



**Minnesota Pollution
Control Agency**

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

Industrial Non-Contact Cooling Water Application

NPDES/SDS Permit Program

Doc Type: Permit Application

The National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) Permit Program regulates wastewater discharges to land and surface waters. This application applies to facilities that discharge non-contact cooling water. Non-contact cooling water is water that is used to reduce temperature that does not come into contact with a raw material, intermediate product, waste product other than heat, or finished product. It includes water used in most air conditioning equipment. Any other discharge types will require a different permit application.

Complete the application by typing or printing in black ink. Attach additional sheets as necessary. For more information, please contact the Minnesota Pollution Control Agency (MPCA) at: In Metro Area: 651-296-6300 or Outside Metro Area: 800-657-3864.

Permittee name: _____ Permit number: MN _____

Facility Information

1. What is/are the Standard Industrial Classification (SIC) code(s) for the principal activity(ies) conducted at the facility? _____
2. What is/are the average production/consumption rates at which this/these activities occur? _____
3. What is/are the maximum production/consumption rates at which this/these activities occur? _____

The information for questions 1-3 must be projected for the next five years, since the MPCA permit will likely cover this period. The Standard Industrial Classification (SIC) code classification was developed by the U.S. Department of Commerce to classify facilities by their economic activities. SIC codes are commonly used on federal tax forms and unemployment insurance information provided to the Minnesota Department of Jobs and Training. If you do not know the four-digit SIC code number for your facility, please consult the STANDARD INDUSTRIAL CLASSIFICATION MANUAL, which is available in most public libraries throughout the U.S.

Production/consumption rates should be expressed as, for example, "100,000 lbs/day of milk", "600 wafers/month of integrated circuits", "5100 bbls/day of fuel oil", "23,000 cans/week of canned poultry."

Water Supply

4. What will be the source(s) of the cooling water?	What will be the rates at which it is supplied, in gal/day?	
	Average flow	Maximum flow (for example, in mid-summer)
Municipal water supply, chlorinated		
Municipal water supply, non-chlorinated		
Private ground water supply well, chlorinated		
Private ground water supply well, non-chlorinated		
Private surface water source, chlorinated		
Private surface water source, non-chlorinated		

The flow values above are: ☐ Metered readings ☐ Estimated based on pump capacity and times of pumping

5. If you will have a cooling water supply other than municipal water, name the surface water body or groundwater aquifer where the intake will be located: _____
6. Have you already obtained a Minnesota Department of Natural Resources (DNR) water appropriations permit for this non-municipal water supply? ☐ Yes ☐ No ☐ Not Applicable
If yes, what is the DNR permit number? _____ DNR permit expiration date? _____

7. If this DNR water appropriations permit will expire within the next five years, please describe how your cooling system will be modified before the DNR permit expires: _____
8. The cooling water will be:
- ☐ Run once-through the cooling system before it is routed elsewhere
- ☐ Recirculated: _____ times through the cooling system before it is routed elsewhere
9. What is the reuse potential of the cooling water before discharge to a storm sewer or surface waters? Have you considered, for example, water conservation measures, or use of the cooling water for industrial process water supply, cropland or lawn irrigation? _____
10. The used non-contact cooling water flow will be routed to (check those that apply):
- ☐ Contact cooling or industrial process water use ☐ Surface waters (*ditches, streams, lakes, wetlands, etc.*)
- ☐ Storm water retention basin or pond ☐ Drain tile system
- ☐ Municipal storm sewer ☐ Septic tank/drainfield
- ☐ Municipal sanitary sewer (*If so, do you have approval from the local sanitary sewer district?*) ☐ Yes ☐ No
- ☐ On-land disposal or land application (including irrigation of croplands or lawns)
- ☐ Other (*explain in detail*): _____
11. Indicate the information requested below for each discharge point that includes cooling water. (*Discharge points include, for example, pipes, culverts and spray nozzles.*)

Station ID/ Outfall Number	Discharge flow rate, million gallons per day		Flow duration and frequency				Where will the used cooling water go? What route will it take to surface receiving waters and/or land application sites?
	Average	Maximum	Months of flow	Weeks/ year	Days/ week	Hours/ day	

If the cooling water will be routed to a municipal sewer, please contact the sewer authority to confirm where the sewer discharges. Include this sewer route information in the right-hand box above.

12. Discuss below the proposed treatment for the cooling water. Explain in detail the extent to which this treatment system will reduce the levels of the potential pollutants, including those identified in questions 13, 14 and 17 below, in the cooling water flow. For cooling water containing chlorine, dechlorination treatment is needed before discharge. For permit reissuance or modification, note those changes to the treatment system since this permit was last issued.

13. List below all chemical additives that are used or proposed to be used at the facility. This includes the process reagents, flocculants, descalants, corrosion inhibitors, biocides, wastewater treatment chemical additives, chlorine or other disinfectants, detergents, cleaning products, chemical dust suppressants, freeze conditioning agents, etc.

Chemical	Purpose	Location of chemical addition in process (e.g., to raw water supply, at greensand filter, before RO unit #2, etc.)	Amount/duration/frequency of addition (i.e., continuous or slug dosing. If slug dosing give amount/duration and frequency of addition; e.g., slug dosing 13.5 gal/3hours, once every two weeks)	Average rate of use (weight or volume per day)	Maximum rate of use (weight or volume per day)

Attach the Material Safety Data Sheets, complete product labels and any other information on chemical composition, aquatic toxicity, human health, and environmental fate for each chemical additive.

An Additional Chemical Additives Attachment is available on the MPCA website at <http://www.pca.state.mn.us/water/permits/index.html> if more space is needed.

14. Describe how and where the substances cleaned from the insides of the tubes/heat exchangers, and the sediments and residual solids, including scale residues, from the cooling water systems at the facility, will be removed and disposed of:

15. Indicate the name of the laboratory that will analyze your samples: _____

Minnesota Department of Health (MDH) Laboratory Certification No. for this laboratory: _____

16. Attach a list of all known or reasonably believed to be present at each discharge point and provide sample results for those pollutants. Pollutants may include, but are not limited to, temperature, pH, total residual bromine, total residual chlorine, total chloride, total phosphorus, copper, lead, and molybdenum. Clearly indicate the date and location where sample was taken and method of sampling (e.g., grab, composite) for each sample.

If this is an application for reissuance of an existing permit, review your existing NPDES/SDS permit to see if it has special testing requirements as part of the application for reissuance process.

Review the application and ensure all requested items are submitted with this application.

Please make a copy for your records.

Refer to the *Transmittal Form* for mailing instructions.