

**AIR POLLUTION CONTROL EQUIPMENT DATA
WET SCRUBBING DEVICE**

FORM E103
01/2001

1. **Name of Company:** _____
As shown on Line 1 of Form E001

2. **Equipment Name:** _____
As shown on Line 9 of Form E001

3. **Equipment Data:**

Manufacturer of Wet Scrubber: _____

Model Number: _____ Cost of Wet Scrubber: _____

Date of Manufacture: _____ Date of Installation: _____

Pre-cleaning Equipment: No Yes _____
If yes, what type (File appropriate form for control equipment)

Volume of gas discharged from wet scrubber at dry standard conditions: _____ dscfm

4. **Pressure Drop Across Wet Scrubber:**

Stated by the manufacturer: _____ Inches of H₂O

Measured (Actual): _____ Inches of H₂O

5. **Inlet Properties:**

Inlet Gas Temperature: _____ °F	Inlet Area _____ Ft ²
Inlet Gas Pressure: _____ Inches of H ₂ O	Gas Viscosity: _____ Lbs/ft-sec.
Inlet Gas Velocity: _____ Ft/sec.	Moisture in Gas Stream: _____ %
Inlet Gas Density: _____ Lbs/ft ³	Dew Point of Gas Stream: _____ °F

6. **Wet Scrubber Components:**

<input type="checkbox"/> Flow Rate Instrumentation	<input type="checkbox"/> Inlet Gas Temperature Instrumentation	<input type="checkbox"/> Heat Exchanger
<input type="checkbox"/> Transmissometer	<input type="checkbox"/> Differential Pressure Instrumentation	<input type="checkbox"/> Gas Preheater

7. **Wet Scrubber Type:**

<input type="checkbox"/> Spray Chamber	<input type="checkbox"/> Mechanical Scrubber	<input type="checkbox"/> Venturi Scrubber
<input type="checkbox"/> Packed Tower	<input type="checkbox"/> Centrifugal Scrubber	<input type="checkbox"/> Cyclonic Scrubber
<input type="checkbox"/> Variable Pressure Drop Orifice Scrubber	<input type="checkbox"/> Orifice Type Scrubber	
<input type="checkbox"/> Wet Impingement Collector	<input type="checkbox"/> Wet Filter	

8. **Wet Scrubber Operation:**

Continuous Intermittent

9. **Description of Scrubber:**

Volume of Scrubber: _____ Ft³ Construction Material: _____

Shape of Scrubber: Rectangular Cylindrical Other (Describe): _____

Dimensions of Scrubber: Length: _____ Ft Width: _____ Ft Height: _____ Ft

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10. **Scrubbing Media Data:**
 Water Chemical Agent (Specify): _____

Purpose for Chemical Agent: Surface Reactant Neutralizing Agent Wetting Agent
 Other (Specify): _____

Liquid Consumption Rate: _____ Gallons per 1000 cfm of gas Liquid Inlet Pressure: _____ Psi

Inlet Liquid Temperature: _____ °F Maximum _____ °F Minimum

11. **Technical Data:** *(Answer only the questions applicable to your equipment.)*

Direction of Spray (to gas flow): Normal Parallel Tangential

Type of Spray Nozzle: Hollow Cone Full/Solid Cone Atomizing

Describe Impingement Plates: _____

Number of Impingement Plates: _____ Number of Holes per Impingement Plate: _____

Area of Each Impingement Plate: _____ Ave. Area of Each Opening through Plate: _____

Type of Packing (Describe): _____

Type of Mist Eliminator (Describe): _____

12. **Particle Size Distribution in Microns (μ):**

Particle Type(s): _____

Size	0-5 μ	5-10 μ	10-20 μ	20-44 μ	Greater than 44 μ
Give % by Weight					

13. **Sludge Disposal Method:**
 Automatic Manual Other (Describe): _____

How often are hoppers emptied? Every _____ Hours

Is a water clarification and recycling system used with this equipment? Yes No

Site of sludge disposal: _____

14. **Particulate Control Efficiency:**

Manufacturer's stated efficiency: _____ % Required Efficiency: _____ %

Operation Efficiency (Performance Testing): _____ %

Size	0-5 μ	5-10 μ	10-20 μ	20-44 μ	Greater than 44 μ
Give % by Weight					

15.

Fan Data:	
Fan Location: <input type="checkbox"/> Clean air side (pull through) <input type="checkbox"/> Dirty air side (push through)	
Fan Design (Check one – A, B, or C):	
<u>Fan Type:</u>	<u>Blade Type:</u>
A. <input type="checkbox"/> Centrifugal (radial flow)	<input type="checkbox"/> Forward Curve <input type="checkbox"/> Backward Curve <input type="checkbox"/> Straight
B. <input type="checkbox"/> Axial-flow (propeller)	<input type="checkbox"/> Propeller <input type="checkbox"/> Tube Axial <input type="checkbox"/> Vane Axial
Fan Properties:	
Diameter: _____ Inches	Braking Horsepower: _____ BHP
Speed: _____ RPM	Inlet Area: _____ Ft ²
Volume: _____ CFM @ STP	Outlet Area: _____ Ft ²
Static Pressure: _____ Inches WC	Motor Horsepower: _____ HP
<input type="checkbox"/> Standard <input type="checkbox"/> Heavy Duty	Submitted copy of Manufacturer's Multirating Tables <input type="checkbox"/> Yes <input type="checkbox"/> No
Special Construction Materials:	
<input type="checkbox"/> Bronze Alloys <input type="checkbox"/> Aluminum <input type="checkbox"/> Stainless Steel <input type="checkbox"/> Bisonite	
<input type="checkbox"/> Zinc Chromate Primer <input type="checkbox"/> Rubber, Phenolics, Vinyls, or Epoxy Coverings	
C. <input type="checkbox"/> Compressor	<input type="checkbox"/> Positive Displacement <input type="checkbox"/> Dynamic <input type="checkbox"/> Reciprocating

*This is to certify that I am familiar with the operations concerning this equipment and that the information provided on this application is true and complete to the best of my knowledge. **This form must be completely filled out before it will be processed.***

Mail to:
 CHATTANOOGA-HAMILTON COUNTY AIR
 POLLUTION CONTROL BUREAU
 2034 Hamilton Place Blvd. Suite 300
 Chattanooga, TN 37416

Company Official: _____

Title: _____

Date: _____

Do not write below this line.

_____ Engineer Approval Permit Number: _____

Special Notations: _____
