



Massachusetts Department of Environmental Protection

Bureau of Air and Waste – Air Quality

BAW AQ Condenser Equipment

Submit with Form CPA-PROCESS whenever construction, substantial reconstruction or alteration of Condenser Equipment is proposed unless exempt per 310 CMR 7.02(2)(b).

Facility ID (if known) _____

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Gas Stream Operating Conditions

1. Complete the tables below with information on gas flow(s).

Table 1a							
Emission Unit No(s). Being Controlled	Average Inlet Gas Flow (Actual Cubic Feet Per Minute)	Inlet Moisture Content (Percentage)	Inlet Temperature (Degrees Fahrenheit (°F))	Temperature (Degrees Fahrenheit (°F))		Pressure (inches of water)	
				Inlet	Outlet	Inlet	Outlet

Table 1b					
Emission Unit No(s). Being Controlled	Air Contaminant		Condensate Temperature (°F)	Air Contaminant Generation Range Before Control (Pounds Per Hour)	Air Contaminant Concentration Before Control (Parts Per Million by Volume, Dry Basis)
	Name	Vapor Pressure (Pounds per square inch)			
Total Before Control:					

2. Provide the capture efficiency of the ventilation system serving the Condenser Equipment. The presumption is that the capture efficiency of the system meets the criteria of the Permanent Total Enclosure (PTE) detailed in EPA Method 204.

Weight Percent (%) _____

3. If the proposed system does not meet the PTE criteria, explain:



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4. Describe any pollution control device inlet and outlet gas conditioning process (for example gas cooling, gas re-heating, gas humidification):

B. Specifications

1. Manufacturer of Condenser Equipment:

Company _____

2. Model Number (or Equivalent):

Number _____

3. Coolant:

Name _____

4. Coolant Specific Heat:

Btu/lb at 77°F _____

5. Coolant Flow Rate:

Specify Units _____

6. Condenser Surface Area:

Square inches _____

7. Coolant Inlet Temperature:

°F _____

8. Coolant Outlet Temperature:

°F _____

C. Description of Condenser Equipment

1. Describe in detail how the condensates are handled:

2. Other:



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D. Emissions Data

1. Describe air contaminant emissions after control by the proposed Condenser Equipment.

Table 2			
Air Contaminant	Air Contaminant Removal Efficiency (Weight Percent)	Air Contaminant Emission Rate After Control (Pounds Per Hour)	Air Contaminant Emission Rate After Control (Parts Per Million by Volume, Dry Basis)

2. Explain how the above air contaminant emissions data were obtained. Attach appropriate calculations and documentation.

E. Drawing of Condenser Equipment Control System

You must attach to this form a schematic drawing of the proposed Condenser Equipment and any pre-cleaner. The downstream design should be indicated on the drawing. At a minimum, the stack, sampling ports for emissions testing, and location of each pressure and temperature indicator must be shown.

F. Monitoring, Record Keeping & Failure Notification

1. Describe the parameters that will be monitored as a surrogate for control device efficiency, and the frequency of monitoring. Continue on a separate attachment, if necessary.
2. Describe the monitoring methods and warning/alarm system that protect against operation when the unit is not meeting design efficiency (e.g. visual monitoring, audible alarm, flashing lights, temperature indicator, pressure indicator). Continue on a separate attachment, if necessary.



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3. Describe the record keeping procedures to be used to verify monitoring and to identify the cause, duration and resolution of each failure. Continue on a separate attachment, if necessary.

4. Describe how failure of the Condenser Equipment will be made known to the operator during normal operations (e.g. visual monitoring, audible alarm, flashing lights, time indicator, pressure indicator). Continue on a separate attachment, if necessary.

5. List and explain all operating and safety controls associated with this system, including interlock systems that prevent introduction of the air contaminant(s) stream until the Condenser Equipment is operating properly. Continue on a separate attachment, if necessary.

6. Describe the Condenser Equipment's emergency procedures during system upsets. Continue on a separate attachment, if necessary.

7. Describe features of the system design and operation that will allow for emissions testing using MassDEP-sanctioned test methods. Continue on a separate attachment, if necessary.

G. Standard Operating & Maintenance Procedures

Attach to this form the standard operating and maintenance procedures for the proposed Condenser Equipment, as well as a list of the spare parts inventory that you will maintain on site, as recommended by the equipment vendor(s).