrigerant
- Amount and type of refrigerant added
- Location of leak and repair
- Calculated leak rate
- Type of initial verification
- Date and type of follow-up verification
- Maintain all records for three years

# Those CFC Web Sites Again!

- Stationary Refrigeration Information

- Fact sheets, technician certification, recovery equipment certification form

[www.epa.gov/ozone/title6/608/index.html](http://www.epa.gov/ozone/title6/608/index.html)

- Industrial Leak Rates Guidance

[www.epa.gov/ozone/title6/608/compguid/compguid.html](http://www.epa.gov/ozone/title6/608/compguid/compguid.html)

# Other Common Violations Found at Federal Facilities

- Hospital/Medical/Infectious Waste Incinerators
  - Improperly operated, burning unpermitted waste
  - [www.epa.gov/ttn/atw/129/hmiwi/rihmiwi.html#RULE](http://www.epa.gov/ttn/atw/129/hmiwi/rihmiwi.html#RULE)
  - [www.epa.gov/ttn/atw/129/hmiwi/hmiwi\\_brochure.pdf](http://www.epa.gov/ttn/atw/129/hmiwi/hmiwi_brochure.pdf)
- Degreasing Operations
  - Covers left open, improper VOC calculations
- Boilers
  - Late or no notification, late stack testing, no fuel quality reports and/or fuel quality certifications
- Regulations & Guidance:  
[www.epa.gov/ttn/atw/mactfnlalph.html](http://www.epa.gov/ttn/atw/mactfnlalph.html)

# Questions?



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