## Instructions for Attachment E202 FUEL BURNING EQUIPMENT Supplemental Application Form

(Instructions for Completing DEEP-NSR-APP-202)

All applications for a permit to construct and operate a stationary source shall provide the information listed in the Regulations of Connecticut State Agencies (RCSA) section 22a-174-3a(c). This supplemental application form shall be completed for new fuel burning equipment such as: boilers, space heaters, heater/chillers, furnaces, internal combustion engines, emergency engines, generators, fire pumps, turbines, duct burners and any other source that has the capacity to burn fuel for the primary purposes of heat or power generation.

Note: Certain fuel burning equipment may be operated pursuant to RCSA sections 22a-174-3b or -3c in lieu of fulfilling the requirements to obtain a permit to construct and operate pursuant to RCSA section 22a-174-3a. The Regulations are available on the Department web site.

Complete a separate form for *each* fuel burning unit. Complete each item as appropriate. If a specific item does not apply to your situation indicate N/A (not applicable). If additional space is needed to answer a question stated in the application, attach separate sheet(s) as necessary, clearly identifying the applicant name, form name and Part number, and unit number.

Note: The data provided in these forms will be used to define the operating limits in your permit.

Questions? Visit the <u>Air Permitting</u> web page or contact the Air Permitting Engineer of the Day at 860-424-4152 (between 8:30 AM and 4:30 PM, Monday through Friday).

Applicant Name: Provide the applicant name as previously indicated on the *Permit Application* for Stationary Sources of Air Pollution form (DEEP-NSR-APP-200).

Unit Number: Provide the unit number of the subject unit as previously assigned on the *Permit Application for Stationary Sources of Air Pollution* form (DEEP-NSR-APP-200). Please use a consistent reference number for each unit throughout the application package.

#### Part I: General

Type of Unit - Indicate whether the unit is a boiler, heater/furnace, duct burner, internal combustion (IC) engine or turbine. NOTE: If a turbine also has an associated duct burner, a separate form should also be completed for the duct burner.

Manufacturer and Model Number - Provide the manufacturer and model number of the unit. This information can be obtained from the equipment manufacturer.

*Construction Date* - Provide the actual or anticipated construction date of the unit.

Begin actual construction means in general, initiation of physical on-site construction activities on an emissions unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures. With respect to a change in method of operating this term refers to those on-site activities other than preparatory activities which mark the initiation of the change.

Manufacture Date – Provide the date that the unit was manufactured. This information can be obtained from the equipment manufacturer.

Is this unit subject to Title 40 CFR Part 60, NSPS?: Indicate if the unit is subject to Title 40 of the Code of Federal Regulations (CFR) Part 60, New Source Performance Standards (NSPS). If yes, specify the appropriate subpart(s).

Is this unit subject to Title 40 CFR Part 63, MACT?: Indicate if the unit is subject to Title 40 CFR Part 63, National Emissions Standards for Hazardous Air Pollutants (NESHAP). If yes, specify the appropriate subpart(s).

Title 40 CFR Part 60 and Title 40 CFR Part 63 regulations can be found on the <u>U.S. Government Printing Office Website</u>.

Maximum Design Heat Input - Provide the unit's maximum design heat input in MMBTU/hour. This information can be obtained from the equipment manufacturer.

*Typical Heat Input* - Provide the unit's expected typical short-term heat input in MMBTU/hour.

Maximum Operating Schedule - Provide the maximum anticipated operating schedule in hours per day, and hours per year.

Percentage of Annual Use - Provide the unit's percentage of annual use for each category listed, as applicable. Space heating refers to heating of the working environment; process heating refers to supplying heat required by a manufacturing process; and power refers, for example, to generation of electric or rotary energy.

### **Part II: Fuel Information**

Fuel Type - List the fuel(s) to be burned (e.g., No. 2 fuel oil, natural gas, etc.). If more than one, List the primary fuel first.

% Sulfur by weight - Provide each fuel's maximum sulfur content by percent weight on a

dry basis. This information can be obtained from the fuel dealer.

Higher Heating Value - Provide each fuel's higher heating value in BTU. This information can be obtained from the fuel dealer.

Maximum Hourly Firing Rate - Provide the maximum hourly firing rate for each fuel. This information can be obtained from the equipment manufacturer.

Maximum Annual Fuel Usage - Provide the maximum anticipated annual fuel usage for each fuel.

*Units* - Provide the unit of measure used for the subject fuel, gallons or cubic feet.

Note: Parts III and IV are unit specific. Complete only that section which applies to the subject unit.

## Part III: External Combustion Unit Information (Boiler or Heater/Furnace)

Burner Manufacturer and Model Number -Provide the manufacturer and model number of the burner. This information can be obtained from the equipment manufacturer.

*Number of Burners* –Provide the number of burners associated with the subject unit. This information can be obtained from the equipment manufacturer.

Burner Maximum Rated Capacity - Provide each burner's maximum design heat input in MMBTU/hour. This information can be obtained from the equipment manufacturer.

Firing Type and Method Information

Indicate firing type of the unit and then the method as directed below. Choose all that apply.

Oil/Gas Fired Unit - Indicate the firing method used for an oil or gas fired unit. This information can be obtained from the equipment manufacturer. If other, specify type.

Pulverized Coal Fired Unit - Indicate the firing method used for a pulverized coal fired unit. This information can be obtained from the equipment manufacturer. If other, specify type.

Coal/Wood Fired Stoker Unit - Indicate the firing method used for a coal/wood fired unit. This information can be obtained from the equipment manufacturer. If other, specify type.

Coal/Wood Fired Fluidized Bed Combustor - Indicate the firing method used for a coal/wood fired fluidized bed combustor unit. This information can be obtained from the equipment manufacturer. If other, specify type.

Other Coal/Wood Fired Unit - Indicate the firing method used for other coal/wood fired unit. This information can be obtained from the equipment manufacturer. If other, specify type.

## **Part IV: Internal Combustion (IC) Unit Information (IC Engine or Turbine)**

IC Engine Information

IC Engine Operation - Indicate whether the IC engine will be operated for emergency use only or emergency and non-emergency use. *Emergency* is specifically defined in RCSA section 22a-174-22(a).

*IC Engine Ignition* - Indicate the IC engine ignition type. This information can be obtained from the equipment manufacturer.

*IC Engine Type* – Indicate the engine type. This information can be obtained from the equipment manufacturer.

*IC Engine Brake Horsepower* - Provide the maximum design brake horsepower of the IC engine. This information can be obtained from the equipment manufacturer.

*IC Engine Power Output* - Enter the output of the IC engine in megawatts. This information can be obtained from the equipment manufacturer.

#### Turbine Information

Turbine Operation - Indicate whether the turbine will be operated for emergency use only or emergency and non-emergency use. *Emergency* is specifically defined in RCSA section 22a-174-22(a).

*Turbine Type* - Indicate the turbine type. This information can be obtained from the equipment manufacturer.

*Power Output* - Enter the output of the turbine in megawatts. This information can be obtained from the equipment manufacturer.

#### Part V: Combustion Controls Information

Type of Combustion Control - Indicate the type of combustion control(s) or modification(s) used to reduce emissions. If combustion controls other than those listed will be used, specify the type. If none, indicate none.

#### Part VI: Attachments

This section offers a checklist of all the attachments necessary to complete this application. Not all attachments may be applicable to the application. Where the checklist states "**IF APPLICABLE**", your particular situation will determine if the attachment is required.

Check the appropriate box by each attachment being submitted as verification that all applicable attachments have been submitted. Please label all attachments as referenced in the permit application form and these instructions and be sure to include the name of the applicant as indicated on the application form.

# Attachment E202-A: Process Information and Flow Diagram, REQUIRED

Submit a process flow diagram indicating all related equipment, air pollution control equipment and stacks, as applicable. Identify all materials entering and leaving each such device

indicating quantities and parameters relevant to the proper operation of the device. Indicate all monitoring devices and controls.

# **Attachment E202-B: Manufacturer Information, REQUIRED**

Submit copies of the manufacturer specification sheets for the unit, the air pollution control equipment and the monitoring systems.

# **Attachment E202-C: Turbine Emissions Profiles, IF APPLICABLE**

Submit copies of manufacturer's emissions profile data for steady state and transient operation of the turbine.