



Disposal of Waste Medications Collected from Residents by Municipalities and Other Organizations

Municipalities may generate waste medications at their facilities (e.g., municipally-owned hospitals, public school nurses' offices, etc.). In addition, many municipalities and other organizations have established or are considering establishing a program for collecting waste medications from residents. In both cases, waste medications must be managed to prevent their release into the environment.

What medications need special handling when they are discarded?

Many medications do not need special handling when they are discarded. However, two regulations apply to specific medications or the chemical compounds from which they are made:

- Medications that are regulated as “controlled substances”¹ by the U.S. Drug Enforcement Administration (DEA) and the Massachusetts Department of Public Health (DPH), which generally have a potential for abuse and physical or psychological dependence (including narcotics, stimulants, depressants, and anabolic steroids), and all other prescription drugs.
- Medications that are made from chemicals that are regulated “hazardous wastes” when they are disposed of. These contain one or more commercial chemical products that are:
 - > Listed specifically by the U.S. Environmental Protection Agency as a “P” (acutely toxic) or “U” (toxic) waste², or
 - > Are *ignitable* (e.g., solutions containing more than 24 percent alcohol), *corrosive* (e.g., they contain strong acids such as glacial acetic acid or strong bases such as sodium hydroxide), *reactive* (such as nitroglycerine) and/or *toxic* (e.g., depending on the concentration, medications containing arsenic, barium, cadmium, chloroform, chromium, lindane, m-cresol, mercury, selenium or silver).

Please note that some of the medications that meet the criteria for classification as “hazardous waste” may also be regulated “controlled substances.”

Disposal Requirements

- Waste medications generated at municipal facilities should be managed in accordance with the rules and guidance applicable to business and institutional generators of this waste stream. See the separate MassDEP fact sheet: *Disposal of Waste Medications by Businesses & Institutions*
- If a municipality or another organization collects discarded medications from residents (either through a one-day event or a collection site that allows residents to drop off unwanted medications over a longer period of time), the collected

¹ These are listed in the schedules of the Controlled Substances Act and Title 21 of the Code of Federal Regulations, sections 1308.11–1308.15 and in Massachusetts General Laws chapter 94C and 105 Code of Massachusetts Regulations 700.000.

² The U.S. Environmental Protection Agency estimates that there are approximately 31 chemical compounds on the “P” and “U” hazardous waste lists that are used in pharmaceutical preparations. Please note that a particular compound may be used in multiple brand name pharmaceuticals. For example, several chemotherapy drugs (CTX, Cytotoxan, Neosar, and Procytox) all contain cyclophosphamide, which is a U-listed hazardous waste when discarded. Examples of pharmaceutical compounds that are also hazardous wastes can be found at <http://www.h2e-online.org/hazmat/pharma.html#listed> and http://www.practicegreenhealth.org/private/library_resource/376 and http://www.dep.state.fl.us/waste/quick_topics/publications/shw/hazardous/WastePharmListLetter12_07.pdf

medications that need to be managed as hazardous waste and/or controlled substances must be identified and managed appropriately. DEA and DPH currently require that only law enforcement officials may take custody of returned controlled substances (which include all prescription drugs).

To aid in identifying the appropriate disposal rules, collection programs should require that any discarded medications be dropped off in their original pharmacy container. Residents should scratch out any personal identifying information on the prescription label to make it unreadable (this will help to protect the privacy of the participating residents and their personal health information), but should not scratch out the medication's name, which will be needed for the program to determine how the medication must be managed.

- A collection program that accepts discarded medications that are classified as "hazardous waste" must register with MassDEP as a "household hazardous waste collection event or center," and comply with all of the associated storage, record keeping, and disposal requirements that are specified in *310 CMR 30.390 Special Provisions for Accumulation of Household Hazardous Waste and/or Hazardous Waste*. Collected medications that are classified as hazardous waste must be managed in accordance with the Massachusetts hazardous waste rules.

The requirements for household hazardous waste collection sites (see MassDEP's web site at <http://www.mass.gov/dep/service/regulations/310cmr30.pdf>) include:

- > Notifying MassDEP about a scheduled collection event (e.g., a one-day collection) or submitting an application to MassDEP to operate a collection center (that will accept waste medications over a longer period of time) before the program starts (please note that applications for a new collection center are considered to be approved when MassDEP receives them);
- > Using a licensed hazardous waste transporter and following proper manifesting procedures to ship the collected pharmaceuticals material to a licensed hazardous waste disposal facility;
- > Properly securing and delineating the area in which hazardous waste medications will be stored, and ensuring that they are stored in impermeable containers and on surfaces with proper spill containment so that discarded medications cannot be released into the environment;
- > Having proper emergency response procedures in place to respond to a spill; and
- > Submitting annual reports to MassDEP.

MassDEP allows collected medications that are not classified as "hazardous waste" to be disposed of as "solid waste", but DEA/DPH requirements for "controlled substances" apply to any medications that are regulated by these agencies (including any prescription drugs).

Massachusetts municipal waste combustors are allowed to accept pharmaceutical wastes for disposal if the facility has obtained a Special Waste Permit in accordance with 310 CMR 19.000 before it accepts these wastes, or if the municipality has obtained a waiver of the household hazardous waste collection requirements from MassDEP (described below).

MassDEP offers a waiver of the requirements that apply to household hazardous waste collection for waste medication collection events and permanent kiosks that:

- Collect waste medications only (no other household hazardous wastes such as waste oil or paint thinner), or, if waste medications are being collected in

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conjunction with a community Household Hazardous Waste Collection Event, you must completely segregated the waste medications from other collected material;

- Accept waste medications only from residents (businesses that generate waste medications need to comply fully with the Massachusetts Hazardous Waste Management Regulation); and
- Dispose of all collected waste medications at a permitted Massachusetts solid waste facility (please note that destruction of discarded medications in a mobile incinerator is not allowed in Massachusetts).

A waiver must be obtained before you hold your collection event or start operation of a permanent kiosk. To obtain a waiver, download and complete the appropriate application form at <http://www.mass.gov/dep/toxics/ppc.htm#wastemed> and mail it to: Paul Walsh, MassDEP Bureau of Waste Prevention, DEA Waivers, One Winter Street, 7th Floor, Boston, MA 02108. Or, you may create a PDF of the signed form (or scan the signed form) and email it to: paul.h.walsh@state.ma.us.

If your waiver application is complete, you will receive an approval letter by email.

If you do not obtain a waiver for your collection event, you will need to either:

- Comply with MassDEP's household hazardous waste collection regulation described above, OR
- Refuse to accept medications containing a compound that is regulated as "hazardous waste" (the footnote on p. 1 of this fact sheet provides links to sources of information about which chemical compounds are regulated as hazardous waste).

If you do not take one of these steps, your solid waste disposal facility will not be able to accept wastes from your collection event. Disposal facilities that accept non-hazardous waste medications that are regulated as "controlled substances" must comply with the requirements of DPH and DEA for disposal of any controlled substances.

Summary of Requirements for Medication Disposal by Municipalities			
Determine which regulations apply to the discarded medication		Is the medication a "controlled substance"?	
		Yes	No
Is the medication a "hazardous waste" (either listed specifically or due to a characteristic)?	Yes	Meet both MassDEP hazardous waste AND DEA/MA DPH requirements	Meet MassDEP hazardous waste requirements
	No	MassDEP allows disposal in trash. Must also meet DEA/MA DPH requirements	Place in trash

Managing empty containers that held medications classified as "hazardous waste":

- Empty containers that held medications that are classified as "acutely hazardous waste" must be triple-rinsed before the container can be disposed of in trash. Water or other solvents used to rinse these containers must be collected and managed as "hazardous waste." Any inner liner that came into contact with the medication must be managed as "hazardous waste."

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- Blister packs that contained medical nitroglycerin or “EpiPens” and syringes that were used to deliver epinephrine to a patient are the only exceptions to this rule. These containers may be disposed of in trash with no need for rinsing.

For More Information

About the effects of medications that are released into the environment:

- MassDEP Pharmaceuticals & Personal Care Products page:
<http://www.mass.gov/dep/toxics/ppc.htm#research>

About hazardous waste management requirements:

- Massachusetts Hazardous Waste Management Regulations (310 CMR 30.000):
<http://www.mass.gov/dep/recycle/laws/regulati.htm#hw>
- Examples of pharmaceutical compounds that are hazardous wastes:
<http://www.h2e-online.org/hazmat/pharma.html#listed> and
http://www.practicegreenhealth.org/private/library_resource/376 and
http://www.dep.state.fl.us/waste/quick_topics/publications/shw/hazardous/WasteP_harmListLetter12_07.pdf
- MassDEP guidance for schools on managing discarded epinephrine (syringes and “EpiPens”):
<http://www.mass.gov/dep/recycle/compliance/factguid.htm#hwm>
- MassDEP Regional Office for your community if you have questions about registering a municipal household hazardous waste collection center:
<http://www.mass.gov/dep/about/region/findyour.htm>
- MassDEP requirements for managing hazardous wastes and for shipping them to facilities that are licensed to dispose of them:
<http://www.mass.gov/dep/recycle/hazardous/generati.htm>
- MassDEP list of licensed hazardous waste transporters:
<http://www.mass.gov/dep/recycle/hazardous/transpor.htm>
- Waivers of the MassDEP household hazardous waste collection event requirements: Paul Walsh, MassDEP Bureau of Waste Prevention (email: paul.walsh@state.ma.us, telephone: 617/556-1011)

About controlled substances:

- Massachusetts regulations governing “controlled substances” (105 CMR 700.000):
http://www.mass.gov/?pageID=eohhs2terminal&L=5&L0=Home&L1=Government&L2=Laws%2c+Regulations+and+Policies&L3=Department+of+Public+Health+Regulations+%26+Policies&L4=Regulations+by+CMR+Number&sid=Eeohhs2&b=terminalcontent&f=dph_regs_700_799&csid=Eeohhs2
- Drug Control Program at the Massachusetts Department of Public Health provides information about proper management of controlled substances (including prescription drugs). Telephone: (617) 983-6700 Fax: (617) 524-8062 Email: dcp.dph@state.ma.us Website: <http://www.mass.gov/dph/dcp>
- U.S. Drug Enforcement Administration, New England Field Division: 617/557-2100

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