



**Minnesota Pollution  
Control Agency**

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

# CAP-WS-01

## Capped Permit Pre-Change Analysis

Air Quality Permit Program

Doc Type: Permit Application

### Instructions on Page 2

Use this worksheet prior to making a physical or operational change which **increases** emissions at a facility holding a capped permit. Records of this analysis must be kept on site. Please do not send this to the Minnesota Pollution Control Agency (MPCA).

**1) Project Description:**

**2) Date Actual Construction or Change in Operations to Begin:** \_\_\_\_\_

**3) Estimated Emissions Summary.** Update CAP-GI-07 (Facility Emissions Summary) to include the changed hourly potential and actual annual emissions at each emissions unit associated with or potentially affected by your project. Attach the updated CAP-GI-07 to this form.

**4) Are estimated total facility emissions (after change) of each pollutant less than the appropriate thresholds in Minn. R. 7007.1141?**

- ☐ Yes, go to question 5.  
☐ No, this change is not allowed under a capped permit. If you wish to proceed with the change as proposed, you must obtain another type of permit.

**5) If the change resulted in increased PM<sub>10</sub>, SO<sub>2</sub>, or NO<sub>x</sub> emissions, you must perform an ambient air quality assessment as described in Minn. R. 7007.1148. Were the one-hour, three-hour, and 24-hour SO<sub>2</sub>; the 24-hour PM<sub>10</sub>; and annual NO<sub>2</sub> concentrations predicted in the assessment at and beyond the property line of your facility lower than the corresponding standard in Minn. R. 7009.0080?**

- ☐ Yes, go to question 6. Keep the assessment results with this form.  
☐ No, this change is not allowed under a capped permit. If you wish to proceed with the change as proposed, you must obtain another type of permit.

**6) Does the change result in your facility no longer being eligible for its capped permit for any of the reasons listed under Minn. R. 7007.1140, subpart 2 (Sources that may not obtain a capped permit)?**

- ☐ No, go to question 7.  
☐ Yes, this change is not allowed under a capped permit. If you wish to proceed with the change as proposed, you must obtain another type of permit.

**7) Does the change result in your facility being subject to any new applicable requirements, e.g., Minn. R. 7011.0060-7011.0080 (Control Equipment rule), New Source Performance Standard or other standards allowed under the capped permit?**

- ☐ Yes, be sure to update your facility's compliance plan within 15 working days.  
☐ No.

**8) Actual date on which you began construction of the project:** \_\_\_\_\_

**Attach the Following Information to this Worksheet:**

- An updated CAP-GI-07 that includes the potential hourly and projected actual annual emissions after the change.
- Supporting calculations (EC forms, material content data, copies of reference materials used for emissions factors, test reports, etc.).
- Summary of the ambient air quality analysis if one was performed.

Fill out the appropriate forms for any modified, new or replacement emission units, as applicable. Submit these to the MPCA with your next annual emissions inventory. The MPCA uses this information to update its database of equipment at your facility.

## Instructions for Form CAP-WS-01

You do not have to use this worksheet, but the Minnesota Pollution Control Agency (MPCA) recommends it as a tool to document that you properly complied with Minn. R. 7007.1146, subp. 3. This rule requires that before you make a physical or operational change which increases emissions you must:

- Demonstrate that estimated actual annual emissions after the change are less than the capped permit thresholds.
- Demonstrate that ambient air quality standards will be met using the methods described in Minn. R. 7007.1148 if the change results in an increase of Sulfur Dioxide (SO<sub>2</sub>), Nitrogen Oxides (NO<sub>x</sub>), or Particulate matter less than 10 µm in size (PM<sub>10</sub>) emissions.

This worksheet addresses the emissions of all regulated pollutants.

- 1) **Description of Project** – Provide a description of each physical and operational change included in this project. Include a list of all activities affected by the project using the identification codes on the GI-05 forms from your most recent permit application (e.g., EU 001, CE 001, TK 005, FS 002) or your emission inventory submittal, whichever is more recent. For units being modified, use the same identification codes. For new or replacement units, assign a new number that is consecutive to the last number assigned.

If you hold an option 1 capped permit, this description should include changes to insignificant activities from Minn. R. 7007.1300, subp. 3 and conditionally insignificant activities from Minn. R. ch.7008 that are related to this project.

**Physical Changes:** Physical changes include the following activities:

- installation of new or additional emission units, such as adding a boiler
- replacement of emission units, such as removing a boiler and installing a new one in its place
- changes to existing emission units, such as replacing a burner on a boiler with one of higher capacity or which can burn different fuels

**Operational Changes:** Operational changes are any type of change a source can make which might increase emissions and that are not a physical change as described above.

Examples of operational changes include:

- changing to solvents with higher Particulate Matter (PM), Greenhouse Gas (GHG), Volatile Organic Compound (VOC), or Hazardous Air Pollutant (HAP) contents than those used in previous permit applications
- using a different chemical in the production of a product for which the equipment is already in place
- increasing hours of operation or production rate beyond those levels used in earlier evaluations

- 2) **Date Actual Construction or Change in Operation to Begin** -- Fill in the date you expect to begin construction of your project or make the operational change.

- 3) **Estimated Emissions Summary.** Calculate the potential hourly and projected actual annual emissions **after** the change by updating the form CAP-GI-07 (Facility Emissions Summary) for all emission units at your facility. When projecting the actual annual emissions, you must use the calculation methods found in Minn. R. 7007.1147. (You filled out CAP-GI-07 as part of the capped permit application.) CAP-GI-07 is available at <http://www.pca.state.mn.us/nwqh472>. Make additional copies of the table in the form as needed for additional activities and/or pollutants. When filling out this form, for units being modified, use the same identification codes. For new or replacement units, assign a new number that is consecutive to the last number assigned.

- 4) **Are estimated total facility emissions (after change) of each pollutant less than the appropriate thresholds in Minn. R. 7007.1141?**

Compare the estimated facility-wide actual emissions for each pollutant in CAP-GI-07 with the table on the next page. To remain eligible for the capped permit, your facility's actual emissions must remain below the thresholds of your capped permit option. If the change or modification renders your facility ineligible for its current capped permit option or ineligible for either option, you must follow the procedures in Minn. R. 7007.1142 (Capped Permit Issuance and Change of Permit Status). Contact the MPCA at 651-296-6300 or 800-657-3864 for information about application forms.

**Capped Permit Emission Thresholds for Options 1 and 2**

Pollutant	Option 1 Threshold (ton/year)	Option 2 Threshold (ton/year)
HAP	9.0 tons per year for a single HAP 20 tons per year total for all HAPs	8.0 tons per year for a single HAP 20 tons per year total for all HAPs
PM	90 tons per year	75 tons per year
PM <sub>10</sub>	90 tons per year	75 tons per year

Pollutant	Option 1 Threshold (ton/year)	Option 2 Threshold (ton/year)
VOC	90 tons per year	85 tons per year
SO <sub>2</sub>	90 tons per year	90 tons per year
NO <sub>x</sub>	90 tons per year	85 tons per year
CO	90 tons per year	85 tons per year
Pb	0.50 tons/year	0.50 tons/year
CO <sub>2e</sub>	90,000 tons/year	85,000 tons/year

CO = Carbon Monoxide, Pb = Lead, CO<sub>2e</sub> = Carbon Dioxide Equivalent

- 5) **Were the one-hour, three-hour, and 24-hour SO<sub>2</sub>; the 24-hour PM<sub>10</sub>; and annual NO<sub>2</sub> concentrations predicted in the assessment at and beyond the property line of your facility lower than the corresponding standard in Minn. R. 7009.0080?**

If the change resulted in increased PM<sub>10</sub>, SO<sub>2</sub>, or NO<sub>x</sub> emissions, you must perform an ambient air quality analysis as described in Minn. R. 7007.1148. See <http://www.pca.state.mn.us/hqzg483> for more information about the assessment. If you've added emission units, you must add those emission units to the assessment you previously performed for capped permit eligibility.

- 6) **Does the change result in your facility no longer being eligible for its capped permit for any of the reasons listed under Minn. R. 7007.1140, subpart 2 (Sources that may not obtain a capped permit)?**

Evaluate the change you plan to make to see if it may make your facility subject to any new applicable requirements or other conditions that would result in your facility no longer being eligible for its capped permit option. Minn. R. 7007.1140, subp. 2 lists the conditions under which a facility is not eligible for a capped permit. For example, if the change would result in your facility being subject to a New Source Performance Standard (NSPS) other than one of those listed in Minn. R. 7007.1140, subp. 2 (E), then your facility would no longer be eligible for a capped permit.

- 7) **Does the change result in your facility being subject to any new applicable requirements, e.g., Minn. R. 7011.0060-7011.0080 (Control Equipment rule), NSPS or other standards?**

Evaluate the change you plan to make to see if it may be subject to any new applicable requirements. The CAP-GI-09 series of forms may be useful for this evaluation. Minn. R. 7007.1146, subp. 4 requires you to update your compliance plan within 15 working days of making the change.

- 8) **Actual date on which you began construction of the project** – Fill in the date you **began** construction on any part of the project or began the operational change. (This information will be filled in after the change has taken place.)