

Ohio Hazardous Waste

Notifier

A Publication of Ohio EPA, Division of Hazardous Waste Management

New Hazardous Waste Rules Effective December 7, 2004

by Karen Hale, Regulatory Services Unit, DHWM

It's been more than two years since *Ohio EPA* began to develop and adopt new hazardous waste rules. Now the wait is finally over; the rule-making process is complete. The new rules will become effective on December 7, 2004. Once effective, these rules make Ohio EPA's hazardous waste rules equivalent to federal hazardous waste regulations through February 2002, with the exception of regulations on air emissions from hazardous waste management units. All of the new rules we adopted already exist under U.S. EPA's federal hazardous waste program; therefore, none of the rules are unique to Ohio.

In all, we adopted 393 hazardous waste rules. Of those rules, 103 are new rules and 48 are being rescinded. A total of 242 rules are being amended. Changes we are making to the amended rules include adding new requirements, changing language to make the rule equivalent to its federal counterpart rule, correcting rule cross-references to account for new and rescinded rules and removing references to the Hazardous Waste Facility Board.

Ohio EPA will be adopting 11 new hazardous waste regulatory programs. The regulatory programs include: military munitions, boilers and industrial furnaces (BIFs), universal wastes - hazardous lamps (e.g., mercury-containing lamps), post closure permitting, corrective action management units, landfill liners, new hazardous waste listings, expanded public participation, staging piles, extended accumulation period for F006 recycling and low level mixed waste. A short summary of each new regulatory program is given below.

Two of the regulatory programs we adopted increase the number of facilities subject to hazardous waste permitting under Ohio rules. The facilities impacted are those that burn hazardous waste in a boiler or industrial furnace for the purpose of energy recovery or metal recovery, and facilities where hazardous lamps are reclaimed. In Ohio, burning hazardous wastes in boilers and industrial furnaces has been regulated by U.S. EPA since 1992. Previously, hazardous lamps destined for recycling were excluded from regulation under the hazardous waste rules. On December 7, such lamps will be regulated under the universal waste rule.

Most of the new regulatory programs relax regulatory requirements that currently exist and reduce the regulatory burden on certain generators. These programs include military munitions, post closure permitting, staging piles, extended accumulation period for F006 recycling and the low-level mixed waste rule.

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1. Rules Governing the Burning of Hazardous Waste in Boilers and Industrial Furnaces (BIF rules)

These rules designate the regulatory difference between the burning of hazardous waste for legitimate energy recovery and metal recovery versus burning hazardous waste for destruction in industrial furnaces and boilers. In addition, the rules establish air emission limits for the devices that use hazardous waste derived fuels. Emission pollutants subject to stack testing and emission control are toxic organic compounds (including dioxins), toxic metals, hydrogen chloride, chlorine gas, carbon monoxide and particulate matter.

Owners/operators of facilities that burn hazardous waste fuels for energy recovery and some metal recovery facilities must obtain a hazardous waste permit from Ohio EPA. Currently, this rule affects five facilities.

2. Requirements for liners and leachate detection systems for hazardous waste land disposal units

These rules modify the existing double-liner and leachate collection and removal system requirements for new and replacement surface impoundments, waste piles and landfills, and for lateral expansions of these units. New units and lateral expansions of existing units must have double liners consisting of a top liner designated to prevent the migration of hazardous constituents into the liner during the life and post-closure period, and a composite bottom liner consisting of a geomembrane and a low-conductivity soil layer.

This rule impacts very few facilities.

3. Expanded Public Participation Rules

These new rules serve to promote public participation during the permitting process of hazardous waste treatment, storage or disposal facilities. The new process provides earlier opportunities for public involvement and expands public access to information throughout the permitting process and the operational lives of the facilities.

4. New Hazardous Waste Listings

In Ohio, there may be one or two chemical manufacturing facilities that generate one of the *newly listed hazardous wastes*. Owners/operators of Ohio hazardous waste treatment, storage or disposal facilities who want to accept any of these newly listed hazardous wastes must submit a permit modification to Ohio EPA by January 5, 2005.

K174: Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer

K175: Wastewater treatment sludges from the production of vinyl chloride monomer

K176: Baghouse filters from the production of antimony oxide

K177: Slag from the production of antimony oxide

K178: Residues from the manufacturing and storage of ferric chloride from acids formed during the production of titanium dioxide

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5. Corrective Action Management Units (CAMU):

The *CAMU rule* is revised to include minimum requirements applicable to the treatment of CAMU-eligible remediation wastes prior to disposal in a CAMU, and design and operating standards for CAMUs. Also, as an effort to further encourage cleanups, this rule establishes alternative treatment standards for hazardous CAMU-eligible wastes that are disposed of at off-site permitted hazardous waste landfills.

6. Military Munitions

These rules clarify when unused conventional and chemical military munitions become a waste under the hazardous waste program and provide for the safe storage and transport of such wastes.

Waste munitions are exempt from the traditional hazardous waste rules pertaining to storage and transportation if they are stored and transported in accordance with the specific requirements given in these rules. Waste munitions are not exempt from hazardous waste treatment and disposal requirements.

Also, this rule exempts all immediate emergency response activities to threats involving munitions and explosives from regulation under the hazardous waste program. Previously, emergency response activities involving the detonation of munitions and explosives were subject to hazardous waste permitting requirements.

This rule reduces the regulatory impact on several Department of Defense sites in Ohio and potentially every emergency response team.

7. Post closure permit requirement and closure process

This rule modifies the requirement to obtain a post-closure permit for non-permitted land disposal units. Ohio EPA can use several mechanisms to impose requirements on non-permitted land disposal units by requiring post-closure care in lieu of obtaining a hazardous waste permit. Such mechanisms include a post-closure plan or the use of orders.

In addition, for all facilities, the rules governing the closure of land-based units that have released hazardous constituents are modified to allow the closure of certain units to be addressed through the corrective action program. This will reduce the potential for confusion and inefficiency created by the application of two different regulatory requirements (i.e., closure and corrective action) at the same facility.

8. Staging piles for the purposes of cleanup

Staging piles are a new type of waste management unit. They can only be used for the management of remediation wastes for the purposes of implementing cleanups, closures and corrective action. A staging pile can only be used for the storage (which includes preparation activities such as mixing, blending and sizing) of remediation wastes prior to its on-site treatment or transport off-site for treatment or disposal. Also, the use of a staging pile must be approved by the overseeing agency through either a permit, closure plan or orders, and cannot be used for longer than 2.5 years.

9. Universal Waste - Hazardous Waste Lamps

These rules designate hazardous lamps (e.g., fluorescent bulbs) as a universal waste. They change Ohio EPA's present interpretation that hazardous lamps destined for recycling are not defined as a waste and not subject to regulation under the hazardous waste rules.

Previously, in Ohio, lamp recyclers were not required to obtain a hazardous waste storage permit, and generators and owners/operators of hazardous lamp collection sites were not subject to hazardous waste management standards. However, when the rules are effective,

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generators and collection sites (i.e., handlers) will be subject to regulation under the universal waste rules for hazardous lamps destined for recycling. Recyclers of hazardous lamps will be subject to full regulation under the hazardous waste rules and required to obtain a hazardous waste storage permit.

This rule will affect every generator of hazardous lamps who recycles its lamps, including conditionally exempt small quantity generators.

10. 180-day accumulation time for wastewater treatment sludges from the treatment of electroplating wastewaters (F006) destined for reclamation

Under this exclusion, large quantity generators of F006 may accumulate their F006 waste for up to 180 days without obtaining a hazardous waste storage permit, provided the generators meet certain conditions. This rule is meant to provide incentives to promote metals recovery from F006 rather than treatment and disposal of the waste.

The conditions include:

- A. Implementation of pollution prevention practices;
- B. Recycle F006 by metals recovery;
- C. Accumulate no more than 20,000 kilograms of F006 at one time; and
- D. Comply with the current management standards for tanks, containers and containment buildings for large quantity generators.

11. Conditional exemption for low-level radioactive waste mixed with hazardous waste

There are *two conditional exemptions* from the definition of hazardous waste for certain radioactive waste that is mixed with hazardous waste. The first exemption applies to the on-site storage and/or treatment of low-level radioactive waste mixed with hazardous waste (LLMW) by the generator. The other exemption applies to the transportation of LLMW and naturally occurring and/or accelerator-produced radioactive material (NARM) that is mixed with hazardous waste and is being sent to an off-site disposal facility regulated by NRC (or an NRC-Agreement state). Note that NARM does not include hazardous waste mixed with high level radioactive waste or transuranic waste. LLMW and NARM wastes are currently subject to regulation under the hazardous waste rules and rules implemented by the Nuclear Regulatory Commission (NRC) (or an NRC-Agreement state). The rules aim to reduce duplicative regulation of LLMW and NARM.

These exemptions will impact NRC licensees which include mostly universities, hospitals and research facilities. Department of Energy (DOE) facilities are not eligible to use the exemption for the extended on-site storage and/or treatment of LLMW by the generator.

12. Imports and Exports of Hazardous Waste

Also, we made changes to *the rules* pertaining to the import and export of hazardous waste. However, more importantly, we want to ensure that you are aware that there are rules governing the import/export of hazardous waste which are enforced by U.S. EPA. Ohio EPA will not adopt the rules because they cannot be delegated to a State.

U.S. EPA's rules cover the import/export of hazardous waste and the shipment of hazardous waste to certain countries for recovery. The rules include definitions of terms, general requirements, special manifesting requirements, notification, recordkeeping and annual reporting. The import/export rules are contained in *40 CFR 262.50 to 262.60*. The rules pertaining to the export of hazardous waste for recovery are located in *40 CFR 262.80 to 262.89*.



Dilution of Metal Bearing Wastes Prohibited

by Lindsay Brown, Regulatory Services Unit

Generators and fuel blenders should be aware of the rule prohibiting the dilution of certain metal-bearing hazardous wastes by burning them in an incinerator, boiler or furnace. The dilution prohibition for combustion of metal bearing wastes rule can be found in Ohio Administrative Code (OAC) rule [3745-270-03\(C\)](#). This rule is part of the larger set of Land Disposal Restrictions found in OAC Chapter 3745-270.

When is combustion considered dilution?

Combustion is incineration or burning as a fuel. Combustion is considered impermissible dilution when the hazardous waste being combusted is comprised of inorganic materials. These hazardous wastes are listed in the appendix to OAC rule 3745-270-03. The rule allows for some exceptions to this prohibition. These exceptions are:

- If the waste contains hazardous organic constituents or cyanide at levels exceeding the constituent-specific treatment standard in OAC rule [3745-270-48](#);
- If the waste consists of organic, debris-like materials (e.g., wood, paper, plastic or cloth) contaminated with an inorganic metal-bearing hazardous waste;
- If the waste, at the point of generation, has reasonable heating value such as greater than or equal to 5,000 British thermal unit (Btu) per pound;
- If the waste is co-generated with wastes for which combustion is a required method of treatment;
- If the waste is subject to federal and/or state requirements necessitating reduction of organics (including biological agents); or
- If the waste contains greater than one per cent total organic carbon.

Keep in mind that it is permissible to blend fuels to generate a higher Btu in a metal-bearing hazardous waste that is listed in the appendix to OAC rule 3745-270-03. The rule specifically states that the dilution prohibition applies at the point of hazardous waste generation or after bona fide treatment. Therefore, blending fuels to increase the Btu value prior to combustion is considered impermissible dilution.

What is dilution?

Dilution, in the most general sense, is the addition of water or soil to hazardous waste to reduce the concentration of hazardous constituents within the waste. The practice of dilution, however, does not reduce the overall load of toxic chemicals that could be released into the environment. Several common examples of impermissible dilution as defined by the dilution prohibition rule are:

- the addition of soil and/or water to a waste;
- combining wastes not amenable to the same types of treatment; and
- incinerating metal wastes.

If you have any questions, please contact the DHWM's [Regulatory Services Unit](#):

Ohio EPA
[Division of Hazardous Waste Management](#)
Regulatory Services Unit
Phone: (614) 644-2917
Fax: (614) 728-1245

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New Rule Exempts Transportation of Certain Wastes from Manifesting and Transporting Requirements

by Jeff Mayhugh, Supervisor, Regulatory Support Unit, DHWM

On December 7, 2004 a new rule will be effective that will allow a person to transport hazardous waste along a road to contiguous property without using a manifest and without complying with Ohio Administrative Code (OAC) rule [3745-52-32\(b\)](#) or the transporter rules in OAC chapter [3745-53](#), except for OAC rules [3745-53-30](#) and [3745-53-31](#) concerning the discharge of hazardous waste on a public or private right-of-way.

The waste can be transported on a public or private right-of-way within or along the border of contiguous property under control of the same person even if the property is divided by a public or private road.

You should be aware that this rule does not change the definition of "on-site" that is in OAC rule [3745-50-10](#). That definition states that a property is on-site if it is the same or geographically contiguous property that may be divided by a public or private road if the entrance and exit between the divided property is accessed by crossing the road and does not require traveling along the road. Since OAC rule [3745-52-34](#) only exempts generators from the requirement to obtain a permit for storing or treating hazardous waste **on-site**, any generator who chooses to transport his hazardous waste along a road to another part of his property would have to obtain a hazardous waste permit for the divided property or comply with the transfer facility requirements of OAC rule [3745-53-12](#).



New Lamp Rules

Reformatted by Rose McLean, Regulatory Services Unit, DHWM

Lamps will be regulated under Ohio's universal waste rules (UWR) on December 7, 2004. In addition to adding lamps to the UWR, we have clarified in the definition of "lamp" (OAC rules [3745-50-10](#)) and the definition of "spent material" (OAC rule [3745-51-01](#)) that we now consider used lamps to be spent materials when they are recycled. This means that Ohio will no longer consider spent lamps to be characteristic by-products and, according to OAC rule [3745-51-02](#), they will be wastes when they are reclaimed.

Previously, hazardous lamps that were *used* and were being recycled were considered characteristic by-products. Hazardous lamps that were *not used* and were being recycled were considered commercial chemical products. Characteristic by-products and commercial chemical products that are being reclaimed are not regulated as wastes and therefore would not be considered hazardous waste. Used and unused lamps that were being *disposed of* would have to have been evaluated in accordance with Ohio Administrative Code (OAC) rule [3745-52-11](#).

With this new rule change, lamps are now defined as "spent materials" and will be a waste even when reclaimed. Generators of hazardous waste lamps have the option of handling their lamps as either hazardous waste or universal waste.

Managing hazardous lamps according to the universal waste rules eases certain regulatory requirements otherwise imposed on generators of spent lamps. However, the universal waste rule prohibits universal waste handlers from crushing hazardous lamps. If you are the generator of hazardous lamps and you are presently crushing your lamps, and want to continue to do so, you will be required to manage your lamps according to the hazardous waste rules (OAC Chapter [3745-52](#)).

It is important to note that under the universal waste rule, a handler must store universal waste lamps in containers or packages that prevent breakage and they must manage lamps in a way that prevents the release of any component of the lamp to the environment. This in effect *prohibits a universal waste handler from crushing lamps*.

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If you are the generator of hazardous waste lamps and you want to continue to crush them, you must manage them as hazardous waste. This means that you must comply with OAC rule [3745-52-34](#) when managing your lamps, and you must send your crushed lamps to a permitted hazardous waste facility. This can be a universal waste destination facility. You cannot send your crushed lamps to an unpermitted universal waste handler. The crushed lamps must be transported by a registered hazardous waste transporter to a permitted hazardous waste facility under a hazardous waste manifest.

While some commercially available lamp crushers are designed to control mercury emissions when properly maintained, please be aware that due to the unique properties of mercury there is still a high potential of exposure to harmful mercury vapors when you crush your lamps.



Regenerate Your Spent Activated Carbon

by Dan Sowry, Regulatory Services Unit

Ohio EPA's Division of Hazardous Waste Management has adopted U.S. EPA's definition of "[carbon regeneration units](#)." Ohio EPA's new regulatory definition, which becomes effective on December 7, 2004, states that a carbon regeneration unit is any thermal treatment device used to regenerate spent activated carbon. Owners and operators of thermal treatment units used to treat hazardous waste are required to have a hazardous waste installation and operation permit. If you plan to send spent activated carbon that is listed or exhibits the characteristic of a hazardous waste for regeneration, you may be required to send it to a facility permitted for such activity. If you regenerate your hazardous spent activated carbon filters at your facility, you may need to obtain a [permit](#) from Ohio EPA's Division of Hazardous Waste Management ([DHWM](#)).

Ground water remediation and wastewater treatment systems are two types of operations that commonly generate spent activated carbon filters. Spent activated carbon filters derived from the treatment of hazardous waste in such operations can also be hazardous waste when discarded [see Ohio Administrative Code (OAC) rule [3745-51-03\(C\)\(2\)\(a\)](#)]. For example, if your spent activated carbon filters were used to treat ground water that contains a listed hazardous waste from a remediation project, then those filters become a listed hazardous waste when discarded.

If you, however, generate spent activated carbon filters that only exhibit a characteristic of a hazardous waste from a wastewater treatment operation or air pollution control device (such as an air stripper at a groundwater remediation operation), they would meet the definition of a characteristic sludge. A sludge is defined in OAC rule [3745-50-10\(A\)\(104\)](#) as any solid, semisolid or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant. Sludge that exhibits a characteristic of a hazardous waste and is reclaimed (regenerated) is not a waste and hence, not a hazardous waste (see Table 1 of OAC rule [3745-51-02](#)) and would not need to be sent to a carbon regeneration facility that has an Ohio EPA permit.

To view the new rule defining carbon regeneration units, see DHWM's Web page under "[Recently Adopted Rules](#)." To view their federal counterpart or any Federal Registers that have to do with the rule change, please see DHWM's [rules organized by subject](#). If you have any questions about your spent activated carbon or regeneration activities, please contact the DHWM's [Regulatory Services Unit](#) at (614) 644-2917.



Free OnLine Pollution Prevention (P2) Training

Ohio EPA's NEW Office of Compliance Assistance and Pollution Prevention (*OCAPP*) offers free online P2 training on the following topics:

- Metal Finishing,
- Painting & Coating,
- Industrial Parts Cleaners and Alternative Cleaning, and
- Environmental Accounting.

All of these online P2 training opportunities are in PowerPoint format and can be accessed at: www.epa.state.oh.us/opp/onlinetraining.html.

If you have questions or would like advice on how to generate less hazardous waste, please contact your *district office* inspector. DHWM's hazardous waste inspectors offer technical assistance to businesses by helping them identify ways to generate less waste. If you would like to learn more about pollution prevention go to: www.epa.state.oh.us/opp/oppmain.html.

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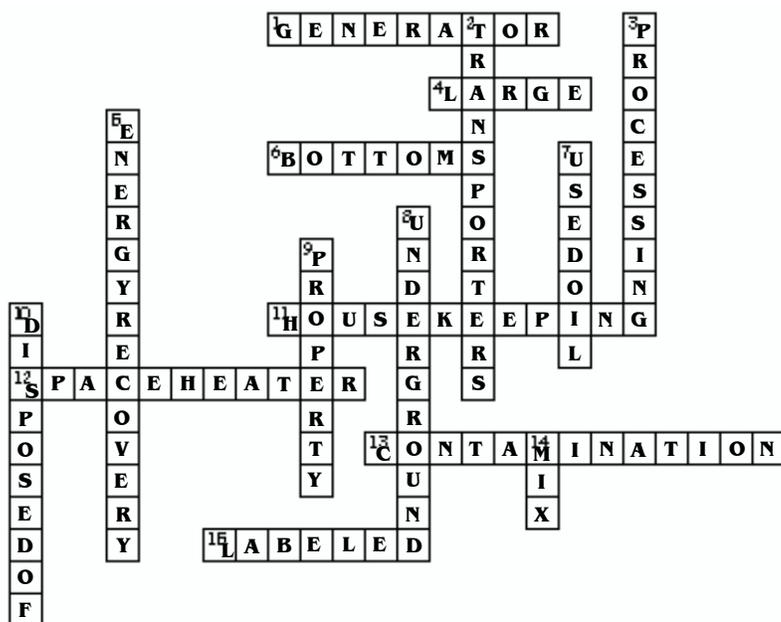
You can also contact an inspector from one of the Ohio EPA *district offices*:

<i>Central District Office:</i>	(614) 728-3778
<i>Northeast District Office:</i>	(330) 425-9171
<i>Northwest District Office:</i>	(419) 352-8461
<i>Southeast District Office:</i>	(740) 385-8501
<i>Southwest District Office:</i>	(937) 285-6357

References

1. U.S. EPA RCRA Online. Memorandum from Elliott P. Laws, U.S. EPA, to Waste Management Division Directors, Regions I-X, May, 24, 1994. RCRAOnline No. 13673
2. Ohio Administrative Code rule 3745-270-03

Answers to Used Oil Generator Puzzle



Ohio Hazardous Waste

Notifier

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