



Infectious Waste

Management guidance for generators

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).

Some wastes can be simultaneously infectious and hazardous, such as the contents of containers holding both sharps and pharmaceuticals. The MPCA refers to such wastes by the term-of-convenience **dual waste**. When handling dual waste, comply with both infectious and hazardous waste requirements.

Who else regulates infectious waste?

This document is intended to provide guidance only on requirements under Minnesota Infectious Waste Statutes and Rules found at Minnesota Statutes, Chapter § 116, and Minnesota Rule, Chapter 7035, administered by the MPCA. Infectious waste may also be regulated as:

- Regulated waste, also known as **biohazardous** waste, under the Federal Bloodborne Pathogens (BBP) standard found at 29 CFR 1910.1030 and administered by the Minnesota Department of Labor and Industry, Occupational Safety and 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)

The BBP and HMR may also regulate wastes that are not included in the Minnesota definition of infectious waste. For example, the HMR regulates all animal-generated veterinary waste, while infectious waste includes only veterinary sharps. Although this document does not discuss other regulations, generators of infectious waste must meet all applicable requirements. See [More information](#) on page 6.

What wastes are infectious wastes in Minnesota?

In Minnesota, **infectious** waste includes the following wastes generated by a regulated infectious waste generator. (See [Table 2](#) on page 3 for details of who is and who isn't a regulated infectious waste generator.)

- Liquid blood or regulated body fluids from humans or research animals
- Wastes that will release blood or regulated body fluids when compressed
- Contaminated sharps from human or any animal use
- Live or attenuated human and zoonotic vaccines
- Infectious cultures and contaminated laboratory items used to manipulate those cultures

Pathological waste includes human body parts or tissue (except teeth) removed and intended for disposal. Pathological waste must be managed in Minnesota the same way as infectious waste.

Regulated body fluids: Fluids that are not normally released from the body are infectious wastes. Solids that will release these body fluids when compressed are also infectious wastes. Liquids that normally are released from the body are not infectious wastes unless overtly contaminated with regulated body fluids or suspected to contain the Ebola virus. You may manage wastes containing only non-infectious liquids as normal solid wastes. See [Table 1](#) on the next page for a list of regulated and unregulated body fluids.

Table 1: Regulated body fluids that are infectious waste and other liquids that are not infectious wastes*

Regulated body fluids	Non-infectious liquids*
blood, including serum and plasma	breastmilk
cerebrospinal fluid	tears
synovial fluid	mucus
pleural fluid	saliva
pericardial fluid	vomit
peritoneal fluid	urine
amniotic fluid	feces

*Unless suspected to contain the Ebola virus. See *What about Ebola-contaminated wastes?* below.

Contaminated sharps: any contaminated or potentially contaminated items from human or animal care that can induce sub-dermal inoculation, including, but not limited to needles, scalpel blades, pipettes, lancets, and glass or rigid vials that contained infectious agents. Unused needles, pipettes, and other items, or those used only in a sterile process are not contaminated sharps in Minnesota.

Note: Sharps with engineered sharps injury protection (SESIPs) remain regulated in Minnesota if contaminated or potentially contaminated. Manage infectious waste containing used SESIPs as you would any other infectious waste containing sharps.

What about Ebola-contaminated wastes?

Wastes contaminated with the Ebola virus are also, admittedly confusingly, statutory hazardous wastes in Minnesota. However, the MPCA will allow materials known or suspected to contain external body fluids (including sweat, tears, mucus, saliva, vomit, urine, and feces) from a person subsequently diagnosed with the Ebola virus that exhibited a fever and diarrhea, vomiting, or unexplained bleeding when the materials were used to instead be managed equivalent to infectious waste. Materials from a person who exhibited only a fever and none of these other symptoms when the materials were used are normal solid wastes.

What else is *not* infectious waste?

Blood-stained items that will not release blood or body fluids when compressed: Infectious waste does not include minor dressings (adhesive bandages, wraps, pads), bedding (sheets, pillows, mattresses), nor furniture (couches, cushions), that are blood-stained but will not reasonably release liquid blood or body fluids when compressed. You may manage these items as normal solid waste. However, some businesses voluntarily choose to manage them as infectious wastes due to public perception or to minimize waste sorting.

Teeth: Teeth are not infectious waste in Minnesota. Teeth that are returned to the patient or patient’s family are also not waste regulated under the BBP. Both the U.S. Occupational Safety & Health Administration (OSHA) and the American Dental Association (ADA) have clarified that dentists may return teeth to patients or patients’ families without violating any of these requirements. Unless they are returned to the patient or family, the MPCA recommends collecting teeth containing amalgam for mercury reclamation.

For more information about amalgam recycling, see MPCA fact sheet #w-hw4-62, [Managing Universal Wastes](http://www.pca.state.mn.us/publications/w-hw4-62.pdf), at <http://www.pca.state.mn.us/publications/w-hw4-62.pdf>.

Organs or other tissue released to patients: Infectious waste in Minnesota does not include organs or other tissue returned to a patient or patient’s family for cultural or religious reasons upon specific request, such as a placenta or liver section. To protect the health of the patient, family, and public, the MPCA recommends that a healthcare provider ensure all of the following:

- The return is not prohibited by any superseding public health order or local ordinance.
- The patient is informed of any potential pathogen known or reasonably suspected to be carried in the organ or tissue, including but not limited to chorioamnionitis, bacteremia, human immunodeficiency virus, hepatitis B, hepatitis C, hemorrhagic fever, and transmissible spongiform encephalopathy.

- The patient is informed whether the organ or tissue has been chemically treated or preserved.
- The patient is counseled that chemically treated organs or tissue should not be consumed.
- The patient is informed about safe handling (similar to raw meat) of the organ or tissue, such as hand-washing and packaging, and refrigeration if it will be consumed.
- The organ or tissue is packaged in an appropriate leak-proof container.
- The packaged organ or tissue is clearly labeled with its contents and the patient's identification but is not labeled as an infectious or pathological waste.

Who is a regulated infectious waste generator?

Table 2: Regulated infectious waste generators in Minnesota

Fully regulated infectious waste generators

Businesses or government agencies whose business activities generate an infectious or pathological waste, unless exempted.

Examples: hospitals, medical clinics, dentists, veterinarians (including farm veterinarians), tattoo and piercing studios, mortuaries, trauma cleanup services

Partially exempt regulated infectious waste generators

Specified business or government agency entities that manage their infectious waste through a licensed Minnesota hospital. See [Specific generator requirements](#) on page 5.

Includes only: Licensed ambulance services, public and private preschools and K-12 schools, eligible public health agencies

Exempt infectious waste generators*

The following sites and businesses are not regulated infectious waste generators and their waste is exempt from MPCA infectious waste requirements and may instead be managed as household sharps:

- Households
- Farms and agricultural businesses (not including veterinarians)
- Sites that provide sharps collection containers for employee, customer, or public use
- Sites that find infectious waste in employee, customer, or public areas or vehicles during cleaning
- Sites that only generate infectious waste from an employee, customer, or public incident
- Residential care facilities with a maximum capacity of six residents

Examples: livestock operations, offices buildings, gas stations, hotels, rest stops, car rental services

*Though exempt from MPCA requirements, any of these sites may still be regulated under the BBP or HMR. See MPCA fact sheet #w-hhw4-67, [Household Hazardous Waste: Safe Disposal Options for Needles and Syringes](#), at <http://www.pca.state.mn.us/publications/w-hhw4-67.pdf> for guidance on disposal of household sharps.

Managing infectious waste

Planning

If you are a regulated infectious waste generator, prepare and maintain an **Infectious Waste Management Plan** and update it at least every two years. Keep a copy of the plan at your site. Ensure your plan includes:

- Name and address of the generating facility
- Types of infectious or pathological wastes generated
- Collection, storage, transport, and disposal methods used for infectious wastes
- Packaging and labeling of infectious wastes
- Transporters and disposal facilities used for infectious wastes
- BBP exposure control plan, or the steps you have taken to minimize potential employee exposure

- Name of the individual responsible for implementation of the management plan
- Amount of infectious and pathological waste generated in the previous two years

Do not submit a copy of your plan to the MPCA except in response to an explicit request. The Minnesota Department of Health (MDH) no longer reviews plans or issues acknowledgment cards.

On-site storage

In general, storage requirements at the site of generation are regulated under the BBP; however, the MPCA requires that the storage methods used, including packaging and labeling, are described in your infectious waste management plan. Comply with your management plan.

Disposal

The four allowed disposal methods for regulated infectious waste in Minnesota are discussed in detail below:

1. Decontaminate your site's infectious waste at that site
2. Discharge liquid infectious waste to a sanitary sewer or subsurface treatment system
3. Transport your own infectious waste to another site for decontamination
4. Ship your infectious waste to another site for decontamination using a Commercial Infectious Waste Transporter registered with the MPCA, or mail it to a disposal facility with the U.S. Postal Service

1. Decontaminate your site's infectious waste at that site

Decontaminate means to treat an infectious or pathological waste to make it safe to manage as a normal solid waste. Decontamination must be verified by standard biological indicators, such as *Geobacillus stearothermophilus* and *Bacillus atrophaeus* spores. Simply enclosing an infectious waste within a container or binding it into a matrix is not decontamination.

You may decontaminate your own infectious waste and manage it as a normal solid waste without MPCA approval as long as the waste does not contain sharps.

If your waste contains sharps, you may only use an on-site decontamination system approved by the MPCA, and you must comply with the specified conditions of that approval. MPCA fact sheet #w-sw4-34, [Infectious Waste – Approved waste management vendors and systems](http://www.pca.state.mn.us/publications/w-sw4-34.pdf), at <http://www.pca.state.mn.us/publications/w-sw4-34.pdf> provides a list of approved decontamination systems.

For more information regarding on-site treatment, see MPCA fact sheet #w-sw4-33, [Infectious Waste – Management guidance for on-site treatment](http://www.pca.state.mn.us/publications/w-sw4-33.pdf), at <http://www.pca.state.mn.us/publications/w-sw4-33.pdf>.

2. Discharge liquid waste to a sanitary sewer or subsurface treatment system

You may discharge liquid infectious and dual waste to a public sanitary sewer system provided you both:

- Notify the operator of the receiving sanitary sewer system.
- Comply with any discharge limits or prohibitions set by the sanitary sewer system operator.

You may discharge liquid infectious waste (but not dual waste) to a septic system provided you both:

- Notify the U.S. Environmental Protection Agency (EPA) you are operating a Class V injection well.
- Comply with all EPA discharge limits and prohibitions for a Class V injection well.

Do not discharge dual waste, hazardous waste, or unevaluated pharmaceuticals to a septic system.

3. Transport your own infectious waste to another allowed site

You may transport your own infectious waste to either of the following:

- Another site you operate in order to consolidate or decontaminate the waste
- A certified infectious waste storage or decontamination facility

- (only) If your site is a partially exempt regulated infectious waste generator, to a licensed hospital. (See [Specific generator requirements](#) on page 5 for eligibility conditions for this option.)

MPCA fact sheet #w-sw4-34, [Infectious Waste – Approved waste management vendors and systems](#), at <http://www.pca.state.mn.us/publications/w-sw4-34.pdf> provides a list of certified infectious waste storage and decontamination facilities.

4. Ship or mail your infectious waste

If you ship or mail your infectious waste off site, ensure:

- You use only an infectious waste transporter registered with the MPCA
- Employees who prepare infectious waste for shipment have been trained under the HMR
- Your infectious waste is packaged and labeled in compliance with the HMR or U.S. Postal Regulations

MPCA fact sheet #w-sw4-34, [Infectious Waste – Approved waste management vendors and systems](#), at <http://www.pca.state.mn.us/publications/w-sw4-34.pdf> provides a list of registered infectious waste transporters.

Specific generator requirements

Hospitals

Hospitals must accept infectious waste, properly packaged to the hospital's own standards, from:

- Licensed ambulance services
- Public school health services
- Eligible boards of health, community health boards, and public health nursing agencies

Hospitals may also, but are not required to, accept:

- Properly packaged infectious waste from private school health services
- Properly labeled and packaged dual or hazardous waste from licensed ambulance services

Hospitals voluntarily accepting the above two waste streams are not considered off-site commercial storage facilities and may manage such waste as their own; however, they must accept or reject these wastes from all similar entities equally. Hospitals may charge a reasonable fee for handling the wastes.

Licensed ambulance services

Ambulance services may dispose of their infectious and dual waste at the receiving hospital or transport the waste back to their operations base for consolidation and disposal.

Public and private school health services

Public and private preschool and K-12 school health services are exempt from regulation as infectious waste generators if they dispose of their properly packaged infectious waste at a hospital; however, they may be subject to the BBP.

Eligible boards of health, community health boards and public health agencies

These public entities are eligible for exemption from regulation as infectious waste generators if they are located in a county with a population less than 40,000 and they dispose of their properly packaged infectious waste at a hospital.

Home health care services

Residential health care services with six residents or less and all visiting in-home services may dispose of infectious and dual waste generated in the residence as exempt household waste at the residence with the

approval of the resident. Alternatively, these services may transport the waste back to their operations base for consolidation and disposal. In both cases, home health care and residential services must prepare and maintain an infectious waste management plan.

See MPCA fact sheet #w-hhw4-67, [Household Hazardous Waste: Safe Disposal Options for Needles and Syringes](http://www.pca.state.mn.us/publications/w-hhw4-67.pdf), at <http://www.pca.state.mn.us/publications/w-hhw4-67.pdf> for household sharps disposal guidance.

Household sharps collection

Any business or government agency site may collect household sharps for proper disposal without MPCA approval or being considered an off-site infectious waste storage facility. In addition, the MPCA will consider you exempt from any potential hazardous waste liability or requirements from pharmaceuticals or other wastes inadvertently collected with such sharps, provided you do all of the following:

- Do not accept sharps from businesses or government agencies
- Notify customers, such as by posting a sign at the collection site, that accepted containers must hold only household sharps and no waste pharmaceuticals
- Segregate collected household sharps from the site's own waste until the wastes are shipped off site

Note: Many counties now accept household waste pharmaceuticals for proper disposal through their sheriff's department or designated drop-boxes. Contact your county environmental department for locations.

More information

Guidance and requirements in this fact sheet were compiled from Minnesota Statutes, Chapter § 116, and Minnesota Rules, Chapter 7035, and incorporate 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 available from the MPCA's Small Business Environmental Assistance Program (SBEAP). The Minnesota Technical Assistance Program (MnTAP) can assist you to identify and implement waste reduction strategies for your business.

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 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>