



Ask the Inspector: Clean Air Act Compliance

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U.S. EPA – Region 5

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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
- 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
- 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
- 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

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	NEW	EXISTING	NEW	EXISTING
	2008 rule	2010 rules	2004 rule	2004 rule 2010 rule (non-emergency CI)
≤ 500 HP	NEW	EXISTING	NEW	EXISTING
	2008 rule	2010 rules	2008 rule	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

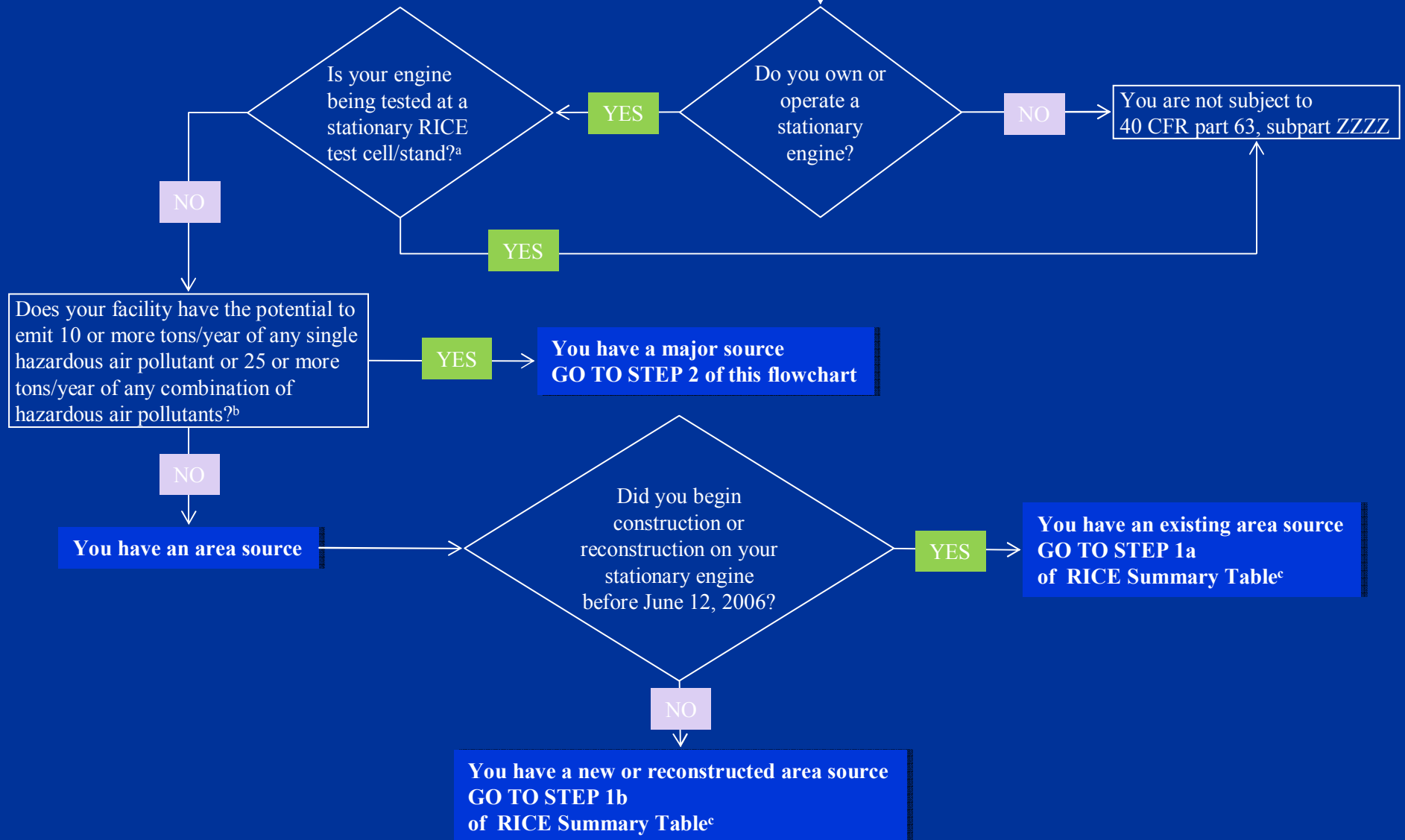
Common RICE Violations

- 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

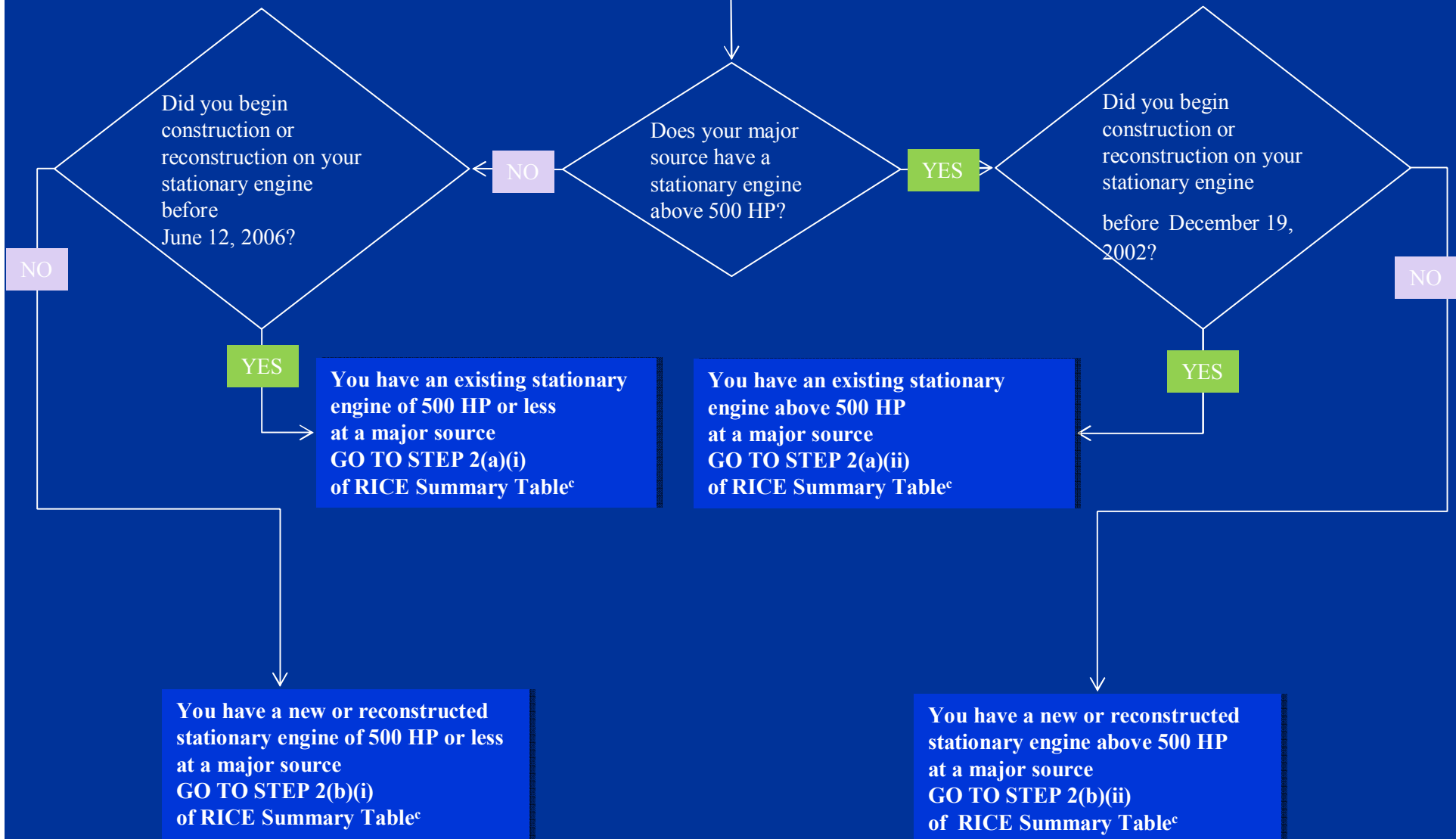


Stationary Reciprocating Internal Combustion Engines (RICE)

40 CFR part 63, subpart ZZZZ

Applicability Flowchart

STEP 2



^cThe 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:

^aAn engine test cell/stand is any apparatus used for testing uninstalled stationary or uninstalled mobile (motive) engines.

^bFor 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
 - Industrial Leak Rates Guidance
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

- $\% \text{ Annual Leak Rate} = [\text{lbs of refrigerant added} / \text{lbs of Full Charge}] * [365 / \# \text{ of days since refrigerant last added}] * 100$
- 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

- Industrial Leak Rates Guidance

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
 - 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

Questions?



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