



Q and A – Drum-top Fluorescent Lamp Crushers

Introduction

Maryland’s hazardous waste regulations include provisions that allow the use of a device to crush “mercury-containing universal waste lamps”, such as fluorescent lamps, provided certain requirements are met. Several manufacturers market fluorescent lamp crushing devices that fit on top of a standard 55-gallon steel drum. The crushed lamps are collected in the drum, which becomes the shipping container.

This document provides details about Maryland’s regulatory requirements associated with the use of drum-top fluorescent lamp crushers. The information is presented in a question and answer format. Regulations from the Code of Maryland Regulations (COMAR) that are cited in this document may be found using the “COMAR Online” feature at the Maryland Division of State Documents website (<http://www.dsd.state.md.us/>).

The information in this document is specific to Maryland’s regulatory program. The requirements of other states’ programs may differ.

If you have questions that this document does not answer, please contact the Maryland Department of the Environment (MDE). Contact information is provided at the end of the document, in the answer to question 18.

Questions and Answers

1. What regulatory requirements apply to use of a drum-top fluorescent lamp crusher in Maryland?

Maryland’s regulations on “universal waste lamps” allow a person to use a device to crush fluorescent lamps if certain requirements are met. The specific requirements are found in the Code of Maryland Regulations (COMAR) at COMAR 26.13.10.15B(3).

2. What is meant by the term “universal waste”?

“Universal waste” is a category of hazardous waste under State and federal hazardous waste regulations for which alternate, simplified management standards have been developed. The universal waste category was established to facilitate collection and proper management of wastes that are not exclusive to a particular industry, are commonly generated by a wide variety of types of establishments, are generated by a large number of generators, and are frequently generated in relatively small quantities by each generator. Currently, Maryland regulations identify 5 categories of wastes as universal wastes: batteries, pesticides that are part of a collection program, mercury-containing equipment, lamps, and lamp ballasts that contain polychlorinated biphenyls (PCBs). Details are found in COMAR 26.13.10.06 – 26.13.10.09.



3. Does use of a drum-top lamp crusher require a permit?

Maryland’s universal waste regulations include provisions allowing the use of a device to crush universal waste lamps if certain conditions are met. The specific requirements are found at COMAR 26.13.10.15B(3), and include such things as requirements concerning the design of the crushing equipment, operating requirements, and a requirement to submit a notification to MDE that a device is going to be used to crush lamps. A person using a drum-top crusher to process universal waste lamps in accordance with COMAR 26.13.10.15B(3) would not have to obtain a hazardous waste treatment permit in connection with use of the crusher.

An exception is if the person operating the crusher is processing lamps from multiple generators. Then, the operator of the device would be considered a universal waste destination facility, triggering permit requirements for storage of lamps prior to processing, and a hazardous waste treatment permit requirement for the crusher unless the materials from the crushing operation are recycled.

4. What is the notification requirement for use of a lamp crusher?

Before a person may use a device to crush lamps, the person must provide a written notification to MDE in accordance with COMAR 26.13.10.15B(3)(j). The person making the notification is required to provide basic contact information and the manufacturer and model number of the lamp crusher. There is not a special form for this notification. A letter that includes the required information is all that is needed.

The person responsible for the site where the crusher will be operated (the “handler”) is required to provide MDE with the following information:

- the handler’s: name; address; telephone number; and EPA identification number, if any;
- the name of a contact person at the handler’s site where the crusher will be operated; and
- the manufacturer and model number of the device that will be used to crush universal waste lamps.

(Note: “EPA identification number” (EPA ID number) is a site-specific number assigned by MDE on behalf of the U.S. Environmental Protection Agency (EPA) to hazardous waste generators and large quantity universal waste handlers.)

5. Where should notifications of lamp crushing activity be sent?

A notification being made in accordance with COMAR 26.13.10.15B(3)(j) should be sent to:

Maryland Department of the Environment
Waste Diversion and Utilization Program
1800 Washington Blvd., Suite 610
Baltimore, MD 21230-1719

6. What are the penalties for failure to provide the required notification about use of a lamp crusher?

Failure to provide the required notification would be a violation of Maryland statutory requirements concerning controlled hazardous substances. Maximum civil penalties are specified in Section 7-266 of the Environment Article, Annotated Code of Maryland. The maximum penalty for a violation that could be assessed is \$25,000, to be collected in a civil



action, with each day a violation occurs considered to be a separate violation. If a penalty is assessed through an administrative action, the maximum penalty is \$25,000 for each violation, but not exceeding \$100,000 total. Criteria on which an administrative penalty is to be based are specified in Section 7-266(b)(2)(ii) of the Environment Article, Annotated Code of Maryland.

7. Can crushed lamps be managed as universal waste?

Maryland allows crushed lamps produced by a person operating a crusher in accordance with COMAR 26.13.10.15B(3) to still be managed as universal waste. However, some other states consider crushed lamps to not be eligible for management as universal waste. If the facility to which the crushed lamps are being sent is in a state that does not recognize crushed lamps as universal waste, the generator of the lamps will have to assure that the delivery of the crushed lamps to the destination facility is in accordance with the destination state's hazardous waste regulations.

Note that this could affect the hazardous waste generator status of the person who generates the waste lamps. That is, it could affect whether the person qualifies as a Maryland-defined "small quantity generator" of hazardous waste. Maryland-defined small quantity generators are subject to a reduced set of regulatory requirements with respect to any hazardous waste generated.

Ordinarily, universal waste is not counted for the purposes of determining the hazardous waste generator status. However, if the destination state for crushed lamps requires the crushed lamps to be managed as hazardous waste, and shipments of the lamps to the destination facility are accompanied by hazardous waste manifests, the crushed lamps would be counted as being hazardous waste generated. If 100 kilograms (220 pounds) or more of crushed lamps is shipped to that state in any calendar month, the generator would be required to file a notification with MDE as a hazardous waste generator, obtain an identification number (EPA ID Number), and file a biennial report of hazardous waste activity with MDE for shipments made in odd-numbered calendar years. (For more information on obtaining an identification number, see

<http://www.mde.state.md.us/programs/Permits/Documents/2008permitguide/WAS/2.16.pdf>)

Maryland would still allow crushed lamps that are viewed by a destination state as not being universal waste to be managed in accordance with the universal waste regulations while the crushed lamps are being accumulated in Maryland prior to shipment to the destination state.

8. Can crushed lamps from another state be sent to a Maryland facility?

If the state in which the crushed lamps are generated allows crushed lamps to be managed as universal waste, the crushed lamps could be sent as universal waste to a universal waste handler in Maryland. If the state in which the lamps are generated does not allow the lamps to be managed as universal waste, and the crushed lamps meet the definition of hazardous waste, a facility in Maryland could not accept the crushed lamps unless the facility has a hazardous waste facility permit that allows the facility to accept the waste. The crushed lamps would also be subject to the full set of Maryland's hazardous waste regulations rather than Maryland's universal waste regulations.



9. Is a person who operates a lamp crusher required to have an EPA ID Number?

Operation of a lamp crusher does not trigger a requirement to have an EPA ID number. However, the operator of a lamp crusher may need an EPA ID number for other reasons. For example, if a person generates hazardous waste and does not qualify as a Maryland-defined small quantity generator under COMAR 26.13.02.05, an EPA ID number is required. An EPA ID number is also required for large quantity handlers of universal waste (persons who accumulate, on site at any time during a calendar year, 5 thousand (5,000) kilograms or more of universal waste – see COMAR 26.13.10.19C.)

10. What standards apply to equipment used for lamp crushing?

Equipment used for lamp crushing is required to be capable of meeting a specified permissible exposure limit for mercury, and is required to meet certain standards regarding pollution control equipment. The specific requirements are found at COMAR 26.13.10.15B(3)(b)-(e).

11. What standards apply to the operation of lamp crushing equipment?

The operator is required to operate the device indoors, and develop and implement a written operating procedure that covers specified requirements. The specific requirements are found at COMAR 26.13.10.15B(3)(f)-(g).

12. What are the penalties for improper operation of a lamp crusher?

Operation of a lamp crusher in violation of the requirements in COMAR 26.13.10.15B(3) would be a violation of Maryland statutory requirements concerning controlled hazardous substances. Maximum civil penalties are specified in Section 7-266 of the Environment Article, Annotated Code of Maryland. The maximum penalty for a violation that could be assessed is \$25,000, to be collected in a civil action, with each day a violation occurs considered to be a separate violation. If a penalty is assessed through an administrative action, the maximum penalty is \$25,000 for each violation, but not exceeding \$100,000 total. Criteria on which an administrative penalty is to be based are specified in Section 7-266(b)(2)(ii) of the Environment Article, Annotated Code of Maryland.

13. Are any changes to the State's regulations on lamp crushers under consideration?

Consideration is being given to requiring periodic monitoring of mercury emissions from crushing equipment during use, but a decision has not yet been made. Consideration is also being given to clarifying the regulations with respect to limitations on acceptance of lamps from off-site for crushing.

14. How must spent filters from lamp crushers be managed?

A spent filter from a lamp crusher that is sent for reclamation of mercury is not considered a solid waste, and is consequently not subject to management as hazardous waste. It may be placed in the same container as crushed lamps being managed as universal waste if the crushed lamps are being sent for recycling, the recycling process that the crushed lamps will undergo will also reclaim mercury from the filter, and the facility to which the crushed lamps are being sent is allowed to accept the spent filter. If the spent filter is going to be disposed, it must be characterized as to whether it meets the definition of hazardous waste, and managed in accordance with applicable hazardous waste regulations. A filter that is going to be disposed may not be managed as a universal waste.



15. Can lamps be accepted from an off-site location for processing using a lamp crusher?

A person accepting lamps from off site locations for processing using a lamp crusher is considered a “destination facility” rather than a “universal waste handler”, and is potentially subject to hazardous waste permit requirements with respect to storage of lamps accepted from off-site before crushing and with respect to operation of the crusher.

16. How do the Maryland regulations concerning lamp crushing compare to federal regulations?

When EPA adopted federal universal waste regulations, EPA indicated in the preamble to the final rule that universal waste handlers would be prohibited from crushing lamps without a hazardous waste treatment permit. However, EPA also said that a state could adopt a regulatory program that allowed universal waste handlers to use lamp crushers without obtaining a hazardous waste treatment permit if the state regulatory program included additional provisions that resulted in crushing of lamps being as protective as an outright ban on the use of crushing equipment. Maryland’s regulations allowing crushing were developed in consultation with the Region 3 office of EPA, but EPA has not formally authorized Maryland’s regulations pending a determination on whether Maryland’s regulations need additional safeguards to be as protective as an outright ban on crushing. As a matter of State law, a person may use a crusher in accordance with the provisions of COMAR 26.13.10.15B(3).

17. Where can I find a copy of Maryland’s hazardous waste regulations?

Maryland’s hazardous waste regulations are found in the Code of Maryland Regulations at COMAR 26.13.01 through 26.13.10. These regulations may be viewed using the “COMAR Online” feature at the Maryland Division of State Documents website (<http://www.dsd.state.md.us/>).

18. What if I have questions about lamp crushers that are not addressed in this document?

Questions may be addressed to Ed Hammerberg of MDE’s Waste Diversion and Utilization Program at (410) 537-3356 or ed.hammerberg@maryland.gov.

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