

Note: This monitoring checklist does not include changes from the 12/23/11 final rule 76 FR 80554 (Technical Revisions and Clarifications to subpart A and subpart W), or corrections from the pending proposed rule, "2012 Technical Corrections, Clarifying and Other Amendments to the Greenhouse Gas Reporting Rule, and Proposed Confidentiality Determinations for Certain Data Elements of the Fluorinated Gas Source Category." EPA is working to update these checklists. Additional information on the subpart W rules can be found at <http://www.epa.gov/climatechange/emissions/subpart/w.html>. Reporters should refer to the e-CFR for the final rule (http://ecfr.gpoaccess.gov/cqi/t/text/text-idx?c=ecfr&sid=9415fad5f1c7ea4d940d308e1ea74e11&tpl=/ecfrbrowse/Title40/40cfr98_main_02.tpl).

Petroleum and Natural Gas Systems

Monitoring Checklist for Onshore Petroleum and Natural Gas Production



Final Rule: Mandatory Reporting of Greenhouse Gases (40 CFR Part 98)

What must be monitored?

If emissions are going to flares, need data elements under the source flare stacks.

Record these parameters on an annual basis, unless specified otherwise.

1. Natural Gas Pneumatic Device Venting

- | | |
|--|---|
| <input type="checkbox"/> Actual and estimated counts of high bleed devices | <input type="checkbox"/> Concentration of CO ₂ |
| <input type="checkbox"/> Actual and estimated counts of low bleed devices | <input type="checkbox"/> Concentration of CH ₄ |
| <input type="checkbox"/> Actual and estimated counts of intermittent bleed devices | |

2. Natural Gas Driven Pneumatic Pump Venting

- | | |
|---|---|
| <input type="checkbox"/> Count of natural gas driven pneumatic pumps | <input type="checkbox"/> Concentration of CO ₂ in produced natural gas |
| <input type="checkbox"/> Concentration of CH ₄ in produced natural gas | |

3. Well Venting for Liquids Unloading

If Using Calculation Methodology 1:

For Methodology 1, record these parameters once in two years.

- | | |
|--|---|
| <input type="checkbox"/> Count of wells vented to the atmosphere for liquids unloading | <input type="checkbox"/> Count of plunger lifts. |
| <input type="checkbox"/> Cumulative amount of time of venting from all wells of same tubing diameter and producing horizon/formation combination during the year (hours) | <input type="checkbox"/> Average flow rate of measured well venting for the recorded time of one representative well venting to the atmosphere under actual conditions for each unique tubing diameter and producing horizon/formation combination during the year (cubic feet per hour of venting) |
| <input type="checkbox"/> Average casing diameter (inches) | <input type="checkbox"/> Actual temperature (°F) |
| <input type="checkbox"/> Actual pressure (psia) | <input type="checkbox"/> Cumulative number of unloadings vented to the atmosphere |

If Using Calculation Methodology 2:

- | | |
|--|--|
| <input type="checkbox"/> Count of wells vented to the atmosphere for liquids unloading | <input type="checkbox"/> Count of plunger lifts. |
| <input type="checkbox"/> Number of vents per year | <input type="checkbox"/> Casing diameter (inches) |
| <input type="checkbox"/> Well depth to first producing horizon (feet) | <input type="checkbox"/> Shut-in pressure (psia) |
| <input type="checkbox"/> Time that the well was left open to the atmosphere during unloading (hours) | <input type="checkbox"/> Average sales flow rate of gas well (cubic feet per hour) |
| <input type="checkbox"/> Actual pressure (psia) | <input type="checkbox"/> Actual temperature (°F) |
| <input type="checkbox"/> Cumulative number of unloadings vented to the atmosphere | |

If Using Calculation Methodology 3:

- | | |
|--|---|
| <input type="checkbox"/> Count of wells vented to the atmosphere for liquids unloading | <input type="checkbox"/> Count of plunger lifts |
| <input type="checkbox"/> Number of vents per year | <input type="checkbox"/> Tubing diameter (inches) |
| <input type="checkbox"/> Tubing depth to plunger bumper (feet) | <input type="checkbox"/> Sales-line pressure (psia) |
| <input type="checkbox"/> Time that well was left open to the atmosphere during unloading (hours) | <input type="checkbox"/> Average sales flow rate of the measured well venting (cubic feet per hour) |

- Actual pressure (psia)
- Cumulative number of unloadings vented to the atmosphere
- Actual temperature (°F)

4. Gas Well Venting During Completions without Hydraulic Fracturing

- Average daily gas production rate of all wells completed during the reporting year (cubic feet/hour)
- Cumulative amount of time of all well completions venting (hours)
- Actual pressure (psia)
- Total number of days of gas venting to the atmosphere during backflow for completion
- Total count of completions in calendar year
- Actual temperature (°F)
- Vent and flared emissions separately (cubic feet)

5. Gas Well Venting During Workovers without Hydraulic Fracturing

- Actual pressure (psia)
- Total count of workovers in calendar year
- Total number of days of gas venting to the atmosphere during backflow for workover
- Actual temperature (°F)
- Vent and flared emissions separately (cubic feet)

6. Gas Well Venting During Well Completions with Hydraulic Fracturing

For Methodologies 1 & 2, record these parameters once in two years.

- Cumulative amount of time of all well completion venting in a field during the year (hours)
- Number of completions employing reduced emissions completions and engineering estimate based on best available data of the amount of gas recovered to sales
- Average flow rate of the measured well completion venting under actual conditions converted to standard conditions (cubic feet per hour)
- Total count of completions in Calendar Year

- | | |
|---|---|
| <input type="checkbox"/> Actual pressure (psia) | <input type="checkbox"/> Actual temperature (°F) |
| <input type="checkbox"/> Vent and flared emissions separately at standard conditions (cubic feet) | <input type="checkbox"/> Volume of CO ₂ or N ₂ injected gas at standard conditions that was injected into the reservoir during an energized fracture job (cubic feet) |
| <input type="checkbox"/> Volume of natural gas at standard conditions that was recovered into a sales pipeline (cubic feet) | <input type="checkbox"/> Total number of days of gas venting to the atmosphere during backflow for completion |

If Using Calculation Methodology 1:

- Average flow rate of venting to atmosphere or routing to flare by recording flow meter (cubic feet per hour)

If Using Calculation Methodology 2:

- | | |
|---|---|
| <input type="checkbox"/> Average flow rate under subsonic/sonic flow conditions (cubic feet per hour) | <input type="checkbox"/> Actual pressure (psia) |
| <input type="checkbox"/> Cross sectional area of orifice (m ²) | <input type="checkbox"/> Upstream temperature (K) |
| <input type="checkbox"/> Upstream pressure (psia) | <input type="checkbox"/> Downstream pressure (psia) |

7. Gas Well Venting During Well Workovers with Hydraulic Fracturing

For Methodologies 1 & 2, record these parameters once in two years.

- | | |
|--|--|
| <input type="checkbox"/> Cumulative amount of time of all well workover venting in a field during the year (hours) | <input type="checkbox"/> Average flow rate of the measured well workover venting under actual conditions converted to standard conditions (cubic feet per hour) |
| <input type="checkbox"/> Number of workovers employing reduced emissions completions and engineering estimate based on best available data of the amount of gas recovered to sales | <input type="checkbox"/> Total count of workovers in calendar year |
| <input type="checkbox"/> Actual pressure (psia) | <input type="checkbox"/> Actual temperature (°F) |
| <input type="checkbox"/> Vent and flared emissions separately at standard conditions (cubic feet) | <input type="checkbox"/> Volume of CO ₂ or N ₂ injected gas at standard conditions that was injected into the reservoir during an energized fracture |

- Volume of natural gas at standard conditions that was recovered into a sales pipeline (cubic feet)
- job (cubic feet)
- Total number of days of gas venting to the atmosphere during backflow for workovers

If Using Calculation Methodology 1:

- Average flow rate of venting to atmosphere or routing to flare by recording flow meter (cubic feet per hour)

If Using Calculation Methodology 2:

- Average flow rate under subsonic/sonic flow conditions (cubic feet per hour)
- Actual pressure (psia)
- Cross sectional area of orifice (m2)
- Upstream temperature (K)
- Upstream pressure (psia)
- Downstream pressure (psia)

8. Flare Stack Emissions

- Continuous flow monitor on flare (Y/N)
- Continuous gas analyzer on the gas to the flare (Y/N)
- Volume of gas sent to flare annually (cubic feet)
- Percent of gas sent to un-lit flare
- Flare combustion efficiency (98% if manufacturer data not available)
- Mole fraction of CO₂ in gas to the flare
- Mole fraction of gas hydrocarbon constituents (such as methane, ethane, propane, butane, and pentanes-plus)
- Actual Process Temperature (°F)
- Actual Process Pressure (psia)

9. Storage Tanks Emissions

- Storage tank receiving separator oil have a vapor recovery system (Y/N)
- Count of wellhead separators that dump valve factor is applied to, if well head gas-liquid separator liquid dump valve is not functioning properly during the calendar year

- Total time well head gas-liquid separator liquid dump valve is not closing properly in the calendar year (hours)

- Percent of gas sent to un-lit flare

If Using Calculation Methodology 1:

- Range of concentrations of flash gas, for CH₄ and CO₂
- Average separator temperature (°F)
- Average separator pressure (psig)
- Average sales oil or stabilized oil API gravity (°)
- Number of wellhead separators sending oil to atmospheric tanks
- Best estimate of count of stock tanks not at well pads receiving oil
- Count of tanks with emissions control measures, either vapor recovery system or flaring, for tanks at well pads

- Sales oil or stabilized oil production rate (barrels per day)
- Ambient air temperature (°F)
- Ambient air pressure (psig)
- Separator oil composition and Reid vapor pressure
- Count of hydrocarbon tanks at well pads
- Total volume of oil from all wellhead separators sent to tank(s) annually (barrels)
- Best estimate of count of stock tanks assumed to have emissions control measures not at well pads, receiving oil

If Using Calculation Methodology 2:

- Number of wellhead separators sending oil to atmospheric tanks
- Separator pressure (psig)
- Count of hydrocarbon tanks at well pads
- Best estimate of count of stock tanks not at well pads receiving oil
- Best estimate of count of stock tanks assumed to have emissions control measures not at well pads, receiving

- Separator temperature (°F)
- Sales oil or stabilized oil API gravity (°)
- Total volume of oil from all wellhead separators sent to tank(s) annually (barrels)
- Count of tanks with emissions control measures, either vapor recovery system or flaring, for tanks at well pads
- Range of concentrations of flash gas, for CH₄ and CO₂

oil

- Separator oil composition at separator pressure and temperature (for the assumption that all of the CH₄ and CO₂ in solution in the separator oil is emitted)

If Using Calculation Methodology 3:

- Total volume of sales oil from all wells annually (barrels)
- Total number of wells sending oil to separators off the well pads
- Count of hydrocarbon tanks on wellpads
- Produced oil and gas compositions (for the assumption that all of the CH₄ and CO₂ in both oil and gas are emitted from the tank)
- Total number of wells sending oil directly to tanks
- Sales oil API gravity range for wells sending oil directly to tanks and for wells sending oils to separators off the well pads (°)
- Count of hydrocarbon tanks, both on and off well pads assumed to have emissions control measures: either vapor recovery system or flaring of tank vapors

If Using Calculation Methodology 4:

- Total volume of sales oil from all wells annually (barrels)
- Total number of wells sending oil to separators off the well pads
- Count of hydrocarbon tanks on wellpads
- Well production oil and gas compositions (for the assumption that all of the CH₄ and CO₂ in the oil are emitted from the tank)
- Total number of wells sending oil directly to tanks
- Sales oil API gravity range for wells sending oil directly to tanks and for wells sending oils to separators off the well pads (°)
- Count of hydrocarbon tanks, both on and off well pads assumed to have emissions control measures: either vapor recovery system or flaring of tank vapors

If Using Calculation Methodology 5:

- Number of wellhead separators
- Number of wells without wellhead

- | | |
|--|--|
| <input type="checkbox"/> Total volume of oil production annually (barrels) | <input type="checkbox"/> separators |
| <input type="checkbox"/> Count of hydrocarbon tanks on well pads | <input type="checkbox"/> Best estimate of fraction of production sent to tanks with assumed control measures: either vapor recovery system or flaring of tank vapors |

10. Reciprocating Compressor Rod Packing Venting

- | | |
|---|--|
| <input type="checkbox"/> Count of compressors | <input type="checkbox"/> Actual Process Temperature (°F) |
| <input type="checkbox"/> Actual Process Pressure (psia) | |

11. Well Testing Venting and Flaring

- | | |
|--|---|
| <input type="checkbox"/> Average gas –to-oil ratio (GOR) of the hydrocarbon production from each well tested (cubic feet of gas per barrel of oil) | <input type="checkbox"/> Flow rate for the well being tested (barrels of oil per day) |
| <input type="checkbox"/> Duration of the well test (number of days during the year) | <input type="checkbox"/> Number of wells tested per basin in calendar year |
| <input type="checkbox"/> Actual Process Pressure (psia) | <input type="checkbox"/> Actual Process Temperature (°F) |
| <input type="checkbox"/> Venting gas emissions | |

12. Associated Gas Venting and Flaring

- | | |
|--|---|
| <input type="checkbox"/> GOR of the hydrocarbon production from each well whose associated natural gas is vented or flared (cubic feet of gas per barrel of oil) | <input type="checkbox"/> Volume of oil produced in the calendar year during which associated gas was vented or flared (barrels) |
| <input type="checkbox"/> Number of wells venting or flaring associated natural gas in calendar year | <input type="checkbox"/> Actual Process Temperature (°F) |
| <input type="checkbox"/> Actual Process Pressure (psia) | <input type="checkbox"/> Flaring gas emissions |

13. Dehydrator Vents

For glycol dehydrator with a throughput greater than or equal to 0.4 million cubic feet per day:

- | | |
|---|--|
| <input type="checkbox"/> Feed natural gas flow rate (million standard cubic feet per day) | <input type="checkbox"/> Feed natural gas water content |
| <input type="checkbox"/> Outlet natural gas water content | <input type="checkbox"/> Absorbent circulation pump type (natural gas pneumatic/air pneumatic/ electric) |
| <input type="checkbox"/> Absorbent circulation rate | <input type="checkbox"/> Absorbent type (TEG/DEG/EG) |
| <input type="checkbox"/> Use of stripping natural gas (Y/N) | <input type="checkbox"/> Use of flash tank separator (Y/N) |
| <input type="checkbox"/> Total time of operation (hours) | <input type="checkbox"/> Wet natural gas temperature (°F) |
| <input type="checkbox"/> Wet natural gas composition | <input type="checkbox"/> Wet natural gas pressure (psig) |
| <input type="checkbox"/> Concentration of CH ₄ in natural gas | <input type="checkbox"/> Concentration of CO ₂ in natural gas |
| <input type="checkbox"/> Vent gas controls used | <input type="checkbox"/> Vent and flared emissions separately (cubic feet) |

For glycol dehydrator with a throughput less than to 0.4 million standard cubic feet per year:

- | | |
|--|---|
| <input type="checkbox"/> Count of glycol dehydrators | <input type="checkbox"/> Vent gas controls used |
| <input type="checkbox"/> Vent emissions (cubic feet) | |

For absorbent desiccant dehydrators:

- | | |
|--|---|
| <input type="checkbox"/> Count of desiccant dehydrators | <input type="checkbox"/> Vent gas controls used |
| <input type="checkbox"/> Time between refilling (days) | <input type="checkbox"/> Pressure of the gas (psia) |
| <input type="checkbox"/> Height of the dehydrator vessel (ft) | <input type="checkbox"/> Inside diameter of the vessel (ft) |
| <input type="checkbox"/> Percent of packed vessel volume that is gas | |

14. EOR Injection Pump Blowdown

-
- | | |
|--|---|
| <input type="checkbox"/> Total volume of blowdown equipment chambers between isolation valves (cubic feet) | <input type="checkbox"/> Number of blowdowns per calendar year |
| <input type="checkbox"/> Density of critical phase EOR injection gas (kg/ft ³) | <input type="checkbox"/> Mass fraction of GHG in critical phase injection gas |
| <input type="checkbox"/> Pump capacity (barrels per day) | |

15. Acid Gas Removal (AGR) Vents

If using Calculation Methodology 1:

- | | |
|---|---|
| <input type="checkbox"/> Total throughput into the AGR unit and/or total throughput out of the AGR unit (cubic feet per year) | <input type="checkbox"/> Volume fraction of CO ₂ content in the vent from the AGR unit |
| <input type="checkbox"/> Emissions recovered and transferred outside the facility | |

If using Calculation Methodology 2:

- | | |
|---|---|
| <input type="checkbox"/> Total throughput out of the AGR unit at actual conditions (cubic feet) | <input type="checkbox"/> Volume fraction of CO ₂ content in vent gas from the AGR unit |
| <input type="checkbox"/> Emissions recovered and transferred outside the facility | |

If using Calculation Methodology 3:

- | | |
|--|--|
| <input type="checkbox"/> Total throughput through the AGR unit at actual conditions (cubic feet) | <input type="checkbox"/> Volume fraction of CO ₂ content in natural gas into the AGR unit |
| <input type="checkbox"/> Volume fraction of CO ₂ content in natural gas out of the AGR unit | <input type="checkbox"/> Actual pressure (psia) |
| <input type="checkbox"/> Actual Temperature (°F) | <input type="checkbox"/> Emissions recovered and transferred outside the facility |

If using Calculation Methodology 4:

- | | |
|---|--|
| <input type="checkbox"/> Natural gas feed temperature | <input type="checkbox"/> Natural gas feed pressure |
|---|--|

- | | |
|--|---|
| <input type="checkbox"/> Natural gas flow rate | <input type="checkbox"/> Acid gas content of feed natural gas |
| <input type="checkbox"/> Unit operating hours, excluding downtime for maintenance or standby | <input type="checkbox"/> Acid gas content of outlet natural gas |
| <input type="checkbox"/> Solvent pressure | <input type="checkbox"/> Exit temperature of natural gas |
| <input type="checkbox"/> Solvent circulation rate | <input type="checkbox"/> Solvent temperature |
| <input type="checkbox"/> Solvent weight | |

16. EOR Hydrocarbon Liquids Dissolved CO₂

- | | |
|--|---|
| <input type="checkbox"/> Volume of crude oil produced annually (barrels) | <input type="checkbox"/> Amount of CO ₂ retained in hydrocarbon liquids at STP conditions (metric tons per barrel) |
|--|---|

17. Centrifugal Compressor Wet Seal Degassing Venting

- Total number of centrifugal compressors

18. Valves

- | | |
|---|---|
| <input type="checkbox"/> Concentration of CH ₄ in produced natural gas | <input type="checkbox"/> Concentration of CO ₂ in produced natural gas |
| <input type="checkbox"/> Report CO ₂ emissions from all valves (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all valves (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

19. Connectors

- | | |
|---|---|
| <input type="checkbox"/> Concentration of CH ₄ in produced natural gas | <input type="checkbox"/> Concentration of CO ₂ in produced natural gas |
| <input type="checkbox"/> Report CO ₂ emissions from all connectors (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all connectors (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

20. Open Ended Lines

- | | |
|---|---|
| <input type="checkbox"/> Concentration of CH ₄ in produced | <input type="checkbox"/> Concentration of CO ₂ in produced natural |
|---|---|

- | | |
|---|---|
| <input type="checkbox"/> natural gas | <input type="checkbox"/> gas |
| <input type="checkbox"/> Report CO ₂ emissions from all open ended lines (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all open ended lines (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

21. Pressure Relief Valves

- | | |
|---|---|
| <input type="checkbox"/> Concentration of CH ₄ in produced natural gas | <input type="checkbox"/> Concentration of CO ₂ in produced natural gas |
| <input type="checkbox"/> Report CO ₂ emissions from all pressure relief valves (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all pressure relief valves (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

22. Pumps

- | | |
|--|--|
| <input type="checkbox"/> Concentration of CH ₄ in produced natural gas | <input type="checkbox"/> Concentration of CO ₂ in produced natural gas |
| <input type="checkbox"/> Report CO ₂ emissions from all pumps (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all pumps (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

23. Flanges

- | | |
|--|--|
| <input type="checkbox"/> Concentration of CH ₄ in produced natural gas | <input type="checkbox"/> Concentration of CO ₂ in produced natural gas |
| <input type="checkbox"/> Report CO ₂ emissions from all flanges (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all flanges (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

24. Instruments

- | | |
|--|--|
| <input type="checkbox"/> Concentration of CH ₄ in produced natural gas | <input type="checkbox"/> Concentration of CO ₂ in produced natural gas |
| <input type="checkbox"/> Report CO ₂ emissions from all instruments (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all instruments (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

25. Loading Arms

- | | |
|---|---|
| <input type="checkbox"/> Concentration of CH ₄ in produced | <input type="checkbox"/> Concentration of CO ₂ in produced natural |
|---|---|

- | | |
|---|---|
| <input type="checkbox"/> natural gas | <input type="checkbox"/> gas |
| <input type="checkbox"/> Report CO ₂ emissions from all loading arms (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all loading arms (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

26. Stuffing Boxes

- | | |
|---|---|
| <input type="checkbox"/> Concentration of CH ₄ in produced natural gas | <input type="checkbox"/> Concentration of CO ₂ in produced natural gas |
| <input type="checkbox"/> Report CO ₂ emissions from all stuffing boxes (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all stuffing boxes (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

27. Compressor Seals

- | | |
|---|---|
| <input type="checkbox"/> Concentration of CH ₄ in produced natural gas | <input type="checkbox"/> Concentration of CO ₂ in produced natural gas |
| <input type="checkbox"/> Report CO ₂ emissions from all compressor seals (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all compressor seals (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

28. Dump Lever Arms

- | | |
|--|--|
| <input type="checkbox"/> Concentration of CH ₄ in produced natural gas | <input type="checkbox"/> Concentration of CO ₂ in produced natural gas |
| <input type="checkbox"/> Report CO ₂ emissions from all dump lever arms (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all dump lever arms (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

29. Breather Caps

- | | |
|--|--|
| <input type="checkbox"/> Concentration of CH ₄ in produced natural gas | <input type="checkbox"/> Concentration of CO ₂ in produced natural gas |
| <input type="checkbox"/> Report CO ₂ emissions from all breather caps (standard cubic feet) | <input type="checkbox"/> Report CH ₄ emissions from all breather caps (standard cubic feet) |
| <input type="checkbox"/> Operating time of leaking component (hours) | <input type="checkbox"/> Total number of components found leaking |

30. Stationary or Portable Fuel Combustion Emissions

-
- | | |
|---|---|
| <input type="checkbox"/> Cumulative number of external fuel combustion units with a rated heat capacity equal to or less than 5 MMBtu/hr, by type of unit | <input type="checkbox"/> Cumulative number of external fuel combustion units with a rated heat capacity larger than 5 MMBtu/hr, by type of unit |
| <input type="checkbox"/> Cumulative emissions from external fuel combustion units with a rated heat capacity larger than 5 MMBtu/hr, by type of unit (cubic feet) | <input type="checkbox"/> Cumulative volume of fuel combusted in external fuel combustion units with a rated heat capacity larger than 5 MMBtu/hr, by fuel type (cubic feet) |
| <input type="checkbox"/> Cumulative number of all internal combustion units, by type of units | <input type="checkbox"/> Cumulative emissions from internal combustion units, by type of unit (cubic feet) |
| <input type="checkbox"/> Cumulative mass/volume of fuel combusted in internal combustion units, by fuel type | <input type="checkbox"/> Concentration of gas hydrocarbon constituents (such as methane, ethane, propane, butane and pentanes plus) |