



**Minnesota Pollution
Control Agency**

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

Industrial Land Application of Industrial By-Product Application

SDS Permit Program

Doc Type: Permit Application

The State Disposal System (SDS) Permit Program regulates wastewater discharges to land. This application applies to facilities that land apply Type IV industrial by-products. 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

Basic Information

1. Industrial by-product description	Total quantity land applied per year (complete as applicable)		
	Dry tons	Cubic yards	Gallons

2. Describe the processes resulting in the industrial by-product(s). Describe the physical and chemical characteristics of the industrial by-product(s).

3. 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.

Industrial By-Product Characterization

Complete this section for each industrial by-product land applied, attach additional sheets as needed.

4. Industrial By-Product Description: _____
- Is the industrial by-product a hazardous waste? ☐ Yes ☐ No
 - Does the industrial by-product contain sewage from sanitary waste? ☐ Yes ☐ No
 - Does the industrial by-product contain other substances likely to contain pathogens (blood, meat, fish, poultry, eggs, etc)?
☐ Yes ☐ No
 - Is the industrial by-product odorous or attract vectors such as rodents, birds, flies, etc. when stored or land applied?
☐ Yes ☐ No If yes, explain any treatment or management that will be used to control these problems:

5. Select the factor that application rates are based on:

- ☐ Nitrogen
☐ Sodium
☐ Hydraulic loading
☐ Others (specify): _____

6. Describe how any of the above factors affect your application rates:

7. The minimum acreage needed for land application of this industrial by-product: _____ acres

8. The following table contains the most common analytes which may be present in your industrial by-product. Complete the table with analytical results from a sample which is representative of the industrial by-product that will be land applied. If you can provide information about your process or past testing results that show the analyte is not likely to be present or is present at concentrations below environmental concern, the analyte need not be tested for. This can be indicated by placing a check in the column labeled "Not Required". Attach lab sheets for all analytical data.

Analyte	Not Required	Date of Analysis	Result	Reporting Unit ¹
Total Solids	<input type="checkbox"/>			Percent
Total Volatile Solids	<input type="checkbox"/>			Percent
pH	<input type="checkbox"/>			SU
Total Arsenic	<input type="checkbox"/>			mg/kg
Total Boron	<input type="checkbox"/>			mg/kg
Total Cadmium	<input type="checkbox"/>			mg/kg
Total Carbon	<input type="checkbox"/>			mg/kg
Total Calcium	<input type="checkbox"/>			mg/kg
Total Chloride	<input type="checkbox"/>			mg/kg
Total Cobalt	<input type="checkbox"/>			mg/kg ¹
Total Copper	<input type="checkbox"/>			mg/kg
Total Iron	<input type="checkbox"/>			mg/kg
Total Lead	<input type="checkbox"/>			mg/kg
Total Magnesium	<input type="checkbox"/>			mg/kg
Total Manganese	<input type="checkbox"/>			mg/kg
Total Mercury	<input type="checkbox"/>			mg/kg
Total Molybdenum	<input type="checkbox"/>			mg/kg
Total Nickel	<input type="checkbox"/>			mg/kg
Oil and Grease	<input type="checkbox"/>			mg/kg
Total Kjeldahl Nitrogen	<input type="checkbox"/>			Percent
Total Ammonia Nitrogen	<input type="checkbox"/>			Percent
Total Nitrate Nitrogen	<input type="checkbox"/>			Percent

Analyte	Not Required	Date of Analysis	Result	Reporting Unit ¹
Total Phosphorus	<input type="checkbox"/>			Percent
Total Potassium	<input type="checkbox"/>			Percent
Total Selenium	<input type="checkbox"/>			mg/kg
Total Sodium	<input type="checkbox"/>			mg/kg
Total Sulfur	<input type="checkbox"/>			mg/kg
Surfactants	<input type="checkbox"/>			mg/kg
Total Zinc	<input type="checkbox"/>			mg/kg
Total Polychlorinated Biphenyls	<input type="checkbox"/>			mg/kg
2,3,7,8-tetrachlorodibenzo-p-dioxin	<input type="checkbox"/>			ppt
2,3,7,8-tetrachlorodibenzo-p-furan	<input type="checkbox"/>			ppt
other ²	<input type="checkbox"/>			

¹ Reported on dry weight basis for all parameters other than pH.

² If other contaminants are present in the industrial by-product not included here, include the analysis results with the permit application. Contact the MPCA for assistance in making this determination.

9. During which months are industrial by-products land applied (check all that apply)?

☐ Jan ☐ Feb ☐ Mar ☐ April ☐ May ☐ June ☐ July ☐ Aug ☐ Sept ☐ Oct ☐ Nov ☐ Dec

10. Frequency of industrial by-product land application (i.e., daily, 1 x week, 2 x year, etc.):

11. What options for management does your facility have during inclement weather or when field access is restricted?

12. Describe the methods and equipment used for application:

13. If you are utilizing unique or alternative methods and standards for land application you must provide a management plan and information supporting that the proposed management will be protective of the environment and how this was determined.

Storage

14. Do you store industrial by-products prior to land application? ☐ Yes ☐ No **If yes, complete this section.**

15. Do you store dewatered industrial by-products in the field prior to land application? ☐ Yes ☐ No

If yes, indicate the length of time industrial by-products are stored in the field: _____

16. Describe the type of storage structure (lagoon, tank, etc.) and include the liner characteristics:

17. Total storage capacity (cubic yards or gallons): _____ Maximum storage time: _____ days

18. Is this storage facility currently permitted by the MPCA? ☐ Yes ☐ No

If yes, indicate the permit number and attach any written approvals authorizing use of the storage structure by MPCA:

19. Provide the information below on the storage location and attach a topographic map of the storage facility.

Street address: _____ County: _____

City/Township: _____ State: _____ Zip code: _____

Township (26-71 or 101-168)		Range (1-51)		Section (1-36)	¼ Section (NW, NE, SW, SE)	¼ of ¼ Section (NW, NE, SW, SE)
T	N	R	<input type="checkbox"/> E <input type="checkbox"/> W			

20. List all industrial by-products and/or other materials stored in this structure:

Material	Quantity/Year

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.