



# Land Application of Trap and Holding Tank Wastes

## Management guidance for generators, haulers, and land applicators

### Alternatives to land apply trap and holding tank wastes

Generally, wastes from floor drains, traps, oil-water separators, and holding tanks (trap and holding tank waste that comprise the drain system) may not be disposed of by land application unless the wastes benefit the soil. However, the Minnesota Pollution Control Agency (MPCA) has decided to allow land application of those wastes if they meet certain eligibility criteria and are only land applied under the conditions discussed in this guidance document. If you do not follow these conditions, you must manage the waste under any otherwise applicable requirements of the Minnesota Statutes and Rules.

This guidance document discusses land application of wastes from floor drains, traps, oil-water separators, and holding tanks. For more information regarding other potential management of these wastes, see MPCA hazardous waste fact sheet #w-hw4-18, [Managing Floor Drains and Flammable Traps](http://www.pca.state.mn.us/publications/w-hw4-18.pdf), at <http://www.pca.state.mn.us/publications/w-hw4-18.pdf>.

### Eligible generators

You are eligible to apply the guidance and allowances contained in this guidance document as a generator of trap or holding tank waste if you meet all of the following requirements:

- Your site is not subject to a Minnesota or Federal water quality or waste disposal permit.
- It generates less than 50,000 gallons or ten dry tons of trap or holding tank waste annually.
- Your trap or holding tank waste is not a biosolid or Listed or Characteristic hazardous waste under Federal or Minnesota definitions.
- Your trap or holding tank waste is not potentially contaminated with perfluorochemicals (PFCs), including any waste from metal plating, semiconductor manufacturing, carpet or upholstery cleaning, or manufacture or use of firefighting foams.
- You implement and document the shop Best Management Practices (BMPs) listed in Table 2 on page seven of this guidance document. These BMPs are also listed in MPCA hazardous waste fact sheet #w-hw4-18, [Managing Floor Drains and Flammable Traps](http://www.pca.state.mn.us/publications/w-hw4-18.pdf), at <http://www.pca.state.mn.us/publications/w-hw4-18.pdf>.
- You sample and analyze your trap or holding tank waste according to the directions in this guidance document and show it does not exceed the lowest regulated thresholds for any of the standards referenced below in the *Evaluating the test results from your trap and holding tank waste* section of this document.

### Ineligible generators and wastes

If your site does not qualify as described above, you may need to obtain a State Disposal System (SDS) Permit or other approval from the MPCA to land apply the trap or holding tank waste you generate. See the *More information* section of this document to contact your nearest MPCA solid waste staff for guidance in disposing of this waste.

## Sampling the trap and holding tank waste you have generated

Follow these directions to collect samples of the trap or holding tank waste you generate for analysis to determine if it is eligible for land application under the allowances in this guidance document.

### When should you sample your trap and holding tank waste?

Sample your trap or holding tank waste:

- Prior to the first time you intend to land apply the waste.
- Each time a storage tank that empties through the trap, separator, or holding tank is emptied.
- For each further 10,000 gallon batch of waste you intend to land apply.

Sample wastes from each part of your drain system that you intend to dispose of by land application.

Collect your samples no more than 60 days before the waste will be land applied. If your samples were collected and analyzed more than 60 days before you intend to land apply, your waste may not be removed from your site for land application until it is resampled. The MPCA may issue an extension to this period in limited circumstances if you, the generator, show that the delay will not negatively impact the environment and was for reasons beyond your control.

**Note to haulers and land applicators:** Do not transport or land apply any trap or holding tank waste for which the generator cannot document that their tested samples were collected with the previous 60 days unless they have been issued a time extension by the MPCA and provide you with a copy.

### How should you sample your traps and holding tanks?

Before sampling a trap or holding tank, ensure it does not contain floating oils or greases. If it does, remove and manage them as used oil. Find more information on managing used oil in MPCA hazardous waste fact sheet #w-hw4-30, [Managing Used Oil and Related Wastes](http://www.pca.state.mn.us/publications/w-hw4-30.pdf) at <http://www.pca.state.mn.us/publications/w-hw4-30.pdf>.

Next, use a clean tool to thoroughly mix the contents of the trap or tank, including any sediment from the bottom of a trap or tank, to create a slurry. Then, using a slurry sampling device such as a SludgeJudge™ or a similar tool, collect a sample of the slurry from the holding tank. Mix the sample again in a clean bucket or pail before filling appropriate containers to ensure you provide a representative sample.

Follow the sample preservation and submittal directions of the laboratory you have chosen to analyze your waste. See the *Testing your trap and holding tank waste you have generated* section below in this document for guidance in choosing an analytical laboratory.

## Testing the trap and holding tank waste you have generated

Test both the solid and liquid portions of your trap and holding tank waste for each of the parameters listed in Table 1 of this guidance document and for the hazardous waste Toxicity Characteristic contaminants. Ensure the laboratory you have chosen separates the sample you submit into solid and liquid portions and tests both portions of the waste.

Select an environmental laboratory accredited by a reviewing body recognized by the MPCA that can correctly analyze your waste for all of these items. One reviewing body recognized by the MPCA is the Minnesota Department of Health (MDH) Laboratory Accreditation Program. You may locate MDH-accredited laboratories through the MDH's website at <http://www.health.state.mn.us>.

In addition, ensure that the laboratory analyzes your waste using the most current final version of the applicable test method (Method 6010 or 6010 for metals and Method 8260 for volatile organic compounds). The most current final versions of the applicable test methods are available in MPCA

quality assurance fact sheet #p-eao2-09c, [Methods and Analytes Requiring Laboratory Certification](http://www.pca.state.mn.us/publications/p-eao2-09c.pdf), available at <http://www.pca.state.mn.us/publications/p-eao2-09c.pdf>.

Confirm that your chosen laboratory utilizes reporting limits which are at or below the regulated thresholds listed in the referenced standards for each item when they test your waste. If the reporting limit for a test run by your laboratory is above the regulated threshold, you must assume your waste exceeds the standard.

## Evaluating the test results from your trap and holding tank waste

### Solid portion of the waste

Compare the test results for each parameter listed in Table 1 of this guidance document for the solid portion of your waste against the solids maximum thresholds listed in the third column of Table 1. The values listed in this column are presented in units of total milligrams of contaminant per kilogram of the waste (mg/kg). This unit is equivalent to parts per million (ppm).

### Liquid portion of the waste

Compare the test results for each parameter listed in Table 1 of this guidance document for the liquid portion of your waste against the liquids maximum thresholds listed in the fourth column of Table 1. The values listed in this column are presented in units of total micrograms of contaminant per liter of liquid waste ( $\mu\text{g/L}$ ). This unit is equivalent to parts per billion (ppb).

Note: Liquids do not need to be tested for contaminants marked with an asterisk \* in the fourth column.

Contaminants you must test for are listed in Table 1 by their common chemical name. Remember that many chemicals are commonly known by several different names. Reference the Chemical Abstract Service (CAS) Registry numbers in Table 1 to ensure your chosen laboratory tests your waste for the correct contaminants.

Reminder: Carefully check the units in which your laboratory reports your test results and make sure they match the units for the values in Table 1. If they do not match, you will need to convert the units from your laboratory report. Your laboratory or the MPCA can assist you with this conversion.

**If the results for either the solids or liquids exceed the maximum threshold for any of these contaminants, the waste may not be land applied.** See the *More information* section of this fact sheet to contact your nearest MPCA staff for guidance in disposing of this waste.

## Land applying trap and holding tank waste

Note: Where records are required, all parties who handle this waste must each maintain the records.

Before land applying trap or holding tank waste, notify the county and township where the waste will be land applied according to their individual notification procedures. Comply with all applicable county and township land use ordinances regarding land application.

Operate the land application site under all of these guidelines:

- MPCA wastewater guidance document #wq-wwists4-20, [Septage and Restaurant Grease Trap Waste Management Guidelines](http://www.pca.state.mn.us/publications/wq-wwists4-20.pdf), available at <http://www.pca.state.mn.us/publications/wq-wwists4-20.pdf>.
- MPCA petroleum remediation guidance document #c-prp3-17, [Thin Spreading Small Quantities of Petroleum Contaminated Soil](http://www.pca.state.mn.us/publications/c-prp3-17.pdf), available at <http://www.pca.state.mn.us/publications/c-prp3-17.pdf>; however, no approval from MPCA staff is needed.
- Do not land apply trap or holding tank waste from November 1 through April 1.
- Do not land apply trap or holding tank waste at any other time if snow is on the ground.

Maintain the following records at both the generating facility and the hauler's office indefinitely:

- Identification of the site at which the trap or holding tank waste was generated, including the legal business name, location, mailing address, telephone number, and contact staff.
- A summary description of the process that generated the waste.
- Test results for the waste, including the sampling date and contact information for the laboratory that analyzed the waste.
- Identification of the hauler (and land applicator, if a separate party), including legal business name, mailing address, telephone number, contact staff, and applicable state license numbers.
- Documentation of notification to the county and township of the application site.
- Location of application site on United State Geological Survey (USGS) quadrangle or soil map.
- Date of the land application, total volume applied, and application rate in gallons per acre.

## Scope of this guidance document

The criteria and alternatives contained in this document should not be construed as a requirement of Rule or Statute, although some terms clarify existing Rules or Statutes. The MPCA may amend or revoke this document as conditions warrant. This document is not a final agency action, nor does it create any rights, duties, obligations, defenses, implied or otherwise for any third parties, nor does it act as a shield to any action against the party implementing the criteria and alternatives set forth herein.

## More information

Contact your nearest MPCA regional staff for your waste management questions.

### Minnesota Pollution Control Agency

Toll free (all offices) ..... 1-800-657-3864  
Brainerd ..... 218-828-2492  
Detroit Lakes ..... 218-847-1519  
Duluth ..... 218-723-4660  
Mankato ..... 507-389-5977  
Marshall ..... 507-537-7146  
Rochester ..... 507-285-7343  
St. Paul ..... 651-296-6300  
Willmar ..... 320-214-3786  
Website ..... <http://www.pca.state.mn.us>

### Small Business Environmental Assistance

Toll free ..... 1-800-657-3938  
Metro ..... 651-282-6143  
Website <http://www.pca.state.mn.us/sbeap>

### Minnesota Department of Health

Toll free ..... 1-888-345-0823  
Metro ..... 651-201-5000  
Website ..... <http://www.health.state.mn.us/>

**Table 1. Land application maximum thresholds (continued on next page)**

Note: Liquids do not need to be tested for contaminants marked with an asterisk \* in the last column.

Contaminant	CAS Registry Number	Solids maximum threshold (mg/kg)	Liquids maximum threshold (µg/L)
<b>Metals</b>			
Arsenic	7440-38-2	5.8	5000.0
Barium	7440-39-3	1684.0	2000.0
Cadmium	7440-43-9	8.8	4.0
Chromium	7440-47-3	36.2	100.0
Copper	7440-50-8	702.0	*
Lead	7439-92-1	100.0	5000.0
Mercury	7439-97-6	1.5	200.0
Molybdenum	7439-98-7	16.1	*
Nickel	7440-02-0	176.2	100.0
Selenium	7782-49-2	2.6	30.0
Silver	7440-22-4	7.9	30.0
Zinc	7440-66-6	3004.0	2000.0
<b>Organic compounds</b>			
Acetone	67-64-1	8.4	4000.0
Allyl chloride	107-05-1	0.2	30.0
Benzene	71-43-2	0.1	2.0
Bromochloromethane	74-97-5	0.3	*
Bromodichloromethane	75-27-4	0.1	6.0
Bromoform	75-25-2	0.1	40.0
Bromomethane	74-83-9	0.1	10.0
n-Butylbenzene	104-51-8	92.0	*
sec-Butylbenzene	135-98-8	70.0	*
tert-Butylbenzene	98-06-6	90.0	*
Carbon tetrachloride	56-23-5	0.1	1.0
Chlorobenzene	108-90-7	1.2	100.0
Chlorodibromomethane	124-48-1	0.1	10.0
Chloroethane	75-00-3	3000.0	*
Chloroform	67-66-3	0.1	30.0
Chloromethane	74-87-3	0.1	*
2-Chlorotoluene	95-49-8	436.0	*
1,2 Dibromoethane (EDB)	106-93-4	0.1	0.004
1,2 Dichlorobenzene	95-50-1	10.6	600.0
1,3 Dichlorobenzene	541-73-1	10.4	*
1,4 Dichlorobenzene	106-46-7	0.2	10.0

<b>Contaminant</b>	<b>CAS Registry Number</b>	<b>Solids maximum threshold (mg/kg)</b>	<b>Liquids maximum threshold (µg/L)</b>
1,2 Dichloroethane	107-06-2	0.1	1.0
cis-1,2 Dichloroethene	156-59-2	0.2	50.0
1,2 Dichloropropane	78-87-5	0.1	5.0
1,3 Dichloropropane	542-75-6	0.1	2.0
Dibromomethane	74-95-3	1860.0	*
Dichlorodifluoromethane	75-71-8	36.7	700.0
1,1 Dichloroethane	75-34-3	0.4	4.0
trans-1,2 Dichloroethene	156-60-5	0.4	40.0
1,1 Dichloroethene	75-35-4	1.4	200.0
Ethyl ether	60-29-7	0.5	200.0
Ethylbenzene	100-41-4	1.0	50.0
Hexachlorobutadiene	87-68-3	0.1	1.0
Isopropylbenzene	98-82-8	9.5	300.0
Methyl Ethyl Ketone (MEK)	78-93-3	8.8	4000.0
Methyl Isobutyl Ketone (MIBK)	108-10-1	0.8	300.0
Methylene chloride	75-09-2	0.1	5.0
Naphthalene	91-20-3	4.5	70.0
n-Propylbenzene	103-65-1	93.0	*
Styrene	100-42-5	2.0	*
1,1,1,2 Tetrachloroethane	630-20-6	0.4	70.0
1,1,2,2 Tetrachloroethane	79-34-5	0.1	2.0
Tetrachloroethylene (Perchloroethylene)	127-18-4	0.1	5.0
Tetrahydrofuran (THF)	109-99-9	0.2	*
Toluene	108-88-3	2.5	200.0
1,2,4 Trichlorobenzene	120-82-1	0.2	4.0
1,1,1 Trichloroethane	71-55-6	55.7	9000.0
1,1,2 Trichloroethane	79-00-5	0.1	3.0
Trichloroethylene (TCE)	79-01-6	0.1	0.4
Trichlorofluoromethane	75-69-4	35.0	2000.0
1,2,3 Trichloropropane	96-18-4	0.3	0.003
1,1,2 Trichlorotrifluoroethane	76-13-1	5430.0	200,000.0
1,2,4 Trimethylbenzene	95-63-6	2.7	100.0
1,3,5 Trimethylbenzene	108-67-8	2.7	100.0
Vinyl chloride	75-01-4	0.1	0.2
Xylene (all isomers)	1330-20-7	130.0	300.0

Note: Liquids do not need to be tested for contaminants marked with an asterisk \* in the last column.

Values in this Table were derived from the Hazardous Waste Toxicity Characteristic Rule, from the Soil Reference Values and the Soil Leaching Values established by the MPCA, and from the Human Health-Based Water Guidance Table established by the Minnesota Department of Health as of June 11, 2013.

**Table 2. Best management practices for your shop**

If you...	then you should...
Use aerosol-dispensed solvents or degreasers	Clean parts over a drip pan, not the floor. Collect the waste. Use a self-contained parts washer to clean engine parts. Manage the used parts washer solvent properly. For more information on solvent-based parts washers, see MPCA hazardous waste fact sheet #w-hw4-43, <a href="http://www.pca.state.mn.us/publications/w-hw4-43.pdf">Solvent-based Parts Washers</a> , available at <a href="http://www.pca.state.mn.us/publications/w-hw4-43.pdf">http://www.pca.state.mn.us/publications/w-hw4-43.pdf</a> .
Change vehicle fluids (engine oil, brake fluid, etc)	Use drip pans under vehicles to collect fluids. Manage engine oil, brake fluid, and transmission fluid as used oil. For more information on used oil and related wastes, see MPCA hazardous waste fact sheet #w-hw4-30, <a href="http://www.pca.state.mn.us/publications/w-hw4-30.pdf">Managing Used Oil and Related Wastes</a> at <a href="http://www.pca.state.mn.us/publications/w-hw4-30.pdf">http://www.pca.state.mn.us/publications/w-hw4-30.pdf</a> .
Clean shop floors	Do not hose down your floors with water into a floor drain. Use drip pans to contain drips and leaks. Use dry sweeping compounds and dispose of the used compound appropriately. Dispose of sweeping compounds and other absorbents contaminated with fuels or used oil, such as floor dry, as used oil-related wastes.
Spill products or wastes	Clean up all spills immediately – even small ones. Notify the Minnesota Duty Officer at 612-649-5451 or 800-422-0798 for any spill that may be released to the environment of used oil, hazardous material, or hazardous waste, or more than five gallons of petroleum. Maintain appropriate spill equipment and train employees how to use it. For more information on emergency equipment, see MPCA hazardous waste fact sheet #w-hw1-08a, <a href="http://www.pca.state.mn.us/publications/w-hw1-08a.pdf">Plan for Emergencies: Emergency planning for very small quantity generators</a> , available at <a href="http://www.pca.state.mn.us/publications/w-hw1-08a.pdf">http://www.pca.state.mn.us/publications/w-hw1-08a.pdf</a> .
Store solvents	Keep product containers closed. Store solvents in a fire-resistant 'flammables' cabinet with integral containment or equivalent enclosure. Use solvents over a drip pan. Do not use solvents near drains or over open ground.
Store waste fluids	Keep waste containers closed. Ensure that no waste could reach a drain or the environment if the largest waste container you have leaked its entire contents. Inspect waste containers weekly. For more information on storing hazardous wastes, see MPCA hazardous waste fact sheet #w-hw1-04-05, <a href="http://www.pca.state.mn.us/publications/w-hw1-04-05.pdf">Label and Store Hazardous Waste</a> , available at <a href="http://www.pca.state.mn.us/publications/w-hw1-04-05.pdf">http://www.pca.state.mn.us/publications/w-hw1-04-05.pdf</a> .
Wash vehicles	Do not wash engines outside of parts washers. Post signs prohibiting engine and undercarriage washing by employees and customers. Do not discharge to surface waters, such as through stormwater drains. Degrease engine components in a parts washer. Manage the used parts washer solvent or solution properly. For more information on managing parts washer wastes, see MPCA hazardous waste fact sheets #w-hw4-43, <a href="http://www.pca.state.mn.us/publications/w-hw4-43.pdf">Solvent-based Parts Washers</a> , at <a href="http://www.pca.state.mn.us/publications/w-hw4-43.pdf">http://www.pca.state.mn.us/publications/w-hw4-43.pdf</a> , and #w-hw4-44, <a href="http://www.pca.state.mn.us/publications/w-hw4-44.pdf">Aqueous-based Parts Washers</a> , at <a href="http://www.pca.state.mn.us/publications/w-hw4-44.pdf">http://www.pca.state.mn.us/publications/w-hw4-44.pdf</a> .