



OAQ PROCESS INFORMATION APPLICATION
PI-02B: Combustion – Boilers, Process Heaters & Furnaces

State Form 52536 (R2 / 1-10)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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NOTES:

- The purpose of this form is to specify details that pertain only to boilers, process heaters and furnaces.
- For the purposes of this form, a process heater is any combustion unit that provides heat directly or indirectly to the process.
- Complete one PI-02B form for each emissions unit. If there are multiple emission units that are identical in nature, capacity, and use, you may use one PI-02B form to summarize the units.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for anyone to inspect and photocopy.

PART A: Process Unit Details

Part A specifies operating information that is unique to boilers, process heaters and furnaces. Definitions and additional explanation of terminology are included in the instructions for this form.

1. Unit ID:

2. Type of Combustion Unit

- | | | |
|--|---|--|
| <input type="checkbox"/> Boiler: | <input type="checkbox"/> Industrial Boiler | <input type="checkbox"/> Commercial Boiler |
| | <input type="checkbox"/> Institutional Boiler | <input type="checkbox"/> Horseshoe Boiler |
| <input type="checkbox"/> Process Heater: | <input type="checkbox"/> Dutch Oven | <input type="checkbox"/> Drying Oven |
| | <input type="checkbox"/> Fuel Cell | <input type="checkbox"/> Space Heater |
| <input type="checkbox"/> Furnace: | <input type="checkbox"/> Crucible | <input type="checkbox"/> Crucible Pot |
| | <input type="checkbox"/> Cupola | <input type="checkbox"/> Electric Arc |
| | <input type="checkbox"/> Electric Induction | <input type="checkbox"/> Open Hearth |
| | <input type="checkbox"/> Open Hearth, Oxygen Lanced | <input type="checkbox"/> Pot |
| | <input type="checkbox"/> Reverberatory | <input type="checkbox"/> Sweat |

3. Combustion Process

- | | | |
|--|---|--|
| <input type="checkbox"/> Cyclone Burner | <input type="checkbox"/> Fluidized Bed – <i>Circulating</i> | <input type="checkbox"/> Fluidized Bed – <i>Bubbling</i> |
| <input type="checkbox"/> Overfeed Stoker / Traveling Grate | <input type="checkbox"/> Pulverized – <i>Dry Bottom</i> | <input type="checkbox"/> Pulverized – <i>Wet Bottom</i> |
| <input type="checkbox"/> Spreader Stoker | <input type="checkbox"/> Underfeed Stoker | <input type="checkbox"/> Other (<i>specify</i>): _____ |

4. Heat Transfer Method: Watertube Firetube Cast Iron

5. Transfer Surface Arrangement
(check all that apply): Horizontal Straight
 Vertical Bent Tube

6. Firing Configuration: Cyclone Fluidized Bed Combustor Front Wall
 Horizontally Opposed Normal Stoker
 Suspension Tangential

7. Heat Transfer Method
(process heaters only): Direct Indirect

8. Fuel Used: Natural Gas Only Other – *Attach completed PI-02F.*

PART B: Emission Controls and Limitations

Part B identifies control technology, control techniques or other process limitations that impact air emissions.

9. Add-On Control Technology: *Identify all control technologies used for this process. Attach completed CE-01 (unless "none").*

- | | | |
|---|--|-----------------|
| <input type="checkbox"/> None | | |
| <input type="checkbox"/> Baghouse / Fabric Filter – Attach CE-02. | <input type="checkbox"/> Cyclone – Attach CE-03. | |
| <input type="checkbox"/> Electrostatic Precipitator – Attach CE-04. | <input type="checkbox"/> Absorption / Wet Collector / Scrubber – Attach CE-05. | |
| <input type="checkbox"/> NO _x Reduction – Attach CE-09. | <input type="checkbox"/> Other (specify): | – Attach CE-10. |

10. Control Techniques: *Identify all control techniques used for this process.*

- | | | |
|---|--|--|
| <input type="checkbox"/> None (explain): | | |
| <input type="checkbox"/> Ammonia Injection | <input type="checkbox"/> Biased Burner Firing | <input type="checkbox"/> Burning Oil / Water Emulsions |
| <input type="checkbox"/> Burners Out Of Service | <input type="checkbox"/> Duct Injection | <input type="checkbox"/> Flue Gas Recirculation |
| <input type="checkbox"/> Flyash Reinjection | <input type="checkbox"/> Furnace Injection | <input type="checkbox"/> Load Reduction |
| <input type="checkbox"/> Low Excess Air | <input type="checkbox"/> Low NO _x Burners | <input type="checkbox"/> Overfire Air |
| <input type="checkbox"/> Reburn | <input type="checkbox"/> Reduced Air Preheat | <input type="checkbox"/> Spray Drying |
| <input type="checkbox"/> Staged Combustion | <input type="checkbox"/> Other (specify): | – Attach completed GSD-09. |

11. Process Limitations / Additional Information: *Identify any acceptable process limitations. Attach additional information if necessary.*

PART C: Previously Installed Boilers

Part C identifies all boilers that were installed prior to submitting this application.

12. Are there any Previously Installed Boilers present at this source?

- No – Proceed to Part D.
- Yes → Information attached. Information is contained in operating permit:

PART D: Furnace Details

Part D identifies details that pertain only to furnaces. If there are no furnaces identified with this application, completion of this table is not required.

13. Material Melted:

14. Maximum Melt Rate (specify units):

15. Flux Type: _____ MSDS attached.

16. Flux Amount (specify units):

17. Oven Throughput Material: