



Infectious Waste

Guidance for on-site treatment

What is infectious waste?

Infectious waste is waste that poses an environmental danger due to its *biological* risk. **Pathological** waste also poses a *biological* risk and is regulated the same as infectious waste in Minnesota. Both are different from **hazardous** waste, which poses an environmental danger due to its *chemical* risk. All three types of waste are regulated by the Minnesota Pollution Control Agency (MPCA).

Dual waste is a term-of-convenience used by the MPCA to describe waste that is both infectious and hazardous, such as contaminated sharps that still contain pharmaceuticals.

For a detailed discussion of what is and isn't regulated as infectious waste in Minnesota, see MPCA fact sheet #w-sw4-30, [Infectious Waste – Management guidance for generators](http://www.pca.state.mn.us/publications/w-sw4-30.pdf), at <http://www.pca.state.mn.us/publications/w-sw4-30.pdf>.

Who else in addition to the MPCA regulates infectious waste?

This document provides guidance only on MPCA requirements under Minnesota infectious waste statutes and rules found in Minnesota Statutes, § Chapter 116, and Minnesota Rules, Chapter 7035. Infectious waste may also be regulated as:

- Regulated waste, also known as *biohazardous waste*, under the Federal Bloodborne Pathogens Standard (BBP) found at 29 CFR 1910.1030 and administered by the Minnesota Department of Labor and Industry, Occupational Safety & Health Division (MNOSHA).
- Regulated Medical Waste (RMW) under the Federal Hazardous Materials Regulations (HMR) found at 49 CFR 173.134, administered by the U.S. Department of Transportation (DOT).

Who may treat infectious waste in Minnesota?

Only businesses or government agencies certified by the MPCA as commercial infectious waste treatment facilities may treat infectious waste that they did not generate. See MPCA fact sheet #w-sw4-32, [Infectious Waste – Management guidance for storage and decontamination facilities](http://www.pca.state.mn.us/publications/w-sw4-32.pdf), at <http://www.pca.state.mn.us/publications/w-sw4-32.pdf> for more information on certification requirements.

Generators of infectious waste may treat their own infectious waste, either at the site where it was generated or another site they own or operate. Generators do not need to be certified to treat their own waste. How generators may manage their infectious waste after they treat it depends on whether the waste contains sharps:

- **Infectious waste that does not contain sharps.** You may treat your own infectious waste that does not contain sharps and, after verifying that the waste has been decontaminated, dispose of it as normal trash. No MPCA review or approval is needed.
- **Infectious waste that contains sharps.** You may treat your own infectious waste that contains sharps, but you must still manage and dispose of it equivalent to a fully regulated infectious waste unless the treatment system has been approved by the MPCA and you follow all the conditions of the approval. A list of on-site treatment systems approved by the MPCA is available in MPCA fact sheet #w-sw4-34, [Infectious Waste – Approved waste management vendors and systems in Minnesota](http://www.pca.state.mn.us/publications/w-sw4-34.pdf), at <http://www.pca.state.mn.us/publications/w-sw4-34.pdf>.

Who may treat dual waste on-site?

Generators may also treat dual waste, such as infectious waste containing unevaluated or hazardous waste pharmaceuticals or laboratory wastes, in a container at their site. In addition to the infectious waste treatment requirements discussed in this fact sheet, the generator must ensure that:

- The treatment method will be performed in a completely closed container or preapproval is obtained from the generator's hazardous waste regulator.
- The waste has been chemically or physically changed to render it non-hazardous under Minnesota hazardous waste rules.
- The generator reports the original volume of the untreated waste to its hazardous waste regulator.

Note: On-site treatment systems claiming to 'inactivate' pharmaceuticals may not actually render those wastes non-hazardous or allow them to be disposed into the trash. Dilution of hazardous waste and evaporation of liquids other than water are not allowed hazardous waste treatment methods. **Do not dispose of treated pharmaceutical or dual waste into the normal trash unless you have specifically evaluated the treated waste as non-hazardous yourself.**

For more information on evaluating your pharmaceutical waste, see MPCA fact sheet #w-hw4-45a, [Evaluating Pharmaceutical Wastes](http://www.pca.state.mn.us/publications/w-hw4-45a.pdf), at <http://www.pca.state.mn.us/publications/w-hw4-45a.pdf>.

What about Ebola-contaminated waste?

The MPCA will allow Ebola-contaminated waste to be managed by generators equivalent to other regulated infectious wastes without additional requirements.

The DOT has previously considered that Ebola-contaminated waste that has been decontaminated on-site is no longer subject to additional restrictions during transport off-site. However, final determination on any specific case can only be made by the DOT. Contact the DOT with any questions regarding transportation of Ebola-contaminated wastes.

How are on-site infectious waste treatment systems approved?

Generators using an on-site infectious waste treatment system approved by the MPCA do not need to notify or seek further approval from the MPCA. A list of on-site treatment systems approved by the MPCA is available in MPCA fact sheet #w-sw4-34, [Infectious Waste – Approved waste management vendors and systems in Minnesota](http://www.pca.state.mn.us/publications/w-sw4-34.pdf), at <http://www.pca.state.mn.us/publications/w-sw4-34.pdf>.

Generators must maintain a copy of the system's MPCA approval and conditions in the site's infectious waste management plan. For more information about a generator's requirement to maintain an infectious waste management plan, see MPCA fact sheet #w-sw4-30, [Infectious Waste – Management guidance for generators](http://www.pca.state.mn.us/publications/w-sw4-30.pdf), at <http://www.pca.state.mn.us/publications/w-sw4-30.pdf>.

Generators may seek approval of their own on-site treatment processes using the same procedure as manufacturers and distributors.

Manufacturers or distributors of on-site treatment systems for infectious waste containing sharps may request approval of their systems by submitting the information specified in this fact sheet in electronic or hard copy format. The MPCA does not provide or require a standardized application form. Contact the MPCA to identify the current infectious waste review staff. Do not send equipment or components to the MPCA. There is no application fee.

All information submitted is considered public data unless the applicant does all of the following:

- Requests that specific information in the application remain nonpublic.
- Identifies the particular statutory grounds allowing the specified information to remain nonpublic.
- Demonstrates how the specified information meets the eligibility criteria of the statutory grounds.

What are the approval standards for on-site sharps treatment systems?

On-site treatment systems for infectious waste that contains sharps may be approved by the MPCA under either of two standards:

1. Systems that decontaminate the waste and prevent exposure during transportation and disposal.

An example is a system that treats the waste and then seals the treated waste in puncture-proof containers that are secured from the time of treatment until final disposal. Waste treated by this type of system must be transported by an infectious waste transporter registered with the MPCA. The waste must be transported to a solid waste disposal facility that has approved this waste in its Industrial Solid Waste Management Plan. The transporter and disposal facility must be identified in the generator's infectious waste management plan. A list of registered infectious waste transporters is available in MPCA fact sheet #w-sw4-34, [Infectious Waste – Approved waste management vendors and systems in Minnesota](http://www.pca.state.mn.us/publications/w-sw4-34.pdf), at <http://www.pca.state.mn.us/publications/w-sw4-34.pdf>.

***Criteria for systems that prevent exposure during transportation and disposal**

For systems that prevent exposure during transportation and disposal, submit a description of how the system will enclose the waste continuously from decontamination through transportation and disposal or otherwise prevent exposure to the public and employees of the generator site, transporter, and disposal facility.

2. Systems that decontaminate the waste and make sharps within the treated waste physically unable to puncture skin.

An example is a system that would finely grind or melt the sharps themselves. Another example is a system that encases the sharps in a material that prevents them from being exposed despite any type of compacting, crushing, or crumbling reasonably expected during solid waste handling. Waste treated by this type of system may be managed as or mixed with standard industrial solid waste, suitable for any disposal or processing allowed for general industrial wastes from the generator site.

***Criteria for systems that make sharps unable to puncture skin**

For systems that make sharps physically incapable of puncturing skin, submit a description of the physical treatment process. In addition:

- If the system finely grinds or melts the sharps, submit documentation verifying that the sharps are made incapable of piercing human skin during normal handling of solid waste, including handling at the generator facility, by a waste transporter, and hand-sorting after compacting, crushing, and hammer-mill shredding.
- If the system encases the sharps in a solid material or encloses them in a permanently sealed container, submit documentation verifying the integrity of the encased mass or sealed container and the resistance of that mass or container to the compacting, crushing, crumbling, or hammer mill shredding that is reasonably expected during solid waste handling. Sharps either must not be exposed on the exterior of the mass or container following such impact, or, if exposed, should not be detachable or able to penetrate human skin.

***Criteria for all systems**

All proposed systems must describe how the system either prevents inadvertent or reasonably-expected deliberate misuse by the operator or ensures that the treated waste is successfully treated despite such error or misuse. Examples of reasonably-expected deliberate misuse could include filling containers above specified fill lines, not adding enough reactant, or running-manually timed cycles for insufficient durations.

How long are system approvals valid?

System approvals are valid until revoked by the MPCA. Approvals remain valid for continued use and secondary market sales even if the systems are not currently being manufactured or directly marketed. Systems using a similar process or method to approved systems are not automatically approved.

More information

Guidance and requirements in this fact sheet were compiled from Minnesota Statutes, Chapter § 116, and Minnesota Rules, Chapter 7035, and incorporates regulatory interpretation decisions made by the MPCA on May 21, 2010; September 20, 2010; April 15, 2011; May 3, 2011; March 8, 2012; February 5, 2015; and February 10, 2015. Visit the Office of the Revisor of Statutes at <https://www.revisor.mn.gov/pubs> to review statutes and rules.

For more information on hazardous and dual waste, see the MPCA hazardous waste publications website at <http://www.pca.state.mn.us/waste/pubs/business.html>. Free, confidential, non-enforcement compliance assistance is also available from the MPCA's Small Business Environmental Assistance Program (SBEAP).

Address questions regarding the BBP to MNOSHA. Address questions regarding the Federal HMR to the U.S. DOT or Minnesota DOT. Immediately report all releases of infectious waste to the environment to the Minnesota Duty Officer.

Minnesota Pollution Control Agency

Toll free (outstate only)..... 1-800-657-3864
Metro 651-296-6300
Website <http://www.pca.state.mn.us>

Minnesota Technical Assistance Program

Toll free (outstate only)..... 1-800-247-0015
Metro 612-624-1300
Website <http://www.mntap.umn.edu/>

Small Business Environmental Assistance Program

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

Minnesota Duty Officer

Toll free (statewide) 1-800-422-0798
Metro 651-649-5451

Minnesota OSHA

Toll free (statewide) 1-800-342-5354
Metro 612-284-5005
Website.... <http://www.dli.mn.gov/mnosha.asp>

Minnesota Department of Transportation

Hazardous materials 651-215-6330
Website..... <http://www.dot.state.mn.us/cvo/>

U.S. Department of Transportation

Hazardous materials 1-800-467-4922
Website.... <http://www.phmsa.dot.gov/hazmat>