



INFECTIOUS WASTE: Basics for Public Health Professionals

Minnesota Pollution Control Agency

Industrial Division

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**Minnesota Pollution
Control Agency**

MPCA; Waste-related Publications

<http://www.pca.state.mn.us/index.php/waste/waste-publications/waste-publications.html>

What is Infectious Waste?

MPCA SW#4.30; Infectious Waste for Generators

<http://www.pca.state.mn.us/publications/w-sw4-30.pdf>



Infectious Waste: Regulation



- Infectious Waste/Pathological Waste (IW)

- MPCA

- ☒ Infectious Waste Statutes & Rules

- Regulated Waste (BBP)



- MNOSHA

- ☒ Bloodborne Pathogens Standard

- Regulated Medical Waste (RMW)

- Mn/DOT

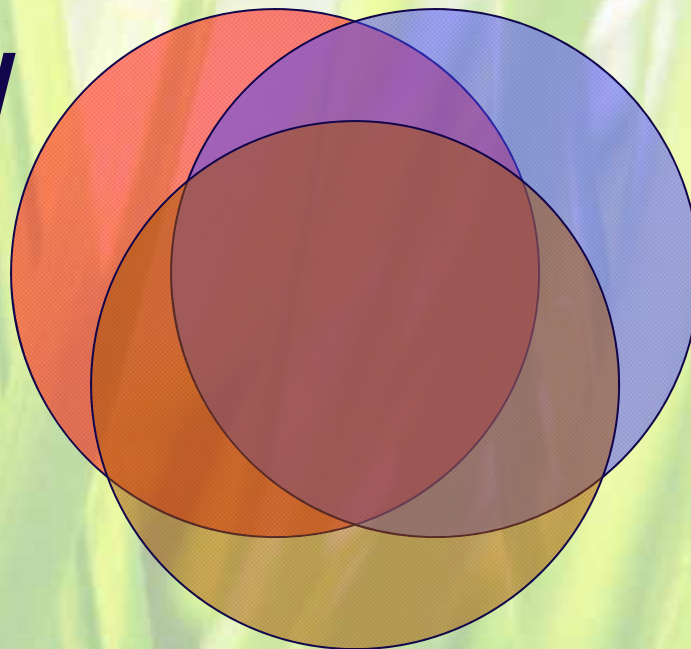
- ☒ Hazardous Materials Regulations



Infectious Waste: Regulation



IW



BBP osha

RMW



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MPCA SW#4.30; Infectious Waste for Generators

<http://www.pca.state.mn.us/publications/w-sw4-30.pdf>

Infectious Waste: Identification

- Business/government-generated:
 - Sharps
(syringes, scalpels, hard pipettes, live vaccine vials)



*includes veterinary sharps



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Minn. R. 7035.9110; Infectious Waste Definitions

<https://www.revisor.mn.gov/rules/?id=7035.9110>

Infectious Waste: Identification

- Business/government-generated:

- Liquid human blood/body fluids...

- + 'involuntary fluids'

- (blood, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid)*

- ≠ 'voluntary fluids', unless overtly contaminated with above
(urine, feces, vomit, saliva)

- * not regulated but recommended
(semen, vaginal fluid)



Infectious Waste: Identification

- Business/government-generated:

- Liquid blood/body **fluids**...

- † drip freely or when reasonably manually compressed



- ≠ dried or fully absorbed and not releasable



Infectious Waste: Identification

- Business/government-generated:
 - Medical laboratory waste
(infectious cultures, soft pipettes, live vaccines...)



Vaccines

Live

Most live vaccines are attenuated

- MMR* **(and combinations)*
- Varicella*
- LAIV (FluMist)
- Zoster
- Rotavirus
- Yellow Fever
- Typhoid (oral)
- Polio (oral)
- Tuberculosis
- Smallpox

Infectious Waste

Killed or Inactivated

- Tetanus* **(and combinations)*
- Diphtheria*
- Pertussis*
- Hepatitis A
- Hepatitis B
- Hib
- Inactivated Influenza
- HPV
- Meningococcal
- Pneumococcal
- Japanese Encephalitis
- Rabies
- Polio (injection)
- Typhoid (injection)
- Lyme disease
- Anthrax

Non-infectious Waste

CDC; List of Vaccines Used in United States

<http://www.cdc.gov/vaccines/vpd-vac/vaccines-list.htm>



Vaccines: Hazardous Waste

- Non-infectious waste vaccines may be 'RCRA' hazardous waste
 - empty containers (vials/syringes) exempt
 - thimerosal preservative (mercury-based)
 - ⊗ DtaP, Dt, Td, TT
 - ⊗ Hep A
 - ⊗ Hep B
 - ⊗ Influenza (injectable multidose)
 - ⊗ Japanese encephalitis
 - ⊗ Meningococcal



Infectious Waste: MPCA Regulation

- Household/Farm
 - Exempt from MPCA regulation
 - Disposal options
 - ☒ Needle destruction device
 - ☒ Mail-back
 - ☒ Puncture-proof container into trash
 - ☒ Collection program/site...



Infectious Waste: MPCA Regulation

- Household/Farm Sharps Collection
 - Programs scarce
 - MPCA Policy (draft)
 - ☒ Exempt from RCRA liability IF
 - ☒ Safeguards implemented:
 - ★ Accept only from households
 - ★ Post/Provide notice prohibiting pharmaceuticals
 - ★ Store separate from on-site-generated sharps
 - ☒ Recommend regulated disposal after collection
 - No MPCA list



Infectious Waste: Management

- Storage

- comply with BBP containers & labeling



- may be stored with other wastes

Infectious Waste: Management

- Transport - Who?
 - Self-transport
 - Non-profit cooperative
 - MPCA-Registered Commercial Transporter



Infectious Waste: Management

- Transport - Where?
 - Generator owned/operated facilities
 - Other MPCA-Registered Transporters
 - MPCA-Certified Storage/Decontamination facilities*
 - ☒ Out-of-MN facilities approved by respective state



Infectious Waste: Management

■ Transport - Where*

□ Health agencies may transport to hospital

- ⊗ Licensed ambulance services
- ⊗ Public/private school health services ‡
- ⊗ Boards of health ‡
- ⊗ Community health boards ‡
- ⊗ Public health nursing agencies ‡

‡ Hospitals **must** accept from public schools and boards /agencies from counties <40,000; **may** accept from other counties & private schools
(*draft policy*)



Infectious Waste: Management

- Storage facilities

- All storage >48hrs off-site must be MPCA-Certified
 - ☒ Government storage facilities <100 pounds exempt from financial assurance



MPCA SW#4.32; Infectious Waste for Facilities

<http://www.pca.state.mn.us/publications/w-sw4-32.pdf>



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Infectious Waste: Management

- Decontamination/Disposal
 - On-site by generator
 - ☒ + Sharps requires MPCA approval
 - ☒ ≠ Sharps ≠ approval



Infectious Waste: Management

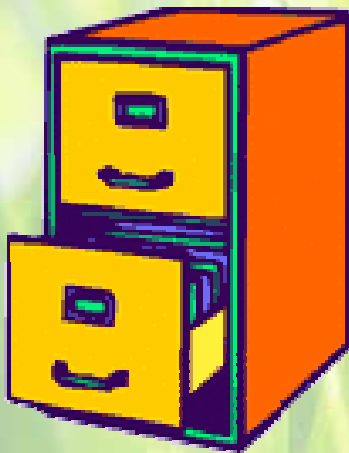
- Decontamination/Disposal
 - Off-site at MPCA/Other State-Certified facility
 - ☒ Incineration (1)
 - ☒ Autoclave (4+)
 - ☒ Alternate technologies (0)



Infectious Waste: Management

- Recordkeeping

- No MPCA/MDH licensing/reporting
- Infectious Waste Management Plan



- ✓ Specific generating facility identification
- ✓ Sources of generation
- ✓ Storage procedures
- ✓ Disposal method & facility
- ✓ 2 years disposal records
- ✓ Update ≥ 2 years



Infectious Waste: Civil Enforcement

- MPCA & Counties

- Any county (not just Metro)
 - ☒ *MPCA requests notice of County enforcement*
- May directly enforce Infectious Waste Statutes
- May also pass & enforce County Ordinance
 - ☒ County Ordinances can *not* be more strict



Compliance Resources



Electronic copies of this presentation and all other MPCA Healthcare Hazardous Waste Presentations available at no cost



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MPCA Regional Offices

<http://www.pca.state.mn.us/about/regions/index.html>