

Attachment E210: Air Pollution Control Equipment Supplemental Application Form

Applicant Name: _____
Unit No(s).: _____

DEEP USE ONLY
App. No.: _____

Complete this form in accordance with the instructions (DEEP-NSR-INST-210) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete this supplemental application form to provide the air pollution control equipment information for all units that are part of this application package.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at DEEP.BAM.AirPermits@ct.gov or 860-424-4152.

Part I. Summary Sheet

Unit No.	Unit Description	Control Equipment		Overall Control Efficiency (%)	Pollutant(s) Controlled	*Basis	Stack No.
		No.	Type				

* Submit supporting documentation with this form, e.g., stack test data, manufacturer's guarantees, etc. as Attachment E210(Control Equipment No.).

Check here if additional sheets are necessary, and label and attach them to this sheet.

Part II: Specific Control Equipment

Complete the appropriate subsection for each *distinct* piece of control equipment.

1. Adsorption Device

Control Equipment Number of Adsorption Unit: _____

Unit Number of Unit which Uses Adsorption Unit: _____

Manufacturer and Model Number			
Construction Date			
Adsorbent		<input type="checkbox"/> Activated Charcoal <input type="checkbox"/> Other (specify):	Type: <input type="checkbox"/> Granulated <input type="checkbox"/> Powdered
Number of Beds			
Dimensions of Beds <input type="checkbox"/> Check here if additional sheets are necessary, and label and attach them to this sheet.	Bed No. 1	Thickness in direction of gas flow: inches Cross-section area: square inches	
	Bed No. 2	Thickness in direction of gas flow: inches Cross-section area: square inches	
	Bed No. 3	Thickness in direction of gas flow: inches Cross-section area: square inches	
Inlet Gas Temperature		°F	
Design Pressure Drop Across Unit		inches H ₂ O	
Operating Pressure Drop Range Across Unit		-	inches H ₂ O
Gas Flow Rate		scfm	
Type of Regeneration		<input type="checkbox"/> Replacement <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Steam
Method of Regeneration		<input type="checkbox"/> Alternate use of beds <input type="checkbox"/> Other (specify):	<input type="checkbox"/> Source shut down
		Describe procedures used to ensure that emissions from regeneration process are treated or minimized:	
Maximum Operation Time Before Regeneration			
Is Adsorber Equipped with a Break-Through Detector?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Pollutant(s) Controlled			
Collection Efficiency(s) of Adsorber		%	
Control Efficiency(s) of Adsorber		%	
Overall Control Efficiency(s)		%	

2. Afterburner (Incinerator for Air Pollution Control)

Control Equipment Number of Afterburner: _____

Unit Number of Unit which Uses Afterburner: _____

Manufacturer and Model Number					
Construction Date					
Type of Afterburner		<input type="checkbox"/> Thermal <input type="checkbox"/> Catalytic <input type="checkbox"/> Other (specify): _____			
Combustion Chamber Dimensions	Length	inches square inches			
	Cross-section area				
Inlet Gas Temperature		°F			
Operating Temperature Range of Chamber		- °F			
Auxiliary Fuel Information					
Fuel Type	% Sulfur by Weight	Higher Heating Value (BTU)	Maximum Hourly Firing Rate	Maximum Annual Fuel Usage	Units (gal or ft³)
Number of Burners					
Burner Maximum Heat Input	Burner No. 1		BTU per hour		
	Burner No. 2		BTU per hour		
	Burner No. 3		BTU per hour		
Catalyst Used		<input type="checkbox"/> Yes <input type="checkbox"/> No			
Catalyst Type					
Catalyst Sampling Interval					
Heat Exchanger Used		<input type="checkbox"/> Yes <input type="checkbox"/> No			
Type of Heat Exchanger					
Heat Recovery					
Reagent Used					
Gas Flow Rate		scfm			
Combustion Chamber Design Residence Time		seconds			
Moisture Content of Exhaust Gas		%			
Heat Recovery		%			
Pollutant(s) Controlled					
Collection Efficiency(s) of Afterburner		%			

2. Afterburner (Incinerator for Air Pollution Control) (continued)

Control Equipment Number of Afterburner: _____

Unit Number of Unit which Uses Afterburner: _____

Control Efficiency(s) of Afterburner	%
Overall Control Efficiency(s)	%

3. Condenser

Control Equipment Number of Condenser: _____

Unit Number of Unit which Uses Condenser: _____

Manufacturer and Model Number	
Construction Date	
Heat Exchange Area	square feet
Coolant Flow Rate	<input type="checkbox"/> Water: gpm <input type="checkbox"/> Air: scfm <input type="checkbox"/> Other (specify): _____
Gas Flow Rate	scfm
Coolant Temperature	In: °F Out: °F
Gas Temperature	In: °F Out: °F
Pollutant(s) Controlled	
Collection Efficiency(s) of Condenser	%
Control Efficiency(s) of Condenser	%
Overall Control Efficiency(s)	%

4. Electrostatic Precipitator

Control Equipment Number of Electrostatic Precipitator: _____

Unit Number of Unit which Uses Electrostatic Precipitator: _____

Manufacturer and Model Number			
Construction Date			
Collecting Electrode Area	square feet		
Gas Flow Rate	scfm		
Voltage Across the Precipitator Plates	kV		
Resistivity of Pollutants	ohms		
Number of Fields in the Precipitator			
Grain Loading	In:	grains/scf	Out: grains/scf
Pollutant(s) Controlled			
Collection Efficiency(s) of Electrostatic Precipitator	%		
Control Efficiency(s) of Electrostatic Precipitator	%		
Overall Control Efficiency(s)	%		

5. Filter

Control Equipment Number of Filter: _____

Unit Number of Unit which Uses Filter: _____

Manufacturer and Model Number				
Construction Date				
Filtering Material				
Air to Cloth Ratio	square feet			
Net Cloth Area	square feet			
Number of Bags				
Cleaning Method	<input type="checkbox"/> Shaker <input type="checkbox"/> Reverse Air <input type="checkbox"/> Pulse Air <input type="checkbox"/> Pulse Jet <input type="checkbox"/> Other (specify): _____			
Gas Cooling Method	<input type="checkbox"/> Ductwork Length: _____ ft. Diameter: _____ in. <input type="checkbox"/> Heat Exchanger <input type="checkbox"/> Bleed-in Air <input type="checkbox"/> Water Spray <input type="checkbox"/> Other (specify): _____ <input type="checkbox"/> Not Applicable			
Cooling Medium Flow Rate	<input type="checkbox"/> Bleed-in Air: _____ scfm <input type="checkbox"/> Water Spray: _____ gpm			
Exhaust Gas Flow Rate	scfm			
Inlet Gas Temperature	°F			
Inlet Gas Dew Point	°F			
Grain Loading	In:	grains/scf	Out:	grains/scf
Design Pressure Drop Across Unit	inches H ₂ O			
Operating Pressure Drop Range Across Unit	-	inches H ₂ O		
Pollutant(s) Controlled				
Collection Efficiency(s) of Filter	%			
Control Efficiency(s) of Filter	%			
Overall Control Efficiency(s)	%			

6. Cyclone

Control Equipment Number of Cyclone: _____

Unit Number of Unit which Uses Cyclone: _____

Manufacturer and Model Number					
Construction Date					
Type of Cyclone	<input type="checkbox"/> Single <input type="checkbox"/> Multiple: Number of Cyclones				
Gas Flow Rate	scfm				
Grain Loading	In: grains/scf	Out:	grains/scf		
Design Pressure Drop Across Unit	inches H ₂ O				
Operating Pressure Drop Range Across Unit	-	inches H ₂ O			
Pollutant(s) Controlled					
Collection Efficiency(s) of Cyclone	%				
Control Efficiency(s) of Cyclone	%				
Overall Control Efficiency(s)	%				

7. Mist Eliminator

Control Equipment Number of Mist Eliminator: _____

Unit Number of Unit which Uses Mist Eliminator: _____

Manufacturer and Model Number					
Construction Date					
Face Velocity	feet per second <input type="checkbox"/> Vertical Flow <input type="checkbox"/> Horizontal Flow <input type="checkbox"/> Diagonal				
Design Pressure Drop Across Unit	inches H ₂ O				
Operating Pressure Drop Range Across Unit	-	inches H ₂ O			
Flow Rate	scfm				
Pollutant(s) Controlled					
Collection Efficiency(s) of Mist Eliminator	%				
Control Efficiencies of Mist Eliminator	% @ 1 mmHg % @ 5 mmHg % @ 10 mmHg				
Overall Control Efficiency(s)	%				

8. Scrubber

Control Equipment Number of Scrubber: _____

Unit Number of Unit which Uses Scrubber: _____

Manufacturer and Model Number			
Construction Date			
Type of Scrubber		<input type="checkbox"/> Venturi	
		<input type="checkbox"/> Wet Fan	
		<input type="checkbox"/> Packed: Packing Material Size:	
		Packed Height: inches	
		<input type="checkbox"/> Spray: Number of Nozzles:	
		Nozzle No. 1 Pressure: psig	
Nozzle No. 2 Pressure: psig			
Nozzle No. 3 Pressure: psig			
Nozzle No. 4 Pressure: psig			
<input type="checkbox"/> Other (specify):			
Design Pressure Drop Across Unit		inches H ₂ O	
Operating Pressure Drop Range Across Unit		- inches H ₂ O	
Type of Flow		<input type="checkbox"/> Concurrent <input type="checkbox"/> Countercurrent <input type="checkbox"/> Crossflow	
Scrubber Geometry	Length in direction of gas flow	feet	
	Cross-sectional area	square inches	
Chemical Composition of Scrubbing Liquid			
Scrubbing Liquid/Reagent Flow Rate		gpm	
Fresh Liquid Make-Up Rate		gpm	
Scrubber Liquid/Reagent Circulation		<input type="checkbox"/> One Pass <input type="checkbox"/> Recirculated	
Scrubber Liquid/Reagent pH			
Gas Flow Rate		scfm	
Inlet Gas Temperature		°F	
Design Outlet Grain Loading		gr/dscf	
Pollutant(s) Controlled			
Collection Efficiency(s) of Scrubber		%	
Control Efficiency(s) of Scrubber		%	
Overall Control Efficiency(s)		%	

9. Other Control Equipment for Degreasing Equipment

Name of Control Equipment: _____

Control Equipment Number of Control Equipment: _____

Unit Number of Unit which Uses Control Equipment: _____

Manufacturer and Model Number	
Construction Date	
Method of Control	<input type="checkbox"/> Refrigerator Chiller <input type="checkbox"/> Water Spray <input type="checkbox"/> Other (specify): _____
Pollutant(s) Controlled	
Collection Efficiency(s) of Control Equipment	%
Control Efficiency(s) of Control Equipment	%
Overall Control Efficiency(s)	%

10. Other Type of Control Equipment

Name of Control Equipment: _____

Control Equipment Number of Control Equipment: _____

Unit Number of Unit which Uses Control Equipment: _____

Manufacturer and Model Number	
Construction Date	
Pollutant(s) Controlled	
Collection Efficiency(s) of Control Equipment	%
Control Efficiency(s) of Control Equipment	%
Overall Control Efficiency(s)	%

Part III: Attachments

Please check the attachment being submitted as verification that all applicable attachments have been submitted with this application form. When submitting such documents, please label the documents as indicated in this Part (e.g., Attachment E210(Control Equipment No.), etc.) and be sure to include the applicant's name.

Attachment E210: *Manufacturer Information* - Submit supporting documentation for each piece of air pollution control equipment listed in Part I of this form, e.g., stack test data, manufacturer's guarantees, etc. Label each document in this Attachment referencing the applicable air pollution control equipment number as indicated in Part I of this form using this format: Attachment E210(Control Equipment No.). **REQUIRED**