

Guidelines for Household Pharmaceutical Waste Collection Programs



Department for Environmental Protection

May 2017

REGULATORY GUIDANCE

Collecting and Disposing of Household Pharmaceutical Waste

The Kentucky Department for Environmental Protection (DEP) offers the following guidance regarding the proper collection and disposal of household pharmaceutical waste. Household pharmaceutical waste must always be managed in a manner that prevents a release into the environment.

Collection Centers For Household Pharmaceutical Waste

Collection centers of household pharmaceutical waste are not required to register with the Division of Waste Management as a hazardous waste generator, solid waste transfer station or a convenience center provided the following management practices are met:

1. Only pharmaceuticals from households may be accepted at the collection center. This includes pharmaceuticals collected from residents of long-term care facilities.
2. Pharmaceuticals from commercial or industrial locations or institutions such as pharmacies, hospitals, clinics and doctor's offices may not be accepted at the collection center.
3. Collected household pharmaceutical waste may not be mixed with any other hazardous waste. To prevent the possibility of becoming subject to additional environmental requirements, it is recommended that you do not mix collected household pharmaceuticals with any other waste stream, including confiscated pharmaceuticals, contraband or evidence.



REGULATORY GUIDANCE, CONT.

Disposal Options for Collected Household Pharmaceutical Waste

Contained Landfills

DEP strongly encourages household pharmaceutical collection programs to dispose of household pharmaceutical waste in a solid waste-contained landfill. Because most solid waste-contained landfills are not permitted to accept bulk liquid waste, you should solidify any liquids over one quart in volume before disposal.

To solidify waste, mix 1 part liquid to 2 parts kitty litter, sawdust, sand or any other inert material in a large container prior to transport and disposal in the landfill.

Flushing

DEP strongly discourages the disposal of household pharmaceutical waste via flushing. Wastewater treatment plants are not designed to remove pharmaceutical contaminants. These contaminants pass through to Kentucky's water resources and have the potential to impact human health and the environment.

Open Burning

Open burning of collected household pharmaceutical waste is prohibited. While open burning of confiscated marijuana is allowed under state open burning regulations, this does not apply to confiscated drugs that are nonvegetative, such as pills, liquids, etc.

Incineration Via a Permitted Incinerator

It is illegal to burn or incinerate collected household pharmaceutical waste in an unpermitted incinerator. Collected household pharmaceutical waste can be disposed of in a permitted hazardous waste incinerator or in a permitted solid waste incinerator, provided that the incinerator has permission to accept household pharmaceutical waste. Human and animal crematoriums are classified as incinerators.



RESOURCES

The Department for Environmental Protection (DEP) encourages entities to contact their solid waste coordinator when establishing and operating a household pharmaceutical waste collection program.

A list of all solid waste coordinators and DEP-permitted, contained landfills can be found on the [Division of Waste Management website](#).

DEP Agency Contacts

Division of Compliance Assistance

300 Sower Boulevard
First Floor
Frankfort, KY 40601
502-564-0323 (Telephone)
844-213-0549 (Fax)
Email: envhelp@ky.gov
www.dca.ky.gov

Division of Water

300 Sower Boulevard
Third Floor
Frankfort, KY 40601
502-564-3410 (Telephone)
502-564-4245 (Fax)
Email: water@ky.gov
www.water.ky.gov

Division for Air Quality

300 Sower Boulevard
Second Floor
Frankfort, KY 40601
502-564-3999 (Telephone)
844-213-0333 (Fax)
Email: roberta.burns@ky.gov
www.air.ky.gov

Division of Waste Management

Solid Waste Program &
Recycling and Local Assistance
300 Sower Boulevard
Second Floor
Frankfort, KY 40601
502-564-6716 (Telephone)
502-564-4245 (Fax)
Email: waste@ky.gov
www.waste.ky.gov

DEA Contacts

DEA Office Locations

Lexington, KY 859-977-6100
London, KY 606-862-4500
Louisville, KY 502-582-5908
Madisonville, KY 270-821-6899



BEST MANAGEMENT PRACTICES

The following are best management practices guidelines for the proper operation of a household pharmaceutical collection program. These are in addition to the regulatory requirements of KY DEP.

1 Collection centers should work closely with the Drug Enforcement Administration (DEA) to ensure compliance with DEA regulations. The collection center must be an Authorized Collector with DEA. A brief overview is given below:

- The collection center should use a secure collection container to prevent theft and any release of collected household pharmaceutical waste to the environment.
- The collection center should provide proper oversight of collection containers (may include electronic surveillance) to prevent theft and ensure proper use of containers.

2 To avoid additional regulatory requirements

- Only the following items should be accepted at collection centers:
 - ◇ Prescription Medications (consumer should black out contact information)
 - ◇ Over-the-Counter Medications
 - ◇ Pet Medications
 - ◇ Medicated Ointments, Lotions and Creams
 - ◇ Liquid Medication in Plastic Containers
 - ◇ Vitamins
 - ◇ Inhalers
- The following items should not be accepted at collection centers:
 - ◇ Sharps: Needles and Syringes (may have separate collection location on-site)
 - ◇ Thermometers
 - ◇ Aerosol Cans
 - ◇ Medication Waste Items, such as IV Bags, Used Bandages, Empty Containers
 - ◇ Chemicals or Disinfectants
 - ◇ Personal Care Products
 - ◇ Pharmaceuticals from commercial or industrial locations or institutions, such as pharmacies and hospitals

BEST MANAGEMENT PRACTICES, CONT.

The following are best management practices guidelines for the proper operation of a household pharmaceutical collection program. These are in addition to the regulatory requirements of KY DEP.

- 3** Collected household pharmaceutical waste should not be mixed with any other hazardous waste or solid waste stream, such as confiscated pharmaceuticals or evidence.
- 4** The collection centers should provide clear signage at drop-off locations to ensure that only household pharmaceuticals are accepted.
- 5** The collection container should be lined with a plastic liner in order to prevent release to the environment and ensure easier transport to main accumulation container.
- 6** To prevent leachate (wastewater) contamination in the landfill, the collected pharmaceuticals should immediately be made nonrecoverable. Take the following precautions:
 - Dissolve all pharmaceuticals in water,
 - Solidify (kitty litter or sawdust),
 - Place solidified contents in a sealed container prior to transport and disposal in the landfill.
- 7** Collection centers should work with the Transportation Cabinet to ensure compliance with transportation regulations when transporting collected household pharmaceutical waste.
- 8** Collection centers should dispose of household pharmaceutical waste in a DEP/EPA-permitted disposal facility.
- 9** Collection centers should maintain records to show compliance with state and federal requirements. This may include:
 - Amounts of pharmaceuticals collected
 - Date of disposal
 - Location of disposal
 - Witness of disposal

INCINERATORS

Guidance on Obtaining DEP Permits for a Household Pharmaceutical Waste Incinerator

Prior to construction and operation of an incinerator for the purpose of disposing of household pharmaceutical waste, the owner/operator must obtain permits from the Division for Air Quality and the Division of Waste Management's Solid Waste program.

Incineration is not the preferred method of disposal for household pharmaceutical waste.

Division for Air Quality

1. The owner/operator of the incinerator must submit an air permit application to the Kentucky Division for Air Quality using the DEP 7007 series of air permit application forms, per 401 KAR 52:040.
2. The owner/operator must comply with 401 KAR 59:021 New Municipal Waste Incinerators when operating a solid waste incinerator.
3. The owner/operator must comply with 401 KAR 63:020 Potentially Hazardous Matter or Toxic Substances when selecting and operating a unit.
4. The owner/operator must comply with 401 KAR 59:010 New Process Operations for Particulate Matter Emissions when operating a unit.
5. The owner/operator of the incinerator must meet the standard of 40 CFR 60 Subpart EEEE for Other Solid Waste Incinerator Units:
 - ◇ Preconstruction siting analysis
 - ◇ Waste management plan
 - ◇ Operator training and qualification
 - ◇ Emission limitations and operating limits
 - ◇ Performance testing
 - ◇ Initial compliance requirements
 - ◇ Continuous compliance requirements
 - ◇ Monitoring
 - ◇ Recordkeeping and reporting

INCINERATORS, CONT.

Division of Waste Management

1. The owner/operator of solid waste incinerators must obtain a solid waste permit from the Kentucky Division of Waste Management.
2. Before the owner/operator submits a permit application to the Division of Waste Management, the proposed incinerator must receive a local determination from the local solid waste governing body of the county or counties in which the incinerator will be operated.
3. The ash resulting from the incineration of household pharmaceutical waste can be disposed of in a landfill providing it is not mixed with any hazardous waste.

ENFORCEMENT OF INCINERATORS

In the course of preparing this guidance, DEP became aware that there may be a small number of portable incinerators operating in the Commonwealth that are not adequately permitted. While the department does not have data that indicates these units are posing any harm to either human health or the environment, it is necessary for them to be properly authorized in compliance with environmental law.

Utilization of an incinerator to dispose of pharmaceutical wastes could increase the potential exposure and adverse impacts to human health and the environment. A unit that would meet the air emission requirements will require permitting, monitoring, and potentially costly controls. A facility seeking to establish a new incinerator or that has an existing Kentucky Division for Air Quality permitted incinerator and desires to use the unit for pharmaceutical waste disposal, is required to obtain authorization prior to the disposal of such wastes.

All household pharmaceutical waste incinerators must be permitted by the Division for Air Quality and the Division of Waste Management before they are constructed or operated. Owners/operators of existing non-permitted incinerators should cease all incineration of pharmaceutical waste until proper permits are obtained.