



**Minnesota Pollution
Control Agency**

520 Lafayette Road North
St. Paul, MN 55155-4194

CAP-GI-05A

Pollution Control Equipment Information
Air Quality Permit Program

1) AQ Facility ID No.: _____ 2) Facility Name: _____

3a)	3b)	3c)	3d)	3e)	3f)	3g)
Control Equip ID No.	CE Type Code	Description	Manufacturer	Model No.	Pollutants Controlled	Control Efficiency

Form CAP-GI-05A Instructions

If you have previously received an air emissions permit from the Minnesota Pollution Control Agency (MPCA) or have filed an annual emissions inventory, contact the MPCA at 651-296-6300 or 1-800-657-3864 prior to filling out this form. Ask for a printout of the MPCA's most recent information entered in the permitting and inventory database. Start with (and edit) this information when filling out the Capped Application form.

- 1) **AQ Facility ID No.** -- Fill in your Air Quality (AQ) Facility Number as indicated on Form CAP-GI-01, item 1a.
- 2) **Facility Name** -- Enter your facility name as indicated on Form CAP-GI-01, item 2.
- 3a) **Control Equipment (CE) ID No.** -- Assign a Control Equipment ID number to each piece of pollution control equipment (e.g., fabric filter or afterburner) or pollution control practice (e.g., dust suppression by water spray). Number the pollution control equipment/practices at your facility sequentially (001, 002, 003, etc). The assigned number will be used in other forms to identify control equipment that is described in this form. This ID number is unique to this piece of equipment and must be used consistently throughout the application.
- 3b) **CE ID Code** -- Fill in the appropriate Control Equipment (CE) Type Code from Table CAP-GI-05A.1 at the end of these instructions. The type-code for the control equipment must be entered correctly, since this will be the primary means of recording and identifying the type of air pollution control equipment at this facility.
- 3c) **Description** -- Fill in the appropriate control equipment or control practice description. This description must correspond with the Control Equipment Type Code in the second column (Item 3b).
- 3d) **Manufacturer** -- Fill in the name of the pollution control equipment manufacturer. Pollution control practices such as dust suppression by water spray or chemical oxidation may not use control equipment. In these cases, fill N/A for items 3d and 3e.
- 3e) **Model No.** -- Fill in the manufacturer's model number for the pollution control equipment. If no control equipment is used, fill in NA.
- 3f) **Pollutants Controlled** -- Fill in the pollutants controlled. The pollutants identified in this column should match one or more of the pollutants listed in Table CAP-GI-05A.1. List each pollutant in a column filling in each box with only one pollutant. For example, if a wet scrubber is used to control particulate matter and Particulate Matter less than 10 um in size (PM10) emissions from an emissions unit at your facility, list Particulate Matter (PM) in the first row and PM10 in the second. It is not necessary to repeat the other information in the other columns (i.e., equipment manufacturer's name, equipment model number, etc.).
- 3g) **Control Efficiency** -- Fill in the control efficiency using the values provided in Table CAP-GI-05A.1. These values are taken from Minn. R. 7007.0070 [Listed Control Equipment and Control Equipment Efficiencies].

Total enclosure is defined in Minnesota Rules as "an enclosure that completely surrounds emissions from an emissions unit such that all emissions are captured and discharged through ductwork to control equipment".

Hoods and other devices do not completely surround the emissions from an emission unit and therefore do not capture all of the pollutants emitted. An example of a hood is a three-sided spray booth because the enclosure does not completely surround the emissions. You may only take credit for controls that capture emissions through a hood if the hood is certified and maintained as described in Minn. R. 7011.0072.

Fill out form CAP-HE-01 for each hood that is associated with control equipment listed on this form.

Table CAP-GI-05A.1

Control Equipment Type Code	Pollutant Controlled	Equipment Type (see Minn. R. 7011.0070 for further descriptions)	Assumed Efficiency Using a Total Enclosure	Assumed Efficiency Using a Certified Hood
007	PM, PM ₁₀	Centrifugal Collector (cyclone) - high efficiency	PM – 90% PM ₁₀ – 78%	PM – 72% PM ₁₀ – 62%
008	PM, PM ₁₀	Centrifugal Collector (cyclone) - medium efficiency	PM – 80% PM ₁₀ – 60%	PM – 64% PM ₁₀ – 48%
009	PM, PM ₁₀	Centrifugal Collector (cyclone) - low efficiency	PM – 25% PM ₁₀ – 25%	PM – 20% PM ₁₀ – 20%
076	PM, PM ₁₀	Multiple Cyclone without Fly Ash Reinjection	PM – 90% PM ₁₀ – 72%	PM – 72% PM ₁₀ – 58%
057, 085	PM, PM ₁₀	Wet Cyclone Separator or Cyclonic Scrubbers	PM – 84% PM ₁₀ – 84%	PM – 84% PM ₁₀ – 84%

Control Equipment Type Code	Pollutant Controlled	Equipment Type (see Minn. R. 7011.0070 for further descriptions)	Assumed Efficiency Using a Total Enclosure	Assumed Efficiency Using a Certified Hood
012	PM ₁₀	Electrostatic Precipitator used for boiler fly ash control	PM ₁₀ – 40%	NA
012	PM, PM ₁₀	Electrostatic Precipitator used for other applications	PM – 98% PM ₁₀ – 94%	PM – 78% PM ₁₀ – 75%
016	PM, PM ₁₀	Fabric Filter (T>250 °F), high temp.	PM – 99% PM ₁₀ – 93%	PM – 79% PM ₁₀ – 74%
017	PM, PM ₁₀	Fabric Filter (180 °F >T>250 °F), med. Temp.	PM – 99% PM ₁₀ – 93%	PM – 79% PM ₁₀ – 74%
018	PM, PM ₁₀	Fabric Filter (T<180 °F), low temp.	PM – 99% PM ₁₀ – 93%	PM – 79% PM ₁₀ – 74%
052	PM, PM ₁₀	Spray Tower	PM – 85% PM ₁₀ – 84%	PM – 68% PM ₁₀ – 68%
053	PM, PM ₁₀	Venturi Scrubber	PM – 94% PM ₁₀ – 84%	PM – 76% PM ₁₀ – 68%
055	PM, PM ₁₀	Impingement Plate Scrubber	PM – 77% PM ₁₀ – 77%	PM – 62% PM ₁₀ – 62%
056, 113	PM, PM ₁₀	Mechanically Aided Separator	PM – 64% PM ₁₀ – 5%	PM – 52% PM ₁₀ – 4%
058	PM, PM ₁₀	Wall or Panel Filter	PM – 85% PM ₁₀ – 85%	PM – 68% PM ₁₀ – 68%
101	PM, PM ₁₀	HEPA Filter or ULPA Filter	PM – 99.98% PM ₁₀ – 99.98%	PM – 80% PM ₁₀ – 80%
503	PM, PM ₁₀	Charged Filter	PM – 94% PM ₁₀ – 84%	PM – 76% PM ₁₀ – 68%
517	PM, PM ₁₀	Condensation Scrubber	PM – 94% PM ₁₀ – 84%	PM – 76% PM ₁₀ – 68%
019, 020, 109, 116, 509	VOC, CO, PM ₁₀ , PM	Catalytic Afterburner	VOC – 94% PM – 62% PM ₁₀ – 62% CO – 94%	VOC – 76% PM – 50% PM ₁₀ – 50% CO – 76%
021, 022, 131, 133, 510	VOC, CO, PM ₁₀ , PM	Thermal Afterburner	VOC – 97% PM – 62% PM ₁₀ – 62% CO – 97%	VOC – 78% PM – 50% PM ₁₀ – 50% CO – 78%
023	VOC	Flaring or Direct Combustor	VOC – 98% PM – 61% PM ₁₀ – 61% CO – 98%	VOC – 79% PM – 50% PM ₁₀ – 50% CO – 79%

For each pollution control equipment unit, submit a copy of the portion of the manufacturer's specification or test plan with the appropriate operating parameters highlighted. See the instructions for the required operating parameters for each type of control equipment.