

SEE INSTRUCTIONS ON REVERSE SIDE

Section A

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|---------------------------------|------------------------------------|
| 1. Facility name: | 2. Facility identification number: |
| 3. Stack identification number: | 4. Unit identification number: |
| 5. Control device number: | |

6. Manufacturer and model number: _____

7. Date of installation: _____

8. Describe in detail the control system. Attach a blueprint or diagram of the system. Attached? _____

9. List the pollutants to be controlled by this equipment and the expected control efficiency for each pollutant on the table below.

Documentation is attached

| Pollutant | Inlet pollutant concentration | | Outlet pollutant concentration | | Efficiency (%) |
|-----------|-------------------------------|------|--------------------------------|------|----------------|
| | gr/acf | ppmv | gr/acf | ppmv | |
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10. Discuss how the collected material will be handled for reuse or disposal.

11. List the important design parameters of this device and their normal operating range (e.g., primary/secondary voltage and current, spark rate of each field).

12. Prepare a malfunction prevention and abatement plan (if required under s. NR 439.11) for this pollution control system. Please include the following:
- a. Identification of the individuals(s), by title, responsible for inspecting, maintaining and repairing this device.
 - b. Operation variables that will be monitored in order to detect a malfunction or breakthrough, the correct operating range of these variables, and a detailed description of monitoring or surveillance procedures that will be used to show compliance.
 - c. Cleaning method (mechanical rapping, magnetic impulse rappers, water sprays, etc.).
 - d. An inspection schedule and items or conditions that will be inspected.
 - e. A listing of materials and spare parts that will be maintained in inventory.
 - f. Is this plan available for review?

Section B

The following questions must be answered by sources installing new equipment or existing Units which cannot document control efficiency of this device by other means.

| | |
|--|---|
| 13. Length, width and height of fields or tube diameter and length (ft): | 14. Design particle migration velocity (ft/sec): |
| 15. Collection area (ft ²): | 16. Number of fields: |
| 17. Inlet gas pretreatment if applicable: | 18. Number and rating of transformer/rectifier sets (kilovolts and milliamperes): |
| 19. Liquid flow rate for wet precipitators (gal/min): | 20. Exhaust gas flow rate (acf/sec): |

CONTROL EQUIPMENT - ELECTROSTATIC PRECIPITATOR -- Form 4530-115
AIR POLLUTION CONTROL PERMIT APPLICATION INSTRUCTIONS

NOTE: Use of this form is required by the Department for any air pollution control permit application filed pursuant to ss. 285.61, 285.62 or 285.66, Wis. Stats. Completion of this form is mandatory. The Department will not consider or act upon your application unless you complete and submit this application form. It is not the Department's intention to use any personally identifiable information from this form for any other purpose.

Complete one form for each control device used to reduce air pollution emissions.

- Item 1 Provide the name of the facility.
- Item 2 Provide the facility identification (FID) number that appears on the annual emission inventory reports.
- Item 3 Provide the identification number for the stack exhausting to this device. Use the same number used on form 4530-103.
- Item 4 Provide the identification number from the appropriate form(s) 4530-104, -105, -106, -107, -108, or -109 completed for the emissions unit(s) that will have its emissions reduced by this control equipment.
- Item 5 Assign an identification number to this control device (e.g., C01). Use this number when referring to this device throughout the rest of your application.
- Item 6 Indicate the equipment manufacturer and its model number.
- Item 7 Provide the installation date of this device. If this is a new device, indicate that it is new.
- Item 8 Describe the device indicating if it is single-stage, two-stage, or tubular, etc. Discuss the method of gas flow distribution, and any other relevant information. Attach a blueprint or diagram of the device that clearly shows all equipment parts necessary for successful operation. Manufacturer's literature may be used. Attach extra information on form 4530-135.
- Item 9 For each pollutant controlled, enter the inlet pollutant concentration and outlet pollutant concentration (use the same units), hood capture efficiency, and the overall efficiency of the control device. **YOU MUST DOCUMENT** all data by stack test, manufacturer-supplied guarantees, or by other means approved by the Department. Indicate that data is attached.
- Item 10 Discuss how collected material will be contained, transported, and ultimately disposed of. Examples of ultimate disposal include the local wastewater treatment plant or landfill. Describe any waste recycling or reuse.
- Item 11 Give the primary and secondary operating voltage, current, and spark rate of each field.
- Item 12 Prepare a malfunction prevention and abatement plan according to sec. NR 439.11, Wis. Adm. Code. Please be as detailed as possible, keeping in mind that the rule contains more detail than appears at Item 12 of this form. While it is not necessary to submit this plan with the permit application, the Department may at any time request a copy of this plan from the facility.

Section B - This section must be completed by sources installing new equipment or by existing sources which cannot otherwise document the control efficiency of this device (such as with current stack test results). **IF YOU HAVE ALREADY SUBSTANTIATED THE CONTROL EFFICIENCY OF THE DEVICE AT ITEM 9 ABOVE, YOU DO NOT NEED TO COMPLETE SECTION B.**

- Item 13 Give the length L, width W, and height H, of each field (in feet). The width is the distance between the collection plates. For tubular precipitators, give the diameter D and the length L of the tube.
- Item 14 Provide the particle migration velocity (in feet per second). You can obtain this from manufacturer's specifications or calculate it mathematically. Show all calculations or document specifications.
- Item 15 Give the effective collecting plate area of the precipitator (in square feet). This is the sum of the areas of all plate surfaces where particles are collected.
- Item 16 Indicate the number of fields in the ESP. This is the number of individual sections installed in the device. Each field has a separate power supply and controls to adjust for varying gas conditions.
- Item 17 If inlet gas is treated to control conductivity, describe the pretreatment process.
- Item 18 List the number of transformer-rectifier sets and their ratings (in Kilovolts and milliamperes or in kVA).
- Item 19 If this is a wet precipitator, give the inlet liquid flow rate (in gallons per minute).
- Item 20 Give the exhaust gas flow rate (in actual cubic feet of gas per second).