



FORM EU5: BOILER INFORMATION



Please see instructions on reverse side.

Company Name: _____

BOILER (EMISSION UNIT) DESCRIPTION AND SPECIFICATIONS

1. **Type:** New Boiler Unpermitted Existing Boiler Modification to the Boiler with Construction Permit No.: _____
2. **Emission Unit Name:** _____
3. **Emission Unit (EU) ID:** _____
4. **Emission Point (EP) ID:** _____
5. **Control Equipment (CE):** Yes No If yes, provide CE ID: _____
6. **Maximum Hourly Nameplate Capacity** (mmBTU/hr heat input): _____
7. **Manufacturer:** _____
8. **Model:** _____
9. **Serial Number** (if available): _____
10. **Date Boiler was Manufactured:** _____
11. **Date of On-Site Installation:** _____ 12. **Date of Modification:** _____
13. **Does this boiler have an oxygen trim system to maintain an optimum air-to-fuel ratio?** Yes No

FUEL DESCRIPTION AND SPECIFICATIONS

14. Fuel Type	<input type="checkbox"/> Natural Gas	<input type="checkbox"/> Fuel Oil (# _____)	<input type="checkbox"/> Wood	<input type="checkbox"/> Coal	<input type="checkbox"/> Other Fuels (identify fuel: _____)
15. Full Load Consumption Rate	cf/hr	gal/hr	lb/hr	lb/hr	(units: _____)
16. Sulfur Content	Not Applicable	(units: _____)	Not Applicable	(units: _____)	(units: _____)

17. **For coal boilers only:** What type of coal will be burned? Bituminous Sub-bituminous Lignite
18. **For solid fuel boilers only: include a copy of both the ultimate and proximate fuel analyses.**
Attachments: Ultimate Fuel Analysis Proximate Fuel Analysis

OPERATING LIMITS

19. **Are you requesting operating limits for this boiler?** Yes No If yes, provide the requested limit.
- Operating Hour Limits:** _____ **Quantity of Fuel Burned Limit:** _____
- Fuel Material Content Limits:** _____ **Other:** _____
- Rationale for Requested Limit:** _____

Instructions for Form EU5: Boiler Information

- A EU5 form needs to be completed for EACH boiler submitted in this application.

Exemptions: According to 567 IAC 22.1(2)"a", an indirect-fired combustion source that uses only Natural Gas or LPG and has a heating capacity of less than 10 MMBTU/hr is exempted from needing a construction permit.

According to 567 IAC 22.1(2)"b", an indirect-fired combustion source that uses coal, fuel oil or untreated wood, seeds, pellets, other vegetable matter and has a heating capacity of less than 1 MMBTU/hr is exempted from needing a construction permit. For sources that initiated construction, installation, reconstruction or alteration after October 23, 2013 additional requirements may apply to limit heat input and material throughput in order to qualify for the exemption. Please refer to 567 IAC 22.1(2)"b" for a full explanation of exemption requirements.

Understanding EU5 Form Information: Each number provides an explanation for the corresponding field on the form.

Company Name: This is useful if application pages become separated.

Boiler Description and Specification:

1. **Boiler Type:** Mark the type of boiler needing a permit. Indicate "new" for a boiler that is to be installed at the site, or "unpermitted existing" for a boiler that has already been installed at the site. If the boiler is an existing permitted boiler that is being modified, indicate on the form the most recent construction permit number.
2. **Emission Unit Name:** Provide the name of the emission unit, such as "Boiler 1", "Auxiliary Natural Gas Boiler", etc.
3. **EU ID:** called the emission unit (EU) identifier (ID). Each boiler in the application must have its own identifier. It can be any combination of letters or numbers up to 16 characters in length. The ID should match the ID for this boiler used on previous construction permit applications and within this application. If also submitting an operating permit application, the ID used in this application should be consistent with those used in the operating permit application.
4. **EP ID:** Called the emission point (EP) identification (ID). It can be any combination of letters or numbers up to 16 characters in length. The ID should match the ID for this emission point used on previous construction permit applications and within this application. If also submitting an operating permit application, the ID used in this application should be consistent with those used in the operating permit application.
5. **Control Equipment:** Indicated is the boiler is equipped with any air pollution control equipment. Examples of control equipment include low NO_x burners, flue gas recirculation (FGR), over-fire air (OFA), selective catalytic reduction (SCR). Provide the control equipment ID. Also complete the appropriate CE form. The ID for this equipment should be the same as those used on Form CE and throughout the application.
6. **Maximum Hourly Nameplate Capacity:** Enter the boiler's maximum hourly nameplate capacity (mmBTU/hr heat input). The maximum hourly capacity should be read from the boiler's nameplate or can be obtained from the manufacturer. Please ensure you are providing the boiler heat input and not heat output.
7. **Manufacturer:** Enter the name of the manufacturer of the boiler.
8. **Model:** Enter the model of the boiler.
9. **Serial Number:** Enter the serial number of the boiler if available.
10. **Date Boiler was Manufactured:** This is the date the boiler was built by the manufacturer.
11. **Date of On-Site Installation:** Provide the date when on-site installation of the equipment began or will begin, including the month and year.
12. **Date of Modification:** Provide the month and year of last modification. In the case of proposed modification, provide the best estimate of modification date.

- For the purpose of this form, **Modification** means any physical change or change in method of operation of any existing equipment or control equipment.

13. **Oxygen trim system:** Is the boiler equipped with an oxygen trim system to maintain an optimum fuel-to-air ratio in the boiler? An oxygen trim system is a system of monitors that is used to maintain excess air at the desired level in a combustion device over its operating load range. A typical system consists of a flue gas oxygen and/or carbon monoxide monitor that automatically provides a feedback signal to the combustion air controller or draft controller. This information should be available from the boiler manufacturer.

Fuel Description and Specifications:

14. **Fuel Type:** Indicate the fuel type used by the boiler. If the boiler may burn multiple fuels, please check the appropriate fuel type boxes in this row (e.g. coal and wood). Other fuels would include: propane, digester biogas, landfill gas, biomass, etc.
15. **Full-Load Consumption Rate:** The full-load consumption rate is the fuel consumption rate at the boiler's rated capacity.
16. **Sulfur Content:** Provide the sulfur content in the fuel burned in either ppm or % by weight. It is not necessary to provide the sulfur content of natural gas or wood.
17. **For Coal Boilers Only:** Identify the type of coal to be burned in the boiler. If multiple types will be burned, please check all that apply.
18. **For Solid Fuel Boilers Only:** If you intend to burn a solid fuel in this boiler, provide an ultimate and a proximate analysis representative of the fuel you intend to burn. These analyses can be obtained from the fuel supplier.

Operating Limits

19. **Operating Limits:** If you wish to have permit limits placed on the boiler, mark "Yes." Then, check each type of limit that you would like applied to this emission unit and provide the requested limit. For example, operating hour limits may be in terms of hours per year; fuel material content limits may be in % sulfur in the fuel and quantity of fuel burned limits may be listed as gallons per year. If you are not sure about a requested operating limit, contact the Air Quality Bureau at 1-877-AIR-IOWA.