Illinois Environmental Protection Agency

Stationary Internal Combustion Engine or Turbine Data and Information

Illinois Environmental Protection Agency
Bureau of Air – Permit Section (MC 11)
2520 West Iles Ave
P.O. Box 19276
Springfield, IL 62794-9276

Date Form Received:

General Information

Source Name: _____
Source ID Number: _____
CAAPP Permit Number: _____
Environmental Contact Name: _____
Environmental Contact Email: _____
Environmental Contact Phone Number: _____

Name of Emission Unit: _____
Name of Process: _____
Description of Process: _____
Description of Product/Activity: _____
Flow Diagram Designation of Emission Unit: _____
Manufacturer of Emission Unit (if known): _____
Model Number (if known): _____
Serial Number (if known): _____

Actual or Planned Construction Date (Month/Year): _____
Actual or Planned Operation Date (Month/Year): _____
Actual or Planned Latest Modification Date (Month/Year): _____
Briefly Describe Modification (if applicable):

The Illinois EPA is authorized to require, and you must disclose, the requested information on this form pursuant to the Environmental Protection Act ("Act"), 415 ILCS 5/1 et seq., and its implementing regulations. This information shall be provided using either this form or in an alternative manner at your discretion. Failure to disclose the information may result in an incomplete application and other penalties as provided for in the Act, 415 ILCS 5/42-45. Intentional falsification of the information in this form may result in significant criminal and civil penalties as provided by law.

If the emission unit has more than one mode of operation, explain and identify which mode is covered by this form (note: a separate 270-CAAPP form must be completed for each mode):

Provide the name and designation of all air pollution control equipment controlling this emission unit, if applicable (form 260-CAAPP and the appropriate 260-CAAPP addendum form must be completed for each item of air pollution control equipment):

Provide any limitations on source operation affecting emissions or any work practice standards (e.g., only one unit is operated at a time):

Operating Information

Attach associated calculations and label as Exhibit 270-1.

Operating Hours	Maximum	Typical
Hours Per Day		
Hours Per Week		
Weeks Per Year		

Throughput	Dec-Feb(%)	Mar-May(%)	Jun-Aug(%)	Sep-Nov(%)
Annual Throughput				

Firing Rate Information

Description (check as many as apply):

☐ Internal Combustion Engine
☐ Spark Ignited Engine
☐ Reciprocating Engine
☐ Combined Cycle Turbine
☐ Stationary Turbine
☐ Simple Cycle Turbine
☐ Regenerative Cycle Turbine
☐ Large Bore Engine

Air Charging:

☐ Naturally Aspirated ☐ Blower Scavenged ☐ Turbocharged

No. of cylinders per engine: _____

Rated or design heat input capacity (million Btu/hr): _____

If more than one fuel fired at a time explain:

Fuel(s)	Natural Gas	Fuel Oil	Coal	Other:_____
Single Fuel (max. – million Btu/hr)				
Single Fuel (typical – million Btu/hr)				
Combined Fuel (typical – million Btu/hr)				

Base Load (KW): _____
Time Spent at Base Load (%): _____

Peak Load (KW): _____
Time Spent at Peak Load (%): _____

Other Load (KW): _____
Time Spent at Other Load (%): _____

Natural Gas Firing

Current origin of natural gas:

- ☐ Pipeline (Firm Contract)
- ☐ Pipeline (Interruptible Supply Contract)
- ☐ By-Product, specify origin: _____
- ☐ Other, specify: _____

Typical heat content (Btu/scf): _____

Maximum consumption (scf/month): _____
Maximum consumption (scf/year): _____

Typical consumption (scf/month): _____
Typical consumption (scf/year): _____

Fuel Oil Firing

Oil type (check one):

☐ No. 1 ☐ No. 2
☐ No. 4 ☐ No. 5
☐ No. 6
☐ Other, specify (include generator or supplier): _____

Typical Heat Content (Btu/lb or Btu/gal): _____
Is oil used only as a reserve fuel? ☐ Yes ☐ No

Typical Sulfur Content as Fired (WT%): _____
Typical Ash Content as Fired (WT%): _____

Maximum Consumption (gal/month): _____
Maximum Consumption (gal/year): _____

Typical Consumption (gal/month): _____
Typical Consumption (gal/year): _____

Firing direction:

☐ Horizontal ☐ Tangential
☐ Other, specify: _____

Displacement (liters/cylinder): _____

Other Fuel Firing

Types and suppliers of other fuels:

Name of Other Fuel	Fuel Supplier

Typical Heat Content (specify units): _____
Typical Nitrogen Content as fired (WT%): _____
Typical Sulfur Content as Fired (WT%): _____
Typical Ash Content as Fired (WT%): _____

Maximum consumption (specify units/month): _____
Maximum consumption (specify units/year): _____

Typical Consumption (specify units/month): _____
Typical Consumption (specify units/year): _____

Combustion Control Information

Type of Internal Control Used to Reduce Emissions: _____
Note: A 260-CAAPP form must be completed for external controls

Total Percent Reduction in Emissions:

- ☐ NO_X _____%
- ☐ CO _____%
- ☐ VOM _____%
- ☐ PM_{10} _____%
- ☐ PM _____%
- ☐ SO_2 _____%

Check the Following that Apply:

- ☐ Water injection. Water to Fuel Ratio: _____
- ☐ Flue Gas Recirculation. Percent Recirculated: _____
- ☐ Oxygen Trim Air to Fuel Ratio: _____
- ☐ Reduced Residence Time (seconds): _____
- ☐ Reduced Temperature (ºF): _____
- ☐ Fuel Injection Retard (specify degrees): _____
- ☐ (Non)Selective Catalytic Reduction (260-CAAPP)
- ☐ Other, explain: _____

Maximum Start-Ups in a Year: _____
Time from Start Up to Steady Load (minutes or hours): _____

Applicable Rules

Provide any specific emission standard or limitation, monitoring, testing, recordkeeping, and reporting requirement(s) set by rule(s) which are applicable to this emission unit (e.g., SO_2, Emission Standard, 40 CFR 60 Subpart GG):

Regulated Air Pollutant	Emission Standard, Monitoring, Testing, Recordkeeping, or Reporting	Requirement Citation

If the emission unit qualifies for an exemption from an otherwise applicable rule, then list both the rule from which it is exempt and the rule which allows the exemption. Provide a detailed explanation justifying the exemption. Include detailed supporting data and calculations. Attach and label as Exhibit 270-2, or refer to other attachment(s) which address and justify this exemption.

Compliance Information

If the emission unit is not in compliance with all applicable requirements, then the 294-CAAPP form must be completed and submitted with this application.
Explanation of how initial compliance is to be, or was previously, demonstrated:

Explanation of how ongoing compliance will be demonstrated:

Testing, Monitoring, Recordkeeping, and Reporting

List the parameters that relate to air emissions for which records are being maintained to determine fees, rule applicability or compliance:

Operating Parameter to be monitored (e.g. flow rate)			
Method of measurement			
Unit of measurement			
The monitoring frequency			
Description of the location of each monitor (e.g., in stack monitor 3 feet from exit)			
Verification procedures to confirm the operational status of the monitoring			
Method of Recordkeeping (e.g. data logger, manual readings)			

If each monitor is not operated at all times the equipment is in operation, explain:

Provide information on the most recent tests, if any. If additional space is needed, attach and label as Exhibit 270-3:

Test Date	Test Method	Testing Company	Operating Conditions	Summary of Results

Describe all reporting requirements and provide the title and frequency of report submittals to the Agency:

Emission Information

Provide the controlled emissions (e.g. the emissions that would result after all control and capture efficacies are accounted for).

Name of Regulated Air Pollutant	**Example: Particulate Matter**			
Typical Emission Rate (lbs/hr)	**4.00**			
Maximum Emission Rate (lbs/hr)	**5.00**			
Typical Emission Rate (ton/year)	**14.4**			
Maximum Emission Rate (ton/year)	**21.9**			
Typical Emission Rate Other Terms (ppm, gr/dscf, etc.) _____	**0.24 gr/dscf**			
Maximum Emission Rate Other Terms (ppm, gr/dscf, etc.) _____	**0.3 gr/dscf**			
Applicable Rule	**35 IAC 212.321**			

Hazardous Air Pollutant Emission Information

Provide the controlled HAP emissions (e.g. the emissions that would result after all control and capture efficacies are accounted for).

Name of HAP Emitted	**Example: Benzene**			
Chemical Abstract Service (CAS) Number	**71432**			
Typical Emission Rate (lbs/hr)	**8.0**			
Maximum Emission Rate (lbs/hr)	**10.0**			
Typical Emission Rate (ton/year)	**0.8**			
Maximum Emission Rate (ton/year):	**1.2**			
Typical Emission Rate Other Terms (ppm, gr/dscf, etc.) _____				
Maximum Emission Rate Other Terms (ppm, gr/dscf, etc.) _____				
Applicable Rule	**40 CFR 61.302(b), (d)**			

Exhaust Point Information

This section should not be completed if emissions are exhausted through air pollution control equipment (form 260-CAAPP and the appropriate 260-CAAPP addendum form must be completed for each item of air pollution control equipment).

Flow Diagram Designation of Exhaust Point: _____
Description of exhaust point (stack, vent, indoors, etc.): _____
If the exhaust point discharges indoors, do not complete the remaining items.

Distance to Nearest Plant Boundary from Exhaust Point Discharge (ft): _____
Discharge Height Above Grade (ft): _____
Good Engineering Practice (GEP) Height, If Known (ft): _____
Diameter of Exhaust Point (ft): _____
For a non-circular exhaust point, the diameter is 1.128 times the square root of the area.

Parameter	Maximum	Typical
Exit Gas Flow Rate (acfm)		
Exit Gas Temperature (degree Fahrenheit)		

Direction of exhaust (vertical, lateral, downward): _____

List all emission units and control devices served by this exhaust point:

Name	Flow Diagram Designation

The following information need only be supplied if readily available.
Latitude: _____
Longitude: _____
UTM Zone: _____
UTM Vertical (KM): _____
UTM Horizontal (KM): _____