

Data Dictionary

Sheet: **facility_information**

Description: Part I - General facility information

| Field Name | Description |
|----------------------|--|
| facility_id | 4b. EIA Plant Code as reported on U.S. DOE/EIA Form-860 (2007), schedule 2, line 1, page 37, question 2 OR Plant ID as reported on U.S. DOE/EIA Form EIA-923 (2008), schedule 2, page 1, question 2 |
| utility_code | EIA utility code |
| legal_owner_name | 1. Name of legal owner of facility |
| legal_operator_name | 2. Name of legal operator of facility |
| legal_address_type | 3. Type of address given (legal owner or operator) |
| legal_address | 3. Address of legal owner or operator |
| legal_city | 3. City of legal owner or operator |
| legal_state | 3. State of legal owner or operator |
| legal_zip | 3. Zip code of legal owner or operator |
| plant_name | 4a. Plant Name as reported on U.S. DOE/EIA Form-860 (2007), "Annual Electric Generator Report", schedule 2, line 1, p 37, question 1 OR Plant Name as reported on U.S. DOE/EIA Form EIA-923 (2008), "Power Plant Operations Report", schedule 2, p 1, question 1 |
| physical_address | 5. Street address of facility (physical location) |
| physical_city | 5. City of facility (physical location) |
| physical_state | 5. State of facility (physical location) |
| physical_zip | 5. Zip code of facility (physical location) |
| mailing_address | 6. Mailing address of facility |
| mailing_city | 6. Mailing city of facility |
| mailing_state | 6. Mailing state of facility |
| mailing_zip | 6. Mailing zip code of facility |
| RFA_small_entity | 9. Is this facility considered to be owned or operated by a small entity as defined by the Regulatory Flexibility Act? (Yes, No, Don't know) |
| ff_fired_coal | 10. Facility fires coal in any steam generating unit |
| ff_fired_oil | 10. Facility fires oil in any steam generating unit |
| ff_fired_ngas | 10. Facility fires natural gas in any steam generating unit |
| ff_fired_petcoke | 10. Facility fires pet coke in any steam generating unit |
| ff_fired_other | 10. Facility fires other fossil fuel(s) in any steam generating unit |
| ff_permitted_coal | 11. Facility is permitted to fire coal in any steam generating unit |
| ff_permitted_oil | 11. Facility is permitted to fire oil in any steam generating unit |
| ff_permitted_ngas | 11. Facility is permitted to fire natural gas in any steam generating unit |
| ff_permitted_petcoke | 11. Facility is permitted to fire pet coke in any steam generating unit |
| ff_permitted_other | 11. Facility is permitted to fire other fossil fuel(s) in any steam generating unit |
| deviation_reporting | 9. Type of deviation reporting required for violations of permit requirements (Part II) |
| continuous_emissions | 11. Are continuous emissions data available (e.g., mercury) that are not already being provided to U.S. EPA, even if from short term testing? (Part II) |
| cem_provided | 11. If CEM data are being provided to EPA, please note to which office the data are being provided. (Part II) |
| facility_note | Any miscellaneous notes concerning anything about the facility or anything pertaining to the facility (boiler, units, fuel, test reports, etc.) |

Sheet: **facility_coal_utilized**

Description: Part I - Coal or solid fuel utilized by facility

| Field Name | Description |
|-----------------|---|
| facility_id | Unique facility Id |
| coal_type | 12. Type of coal (lignite, bituminous, subbituminous, anthracite, coal refuse, synfuel, petroleum coke) utilized during the past 12 months |
| percentage_mass | 12. Percentage on a mass basis for coal rank |
| percentage_btu | 12. Percentage on Btu basis for coal rank |
| synfuel_type | 12. Type or form of synfuel used |
| coal_note | 12. If necessary, a notation can be added to a utilized fuel type that is not listed in the operating permit noting the reason the fuel type was combusted. |

Sheet: facility_oil_utilized

Description: Part I - Oil utilized by facility

| Field Name | Description |
|-------------------|--|
| facility_id | Unique facility Id |
| oil_type | 13. Type of oil (distillate, residual or bunker C, other) utilized during the past 12 months |
| percentage_volume | 13. Percentage on a volume basis of oil rank |
| percentage_btu | 13. Percentage on a Btu basis of oil rank |
| other_type | 13. Other specified oil used |

Sheet: facility_other_materials

Description: Part I - Other non-fossil fuel utilized by facility

| Field Name | Description |
|----------------------|---|
| facility_id | Unique facility Id |
| other_material | 14a. Other material utilized or permitted to be used |
| permitted_burn | 14a. Permitted to burn other material |
| actually_burn | 14a. Actually burn other material |
| other_quantity | 14a. Quantity combusted in the boilers |
| other_quantity_units | 14a. Quantity units |
| other_note | 14a. If necessary, a notation can be added to a utilized fuel type that is not listed in the operating permit noting the reason the fuel type was combusted. |
| rcra_utilize | 14b. Would material continue to be utilized if the material were classified as "solid waste" under the Resource Conservation and Recovery Act making the unit subject to CAA section 129? |
| rcra_explain | 14b. Explanation of response to material being utilized if classified as "solid waste" |

Sheet: boiler_information

Description: Part I - General boiler information

| Field Name | Description |
|------------------------------------|--|
| facility_id | Unique facility Id |
| boiler_id | 15. Boiler ID as reported on U.S. DOE/EIA Form EIA-860 (2007), "Annual Electric Generator Report", schedule 6, part A, line 1, page 53 OR on schedule 6, part B, line 1, page 54 OR Generator ID as reported on U.S. DOE/EIA Form EIA-923 (2008), "Power Plant |
| boiler_type | 16. Boiler type (tangential-fired, cyclone, wall-fired, circulating fluidized bed (CFB), etc.) |
| boiler_other | 16. Other boiler type |
| bottom_design | What is the furnace bottom type design? |
| design_fuel | 15. Original design fuel (i.e. coal rank or type of oil) |
| primary_fuel | Primary fuel fired by the boiler (coal, oil, petroleum coke, coal gas, or biomass). This field was added as an aide to help sorting units by their current (12/31/09) primary fuel. Units permitted to fire fuel oil as their primary fuel are listed as "Oil" even if these units are currently firing natural gas as their primary fuel. |
| heat_input | 15. Design heat input per fuel burned in the boiler, MMBtu/hr |
| max_heat_input | 15. Present maximum heat input per fuel burned in the boiler, MMBtu/hr |
| MWe_capacity | 15. MWe gross capacity, summer (mega watts electric output) |
| MWe_net_capacity | 15. MWe net capacity, summer (mega watts electric output) |
| design_gross_efficiency | 15. Original design gross efficiency (% , HHV) |
| operating_gross_efficiency | 15. Present operating gross efficiency (% , HHV) |
| design_gross_thermal_efficiency | This field's data was copied from data entered in the design_gross_efficiency field when it was determined that respondent meant these data to actually be the original design gross thermal efficiency. The data reflecting the original design gross combustion efficiency were left in the design_gross_efficiency field. |
| operating_gross_thermal_efficiency | This field's data was copied from data entered in the operating_gross_efficiency field when it was determined that respondent meant these data to actually be the current operating gross thermal |

efficiency. The data reflecting the current operating gross combustion efficiency were left in the operating_gross_efficiency field.

| | |
|---------------------------|---|
| design_pressure | 15. Design steam pressure (psig) |
| operating_pressure | 15. Operating steam pressure (psig) |
| design_temp | 15. Design steam temperature (deg F) |
| operating_temp | 15. Operating steam temperature (deg F) |
| design_reheat_multiple | 15. More than one design steam reheat cycle is utilized |
| design_reheat_temp1 | 15. First design steam reheat temperature (deg F) |
| design_reheat_temp2 | 15. Second design steam reheat temperature (deg F) |
| operating_reheat_multiple | 15. More than one operating steam reheat cycle is utilized |
| operating_reheat_temp1 | 15. First operating steam reheat temperature (deg F) |
| operating_reheat_temp2 | 15. Second operating steam reheat temperature (deg F) |
| hours_operated | 15. Hours/year operated |
| avg_capacity_factor | 15. Average annual capacity factor for the past 3 years in percent |
| applicable_NSPS | 15. Applicable NSPS (New Source Performance Standards) |
| retirement_year | 15. Estimated year of retirement |
| retirement_year_CBI | 15. If true, then retirement year information is CBI |
| NOx_control | Does this furnace utilize combustion Nitrogen Oxide (NOx) control(s)? |
| SO2_control | Does this furnace utilize pre-combustion Sulfur Dioxide (SO2) control(s)? |
| combustion_additives | Does this furnace utilize any combustion additives to help control criteria pollutants or HAPs? |

Sheet: **boiler_fuels**

Description: Part I - Fuels used by each boiler

| Field Name | Description |
|--------------------|--|
| facility_id | Unique facility Id |
| boiler_id | Unique boiler Id |
| fuel_type | 15. Boiler fuel type |
| fuel_year | 15. Year for fuel |
| percentage_massvol | 15. Percentage on a mass or volume basis |
| percentage_btu | 15. Percentage on Btu basis |
| other_type | 15. Other fuel type |

Sheet: **boiler_control_NOx**

Description: Part I - Boiler combustion NOx controls

| Field Name | Description |
|-------------|---|
| facility_id | Unique facility Id |
| boiler_id | Unique boiler Id |
| NOx_type | What type of combustion Nitrogen Oxide (NOx) control is used? |
| NOx_other | Other NOx type |
| NOx_online | When did this combustion Nitrogen Oxide (NOx) control go online (m/yr)? |

Sheet: **boiler_control_SO2**

Description: Part I - Boiler pre-combustion SO2 controls

| Field Name | Description |
|-------------|---|
| facility_id | Unique facility Id |
| boiler_id | Unique boiler Id |
| SO2_type | What type of pre-combustion sulfur dioxide (SO2) control is used? |
| SO2_other | Other SO2 type |
| SO2_online | When did this pre-combustion method sulfur dioxide (SO2) start being used (m/yr)? |

Sheet: **boiler_additives**

Description: Part I - Boiler pre-combustion SO2 controls

| Field Name | Description |
|-------------|--------------------|
| facility_id | Unique facility Id |

| | |
|-----------------|--|
| boiler_id | Unique boiler Id |
| boiler_additive | What type of combustion additives area being injected/added to this furnace? |
| additive_other | Other additive type |
| additive_online | When did you begin using this additive (m/yr)? |

Sheet: **facility_units**

Description: Part I - Units at facility used for configuration

| Field Name | Description |
|-------------|--------------------|
| facility_id | Unique facility Id |
| unit_id | Unique unit Id |

Sheet: **unit_boilers**

Description: Part I - Boilers assigned to each unit at the facility

| Field Name | Description |
|-------------|--------------------|
| facility_id | Unique facility Id |
| unit_id | Unique unit Id |
| boiler_id | Unique boiler Id |

Sheet: **facility_controls**

Description: Part I - Controls at facility used for configuration

| Field Name | Description |
|-----------------------|--|
| facility_id | Unique facility Id |
| control_id | Unique control Id |
| control_group | General control group (i.e. NOx control, SO2 control, PM control, Other control) |
| control_type | Type of control |
| control_other | Other type of control |
| legacy_control | If true, then this control is not currently in use (removed since 1/1/2004) |
| control_online | When did this control go online (m/yr)? |
| control_offline | When did this control go offline (m/yr)? |
| NOx_reagent | What type of SCR/SNCR Reagent is used in this post-combustion Nitrogen Oxide (NOx) control? |
| reagent_other | Other type of reagent |
| NOx_ammonia | If aqueous ammonia is used during this device's operation, what percentage of ammonia is in this aqueous solution? |
| SO2_sorbent | What type of Sorbent is used in this Flue Gas Desulfurization Device (scrubber)? |
| other_sorbent | Other type of sorbent |
| SO2_scrubber_additive | Does this Flue Gas Desulfurization Device (Scrubber) utilize any type of scrubber additive for non-SO2 control (e.g., to minimize mercury volatilization)? |

Sheet: **facility_sampling_ports**

Description: Part I - Sampling ports at facility used for configuration

| Field Name | Description |
|------------------|-------------------------|
| facility_id | Unique facility Id |
| sampling_port_id | Unique sampling port Id |

Sheet: **facility_stacks**

Description: Part I - Stacks at facility used for configuration

| Field Name | Description |
|----------------|---------------------|
| facility_id | Unique facility Id |
| stack_id | Unique stack Id |
| stack_height | Stack height (ft) |
| stack_diameter | Stack diameter (ft) |

stack_gas_velocity Stack gas velocity (ft/s)

Sheet: **configurations**

Description: Part I - Configurations at this facility

| Field Name | Description |
|------------------|--------------------------------------|
| facility_id | Unique facility Id |
| configuration_id | Unique unit configuration identifier |

Sheet: **configuration_components**

Description: Part I - Components which make up each unit configuration

| Field Name | Description |
|------------------|---|
| facility_id | Unique facility Id |
| configuration_id | Unique configuration Id |
| component_id | Unique component Id |
| order | 16. Order of component in configuration |
| component_type | 16. Type of component in configuration (unit, control, sampling port, stack) |
| port_near | 16. Used for sampling ports, indicates whether it is closer to previous or next component |

Sheet: **configuration_pollutants**

Description: Part I - Configuration emission limits, rates, and monitoring information by pollutant

| Field Name | Description |
|-------------------|--|
| facility_id | Unique facility Id |
| configuration_id | Unique configuration Id |
| pollutant_name | Pollutant name |
| permit_type_1 | 21. Type of permit (first) |
| emlimit_1 | 21. Permitted emission limit (first) |
| emlimit_units_1 | 21. Units for emission limit (first) |
| avg_period_1 | 21. Averaging period for emission limit (1 - 24 hours, or 30 days)- first |
| emlimit_2 | 21. Permitted emission limit (second) |
| emlimit_units_2 | 21. Units for emission limit (second) |
| avg_period_2 | 21. Averaging period for emission limit (1 - 24 hours, or 30 days)- second |
| emlimit_3 | 21. Permitted emission limit (third) |
| emlimit_units_3 | 21. Units for emission limit (third) |
| avg_period_3 | 21. Averaging period for emission limit (1 - 24 hours, or 30 days)- third |
| emlimit_4 | 21. Permitted emission limit (fourth) |
| emlimit_units_4 | 21. Units for emission limit (fourth) |
| avg_period_4 | 21. Averaging period for emission limit (1 - 24 hours, or 30 days)- fourth |
| emlimit_5 | 21. Permitted emission limit (fifth) |
| emlimit_units_5 | 21. Units for emission limit (fifth) |
| avg_period_5 | 21. Averaging Period for emission limit (1 – 23 hours, or 30 days)-fifth |
| emlimit_details | 21. Any details concerning the emission limit |
| test_method | 21. List the method utilized (for PM only) |
| emrate | 22. Most recent guaranteed emission rate |
| emrate_units | 22. Units for emission rate |
| guarantee_level | 23. Was any other guarantee level sought or offered? |
| level_explain | 23. Please elaborate on other guarantee level sought or offered |
| req_monitoring | 24. Required monitoring |
| req_recordkeeping | 24. Required recordkeeping |
| req_reporting | 24. Reporting requirements |

Sheet: **control_technologies**

Description: Part I - General information about each control technology

| Field Name | Description |
|------------------|-------------------------|
| facility_id | Unique facility Id |
| configuration_id | Unique configuration Id |

| | |
|-------------------------|--|
| component_id | Control device directly modified by this project |
| control_id | Unique control technology Id |
| project_title | Project title |
| project_type | 17 & 19. Project type (demonstration or non-demonstration) |
| vendor_name | 17 & 19. Company (prime vendor) name |
| vendor_contact | 17 & 19. Company contact name |
| vendor_phone | 17 & 19. Company contact phone number |
| vendor_address | 17 & 19. Company contact street address |
| vendor_city | 17 & 19. Company contact city |
| vendor_state | 17 & 19. Company contact state |
| vendor_zip | 17 & 19. Company contact zip code |
| actual_start_date | 18 & 20. Actual start-up date |
| projected_start_date | 18 & 20. Projected start-up date |
| end_date | 18. Demonstration activity end date or projected end date |
| sorbent | 18. Sorbent |
| chemical_additive | 18 & 20. Chemical additive |
| injection_point | 18 & 20. Injection point for chemical additive |
| HAP_emission_reduction | 18 & 20. Pollutant emission reduction (%) - desired |
| HAP_emission_rate | 18 & 20. Pollutant emission rate - desired |
| HAP_emission_rate_units | 18 & 20. Units for Pollutant emission rate - desired |
| HAP_achieved_reduction | 18 & 20. Pollutant emission reduction (%) - achieved |
| HAP_achieved_rate | 18 & 20. Pollutant emission rate - achieved |
| HAP_achieved_rate_units | 18 & 20. Units for Pollutant emission rate - achieved |
| feed_rate | 20. Sorbent or additive feed rate |
| feed_rate_units | 20. Units for feed rate |

Sheet: **control_coal_ranks**

Description: Part I - Control technology coal ranks

| Field Name | Description |
|------------------|--|
| facility_id | Unique facility Id |
| configuration_id | Unique configuration Id |
| component_id | Unique component Id |
| control_id | Unique control Id |
| coal_type | 18 & 20. Coal type in use or upon which guarantee is based |

Sheet: **control_pollutants**

Description: Part I - Pollutants controlled by each control technology

| Field Name | Description |
|------------------|--|
| facility_id | Unique facility Id |
| configuration_id | Unique configuration Id |
| component_id | Unique component Id |
| control_id | Unique control Id |
| pollutant_name | Pollutant controlled by control technology |

Sheet: **control_costs**

Description: Part I - Control technology costs

| Field Name | Description |
|--------------------------|--|
| facility_id | Unique facility Id |
| configuration_id | Unique configuration Id |
| component_id | Unique component Id |
| control_id | Unique control Id |
| boiler_retrofit | 25. Was this a retrofit to an existing boiler? |
| boiler_new_install | 25. Was this installed when the boiler was new? |
| total_capital_investment | 25. Total capital investment (\$) |
| total_operating_costs | 25. Total annual operating and maintenance costs (\$) |
| base_year | 25. Base year for operating costs (e.g., 2006) |
| CBI | If box is checked, then the investment and cost information is confidential. |

Sheet: misc_controls

Description: Part I - Other means of emission control

| Field Name | Description |
|---------------------|---|
| facility_id | Unique facility Id |
| misc_control_id | Unique miscellaneous control Id given by the program. Refers to record number. |
| control_description | 26. Any other means of emission control (for any pollutant) employed on any boiler (e.g., low-ash coal, coal or oil with low trace constituents, etc) |

Sheet: misc_control_configurations

Description: Part I - Unit configurations associated with other means of emission control

| Field Name | Description |
|------------------|--|
| facility_id | Unique facility Id |
| misc_control_id | Unique miscellaneous control Id given by the program. Refers to record number. |
| configuration_id | Unique unit configuration identifier |

Table: Hg_cem_daily**Description: Daily Mercury CEMS data**

| Field Name | Description |
|------------------------------|---|
| facility_id | EIA Plant Code |
| stack_id | Stack or sampling port Id |
| collection_date | Collection date |
| collection_end_date | End date for collection (to be used with specific types of cem data only) |
| Hg_total_emissions | Daily Total Mercury (Hg) Emissions (ounces) |
| Hg_total_fluegas | Daily Total Mercury (Hg) Fluegas Concentration |
| Hg_total_fluegas_units | Daily Total Mercury (Hg) Fluegas units of measure |
| Hg_total_emission_factor | Average Daily Total Mercury (Hg) Emission Factor (lb/MMBtu) |
| Hg_elemental_emissions | Daily Elemental Mercury (Hg0) Emissions (ounces) |
| Hg_elemental_fluegas | Daily Elemental Mercury (Hg0) Fluegas Concentration |
| Hg_elemental_fluegas_units | Daily Elemental Mercury (Hg) Fluegas units of measure |
| Hg_elemental_emission_factor | Average Daily Elemental Mercury (Hg0) Emission Factor (lb/MMBtu) |
| Hg_oxidized_emissions | Daily Oxidized Mercury (Hg+2) Emissions (ounces) |
| Hg_oxidized_fluegas | Daily Oxidized Mercury (Hg+2) Fluegas Concentration |
| Hg_oxidized_fluegas_units | Daily Oxidized Mercury (Hg) Fluegas units of measure |
| Hg_oxidized_emission_factor | Average Daily Oxidized Mercury (Hg+2) Emission Factor (lb/MMBtu) |
| Hg_emission_rate | Average Mercury Emission Rate (ounces/hr) |
| fluegas_flowrate | Fluegas Flowrate (scfh) |
| fluegas_temperature | Fluegas Temperature (°F) |
| heat_input | Heat Input (MMBtu/hr) |
| average_load | Average Daily Load (MW Gross) |
| operating_time | Unit or Stack Operating Time (hr) |
| moisture_fraction | Moisture Fraction of the Stack Gas |
| f_factor | F-Factor (Fd, Fw, or Fc=....) |

Table: Hg_cem_hourly**Description: Hourly Mercury CEMS data**

| Field Name | Description |
|-----------------|---------------------------|
| facility_id | EIA Plant Code |
| stack_id | Stack or sampling port Id |
| collection_date | Collection date |
| collection_hour | Collection hour |

| | |
|------------------------------|---|
| Hg_total_emissions | Hourly Total Mercury (Hg) Emissions (ounces) |
| Hg_total_fluegas | Hourly Total Mercury (Hg) Fluegas Concentration |
| Hg_total_fluegas_units | Hourly Total Mercury (Hg) Fluegas units of measure |
| Hg_total_emission_factor | Average Hourly Total Mercury (Hg) Emission Factor (lb/MMBtu) |
| Hg_elemental_emissions | Hourly Elemental Mercury (Hg0) Emissions (ounces) |
| Hg_elemental_fluegas | Hourly Elemental Mercury (Hg0) Fluegas Concentration |
| Hg_elemental_fluegas_units | Hourly Elemental Mercury (Hg) Fluegas units of measure |
| Hg_elemental_emission_factor | Average Hourly Elemental Mercury (Hg0) Emission Factor (lb/MMBtu) |
| Hg_oxidized_emissions | Hourly Oxidized Mercury (Hg+2) Emissions (ounces) |
| Hg_oxidized_fluegas | Hourly Oxidized Mercury (Hg+2) Fluegas Concentration |
| Hg_oxidized_fluegas_units | Hourly Oxidized Mercury (Hg) Fluegas units of measure |
| Hg_oxidized_emission_factor | Average Hourly Oxidized Mercury (Hg+2) Emission Factor (lb/MMBtu) |
| fluegas_flowrate | Fluegas Flowrate (scfh) |
| fluegas_temperature | Fluegas Temperature (°F) |
| heat_input | Heat Input (MMBtu/hr) |
| average_load | Average Load for the Hour (MW Gross) |
| operating_time | Unit or Stack Operating Time (hr) |
| moisture_fraction | Moisture Fraction of the Stack Gas |
| f_factor | F-Factor (Fd, Fw, or Fc=....) |
| operational_status | Operational status at time of sample |
| certified_yn | Indicates Yes/No whether sample was taken while certified for CEM |
| comments | Comments concerning individual CEMS records |

Table: Hg_emission_limits

Description: Mercury CEMS unit identifying information and permit limits if any

| Field Name | Description |
|--------------------|-----------------------------------|
| facility_id | EIA Plant Code |
| stack_id | Stack or sampling port Id |
| Hg_emlimit_1 | Permitted emission limit (first) |
| Hg_emlimit_units_1 | Units for emission limit (first) |
| Hg_emlimit_2 | Permitted emission limit (second) |
| Hg_emlimit_units_2 | Units for emission limit (second) |
| Hg_emlimit_3 | Permitted emission limit (third) |
| Hg_emlimit_units_3 | Units for emission limit (third) |
| Hg_emlimit_4 | Permitted emission limit (fourth) |
| Hg_emlimit_units_4 | Units for emission limit (fourth) |

Sheet: fuel_shipments

Description: Part II - Coal and oil shipments received during the preceding 12 calendar months

| Field Name | Description |
|-----------------|--|
| facility_id | Unique facility Id |
| shipment_id | 2. Unique shipment Id |
| shipment_date | 2. Date of shipment (m/yr) |
| amount_received | 2. Amount received, dry basis, short tons |
| amount_units | 2. Units for amount received |
| fuel_type | 2. Fuel type (coal, oil, or petroleum coke) |
| state_country | 2. State or country from which the fuel originated |
| other_country | 2. Other description for state/country of origin |
| county | 2. County from which the fuel originated |
| coal_seam | 2. Coal seam (if known) from which the coal originated |
| shipment_method | 2. Fuel shipment method |

Sheet: fuel_shipment_configurations

Description: Part II - Configurations firing fuels from shipment

| Field Name | Description |
|-------------|--------------------|
| facility_id | Unique facility Id |

| | |
|------------------|---|
| shipment_id | Unique shipment Id |
| configuration_id | 2. Unique unit configuration identifier |

Sheet: **fuel_shipment_samples**

Description: Part II - Fuel shipment analyses

| Field Name | Description |
|----------------------|---|
| facility_id | Unique facility Id |
| shipment_id | Unique shipment Id |
| sample_id | 3. Unique sample Id |
| amount_fuel | 3. Total amount of fuel represented by sample (tons or gallons) |
| amount_fuel_units | 3. Units of amount of fuel represented by sample (tons or gallons) |
| total_sulfur | 3. Total sulfur (%) |
| ash_content | 3. Ash content (%) |
| heating_value | 3. Heating value (Btu/lb) |
| heating_units | 3. Units of heating value |
| chlorine | 3. Chlorine concentration |
| chlorine_units | 3. Units of chlorine concentration |
| fluorine | 3. Fluorine concentration |
| fluorine_units | 3. Units of fluorine concentration |
| data_provided | 4. Data acquired pursuant to: (permit requirements, contractual obligations, standard operating procedures, or other) |
| data_other_specified | 4. Other specified |
| supplier_type | 5. Analyses supplied by: (fuel supplier or other) |
| supplier_name | 5. Supplier name |
| supplier_address | 5. Supplier street address |
| supplier_city | 5. Supplier city |
| supplier_state | 5. Supplier state or country |
| supplier_zip | 5. Supplier zip code |
| lab_name | 6. Name of laboratory performing analysis |
| lab_address | 6. Laboratory street address |
| lab_city | 6. Laboratory city |
| lab_state | 6. Laboratory state or country |
| lab_zip | 6. Laboratory zip code |
| analysis_copies | 7. Are copies of your analysis included with your ICR submission? |

Sheet: **fuel_sample_pollutants**

Description: Part II - Pollutant concentrations in fuel samples

| Field Name | Description |
|----------------------|---|
| facility_id | Unique facility Id |
| shipment_id | Unique shipment Id |
| sample_id | Unique sample Id |
| fuel_pollutant | 3. Fuel pollutant |
| pollutant_conc | 3. Pollutant concentration |
| pollutant_conc_units | 3. Concentration units |
| pollutant_conc_ND | If true, then pollutant concentration is non-detect |
| pollutant_conc_MDL | Pollutant concentration method detection limit |

Sheet: **test_reports**

Description: Part II - Test reports associated with each facility

| Field Name | Description |
|--------------------|---------------------------------------|
| facility_id | Unique facility Id |
| report_id | 8a. Unique report Id or name |
| report_type | 8b. Type of test report |
| other_type | 8b. Other type of test report |
| report_description | 8a. Description of test report |
| report_begin_date | 8b. Begin date covered by test report |
| report_end_date | 8b. End date covered by test report |

| | |
|-------------------|---|
| before_control | 8c. Does this test report reflect testing before any emission control devices? |
| during_deviation | 8e. Does this test report reflect testing during periods of startup, shutdown, and malfunction? |
| deviation_reports | 10. Is this report for malfunctions or other periods of noncompliance with permit terms and conditions? |

Sheet: **test_report_configurations**

Description: Part II - Unit configuration(s) associated with test report

| Field Name | Description |
|------------------|--|
| facility_id | Unique facility Id |
| report_id | Unique report Id or name |
| configuration_id | 12. Unit configuration id associated with test report (represents the configuration used during the testing) |

Sheet: **test_report_fuels**

Description: Part II - Fuels used during each test report

| Field Name | Description |
|-------------|---|
| facility_id | Unique facility Id |
| report_id | Unique report Id or name |
| fuel_id | Unique fuel Id or name of fuel used during this test report |

Sheet: **test_report_fuel_types**

Description: Part II - Individual fuel types which comprise each fuel used during the test reports

| Field Name | Description |
|--------------------|--|
| facility_id | Unique facility Id |
| report_id | Unique report Id or name |
| fuel_id | Unique fuel Id or name |
| fuel_type | Individual type of fuels which comprise the fuel used during the test report |
| percentage_massvol | Percentage on a mass or volume basis |
| percentage_btu | Percentage on Btu basis |
| other_type | Other fuel type |

Sheet: **test_report_sampling**

Description: Part II - Sampling point information for each test report

| Field Name | Description |
|------------------------|---|
| facility_id | Unique facility Id |
| report_id | Unique report Id or name |
| sampling_port_id | Unique sampling port Id |
| point_differ | 8f. Is there any special placement of the sampling port in reference to the unit configuration that was not represented in the Part I configuration component ordered list? |
| point_description | 8f. If yes above, then describe the special placement of the sampling point |
| before_SO2_device | 8g. Is this sampling point before a post combustion SO2 emission control device (e.g., FGD, SDA, Dry Scrubber)? |
| point_orientation | 8g. orientation of the sampling points in relation to the scrubber and scrubber bypass |
| normal_bypass_percent | 8g. Percentage of bypass under normal operations |
| testing_bypass_percent | 8g. Percentage of bypass during this testing |
| fg_fraction | Description of fraction of Flue gas flow that this sampling port samples (i.e., is the Flue Gas split/manifolded) |

Sheet: **sampling_runs**

Description: Part II - Sample runs for each sampling port and test report

| Field Name | Description |
|----------------------|--|
| facility_id | Unique facility Id |
| report_id | Unique report Id or name |
| sampling_port_id | Unique sampling port Id |
| run_id | Run Id |
| start_datetime | Run start date/time |
| end_datetime | Run end date/time |
| unit_load | Unit load, MW |
| net_generation | Net generation during run, MWh net |
| fg_moisture_content | Flue gas moisture content (%) |
| fg_flow_rate | Flue gas flow rate |
| fg_flow_rate_units | Flue gas flow rate units |
| standard_temperature | Standard temperature (deg F) |
| standard_pressure | Standard pressure (atm) |
| normal_temperature | Normal temperature (deg F) |
| normal_pressure | Normal pressure (atm) |
| fg_oxygen_content | Flue gas oxygen content (dry), % |
| fg_CO2_content | Flue gas carbon dioxide content (dry), % |
| fg_temperature | Flue gas temperature (°F) at sampling port |
| fg_pressure | Flue gas pressure (atm) at sampling port |
| Hg_loi | Loss of ignition for Mercury testing (%) |
| test_method | Test run method |
| run_comments | Test run comment |
| fuel_id | Unique fuel Id or name of fuel used during this sampling run |
| fuel_unit_load | Fuel unit load, MW |
| fuel_flow_rate | Fuel flow rate (dry), lb/hr |
| fuel_ash | Fuel ash (dry), % |
| fuel_heating_value | Fuel heating value (dry), HHV, Btu/lb |
| fuel_sulfur | Fuel sulfur (dry), % |

Sheet: **sampling_run_pollutants1**

Description: Part II - Sample run emissions data by pollutant

| Field Name | Description |
|-----------------------|---|
| facility_id | Unique facility Id |
| report_id | Unique report Id or name |
| sampling_port_id | Unique sampling port Id |
| run_id | Run Id |
| pollutant_name | Pollutant name |
| conc | Concentration |
| conc_units | Concentration units |
| conc_ND | If true, then concentration is non-detect |
| conc_MDL | Concentration method detection limit |
| emission_rate | Emission rate |
| emission_rate_units | Emission rate units |
| emission_rate_ND | If true, then emission rate is non-detect |
| emission_rate_MDL | Emission rate method detection limit |
| emission_factor | Emission factor |
| emission_factor_units | Emission factor units |
| emission_factor_ND | If true, then emission factor is non-detect |
| emission_factor_MDL | Emission factor method detection limit |
| run_pollutant_comment | Run pollutant comment |

Sheet: **sampling_run_fuel**

Description: Part II - Sample run fuel composition by pollutant

| Field Name | Description |
|------------------|----------------------------|
| facility_id | Unique facility Id |
| report_id | Unique report Id or name |
| sampling_port_id | Unique sampling port Id |
| run_id | Run Id |
| fuel_pollutant | Fuel composition pollutant |

| | |
|-----------------|--|
| fuel_conc | Fuel concentration |
| fuel_conc_units | Fuel concentration units |
| fuel_conc_ND | If true, then fuel concentration is non-detect |
| fuel_conc_MDL | Fuel concentration method detection limit |