

Ohio Hazardous Waste

Notifier

A Publication of Ohio EPA, Division of Hazardous Waste Management

Don't Forget to File Your Annual Hazardous Waste Report for 2002

The electronic software used for filing the annual hazardous waste report will be available for use once again. And no delays are expected in the release of the software this time! Ohio EPA is planning to release the software around mid-December; however, you can be notified of the exact date through our new listserv service. Businesses are encouraged to use the software to file their reports. A new feature for the 2002 cycle's software is the ability to print all pages in the report rather than one at a time. Since the March 1, 2003, deadline falls on a Saturday, the 2002 annual hazardous waste reports will be due the following Monday, March 3, 2003, by the close of business. Be sure the report is complete and accurate - the Division of Hazardous Waste Management intends to issue notices of violation when appropriate. Faxed copies of reports will not be accepted.

If the person certifying your report has changed, complete and submit a new PIN application which can be found in Adobe Acrobat format at this Web page address: <http://www.epa.state.oh.us/dhwm/PINapp.pdf>. Turn in the PIN application as soon as possible to avoid delays in submission of your report. Faxed copies of applications will not be accepted.

Please sign up for [DHWM's listserv](#) to receive e-mail updates and important information on the annual hazardous waste report and the software. Information about the listserv is contained in this edition of the *Notifier*. As soon as the software is available for download from DHWM's Web page, the

division will send an e-mail to all listserv annual report subscribers.



Rule Making: How You Can Participate

Ohio EPA's rule-making process contains several opportunities for your voice to be heard. Ohio EPA:

- drafts the rules;
- provides drafts to "Interested Parties" for comments;
- changes the draft rules based on comments, as necessary;
- proposes the rules and holds a public hearing during a public comment period;

- changes the proposed rules based on comments, as necessary;
- finalizes the rules.

This article will concentrate on how the Division of Hazardous Waste Management (DHWM) does its rule-making and where in the process your participation is encouraged. We invite you to ask questions about the hazardous waste management rules and provide comments on them at any time.

continued on page 2...

2.

Rule Making

continued from page 1

Rule Drafting: Why Rules Say What They Say

The hazardous waste management rules are drafted using the corresponding federal rules as a guide. Generally, federal and Ohio laws require that Ohio's hazardous waste management rules be equivalent to their federal counterpart. That means that if there is a provision in the federal Resource Conservation and Recovery Act (RCRA) rules that states are required to adopt, Ohio EPA must make the corresponding state rule the same as the federal rule. Ohio EPA has very little flexibility to make the state hazardous waste rules different from their federal counterpart(s), and continues to strive for close equivalence. In some cases, Ohio's rules are more stringent than the corresponding federal rules. There are a number of ways to influence what the federal rules say, but that process is not described in this article.

You can sign up for [DHWM's listserv](#) in order to receive e-mail updates and important information on recent rule-making actions, additions to the division's Web site related to the Ohio hazardous waste rules, and other rule-making information that may be of interest. Information about the listserv is contained in this edition of the *Notifier* and you can go to DHWM's Web site to sign up.

First Comment Opportunity

Once the draft rules have been reviewed by DHWM and their release is approved by the director of Ohio EPA, they are issued to Interested Parties for a review and comment period. We refer to these as "draft rules." This is the first comment period on the rules. This comment period is usually 60 days, although the duration can vary. This is your first opportunity to get the drafts and see how DHWM is

planning to adopt the rules. There are a number of review tools and help documents that become available at this time as well. Since there is no legally mandated time frame for this comment period, this is the division's best opportunity to work with you to address any questions or concerns you have about the new or amended language in the rules. We encourage you to take advantage of this opportunity. To get on the Interested Parties list, call or e-mail Kit Arthur at (614) 644-2932 or kit.arthur@epa.state.oh.us and ask her to put you on the Interested Parties mailing list. If you sign up on the listserv we will automatically include you on the Interested Parties list.

After the Interested Parties comments are received and considered by DHWM, we make changes to the rules as appropriate. A detailed list of these changes is maintained so that when the rules are proposed, we can tell you exactly where and how they were changed in the hope that this will help your review of the proposed rules.

Second Comment Opportunity

Once the director of Ohio EPA has approved changes to the draft rules, the rules are proposed. This involves filing an electronic copy of the rules with the [Joint Committee on Agency Rule Review \(JCARR\)](#), the [Legislative Service Commission \(LSC\)](#), the [Secretary of State](#) and the [Ohio Small Business Association](#). At this time, a public notice is also provided, and it appears in the appropriate [Ohio EPA Weekly Review](#) and on the [electronic Register of Ohio](#). The public notice establishes the public comment period and the required public hearing on the proposed rules. LSC's function is to review the format of the rules (underlining, indenting, etc.), not their

content. The Secretary of State's office keeps the rules as a record of the Agency's action, and JCARR makes sure the rules are filed under proper statutory authority and that they don't conflict with other rules of the state. The Small Business Association, a business advocacy group, may review the rules for impact, and may communicate their availability to other parties.

This second public comment opportunity, beginning with rule proposal, has a number of requirements that come from state law. DHWM must hold a public hearing, and we usually schedule it on the 39th or 40th day after proposal to allow you the maximum review time possible.

You may submit comments on the proposed rules in writing, or you may attend the hearing and have your verbal comments audio recorded. Once the DHWM comment period has closed, JCARR's comment period is open until the 65th day, so you may call them and request to be heard at their hearing, and/or you may submit additional comments to them. JCARR provides us with a copy of any comments they receive.

What We Need From You In Comments

When providing comments to DHWM, whether on draft rules in the first comment period or on proposed rules in the second comment period, there are a few things you should include. First, identify yourself and provide your phone number and/or e-mail address so if the division needs to ask you about your comments, we can. Tell DHWM which rule your comment applies to, using the rule number, and tell us the paragraph location your comment applies to if there is a specific location you're trying to point out. (Sometimes

continued on page 3...

Rule Making

continued from page 2

comments are about the whole rule, so that's not always practical to include.)

Your comments don't have to be in narrative form. DHWM often receives comments in a table listing the rule number and location in one column, and the comment in the other column. Sometimes comments consist of a short cover letter with specific pages of the draft rules attached, with the item of note circled or highlighted and no other discussion. Comments may be submitted in writing via the mail, hand-delivery, e-mail or fax. DHWM isn't particular about the form you choose or your method of delivery, as long as it is understood what you want changed in the rule. All comments are carefully considered, and we appreciate the effort that you invest in providing them.

After the Comment Periods

Once the Ohio EPA comment period and the JCARR jurisdiction have both expired, DHWM submits the rules for certification (signature) by the director of Ohio EPA. Then the rules are adopted by submitting the finalized signed rules to **JCARR**, **LSC**, and the **Secretary of State**; this is also called "final filing" the rules. At this time, a public notice of adoption is published in the next **Ohio EPA Weekly Review** and on the **electronic Register of Ohio**. This public notice includes notice of the effective date of the rules: this is the date that compliance is required. The effective date for hazardous waste rules is usually between 30 and 90 days after their adoption, and is specified in both the public notice and on all copies of the final rules that are provided after their adoption. The public notice also contains information on filing an appeal.

For further information on anything in this article, please call Kit Arthur at 614.644.2932 or e-mail her at kit.arthur@epa.state.oh.us.

DHWM's listserv - <http://www.epa.state.oh.us/dhwm/listserv.html>

Joint Committee on Agency Rule Review (JCARR) - <http://www.jcarr.state.oh.us/>

Legislative Service Commission (LSC) - <http://www.lsc.state.oh.us/rules/>

Secretary of State - <http://www.state.oh.us/sos/>

Ohio Small Business Association - <http://www.osba.com/>

Ohio EPA Weekly Review - <http://www.epa.state.oh.us/legal/pubnot.html>

Register of Ohio - <http://www.registerofohio.state.oh.us/index.jsp>

Electronic News Service Available from DHWM!

The Division of Hazardous Waste Management has created an electronic news service to provide quick and timely updates on events and news related to hazardous waste activities in Ohio. Members of this service can sign-up to receive free updates about each of the following topics: permitting, rule making, enforcement, guidance, annual reports, the *Notifier*; and the Cessation of Regulated Operations program.

This service is part of the Division of Hazardous Waste Management's continuing efforts to improve the way we communicate with our stakeholders. Updates will be issued when necessary to keep you informed. To sign-up, you must have an e-mail account. For



specific instructions, please go to the following Web address: <http://www.epa.state.oh.us/dhwm/listserv.html>. There is no charge for subscribing.

Ask the Inspector...

Q. I generate an air pollution control dust that is hazardous because it fails the toxicity characteristic leachate procedure for cadmium (1.0 mg/l). I would like to add a treatment system after the baghouse to treat the dust so I can send it to a solid waste landfill. What regulations apply to the treatment system and the dust?

A. As stated in the [Fall 1998 issue of the Notifier](#), Ohio hazardous waste rules allow generators to treat their hazardous waste in tanks or containers without a hazardous waste installation and operation permit. You must comply with all applicable management standards for hazardous waste tanks or containers that you use to treat and/or store your air pollution control dust. You must also ensure that the treated dust meets land disposal restriction standards for characteristic hazardous waste before you ship it to the licensed solid waste landfill.

You must treat the air pollution control dust for cadmium and for any underlying hazardous constituents that you can reasonably expect to be present in the dust (see Ohio Administrative Code (OAC) rules [3745-270-09](#), [3745-270-40](#) and [3745-270-48](#)). After you have treated the air pollution control dust, you may dispose of it at a solid waste landfill, provided the dust meets the land disposal restriction level, and it no longer exhibits the characteristic for cadmium.

Q. What is an underlying hazardous constituent (UHC)?

A. OAC rule [3745-270-02 \(A\)\(9\)](#) defines UHCs as those constituents listed in OAC rule [3745-270-48](#) that can reasonably be expected to be present at the point of generation of the hazardous waste at a concentration above the universal treatment standard.

Q. Where is the point of generation of my air pollution control dust?

A. The point of generation is the point where a waste first becomes accessible and subject to the hazardous waste rules. For purposes of the land disposal restriction requirements, the point of generation is considered to be the first place that it is possible for you to obtain a sample of the waste stream. Since the waste will be generated in the baghouse and then moved to the treatment system, you will be able to sample the waste before it enters the treatment system.

Q. Do I have to do anything else if I treat my air pollution control dust to meet the land disposal restrictions and before I send it to the solid waste landfill?

A. As a generator who treats his waste and sends it to a solid waste landfill, you must comply with OAC rule [3745-270-07\(A\)\(5\)](#) concerning a written waste analysis plan and the notification requirements of OAC rule [3745-270-09\(D\)](#).

Your waste analysis plan must describe the procedures you will follow in order to comply with the treatment standards. The plan must also be based on a detailed chemical and physical analysis of the dust and contain all information necessary to treat the dust. Your plan must also specify a frequency that you will sample and analyze the treated dust to ensure compliance with the hazardous waste rules. You must keep the plan in your onsite files and it must be available for inspectors.

If you are sending waste that you have treated to a licensed solid waste landfill, you must place a one-time notification in your file and send a copy to the director of Ohio EPA.



You must put the following information on the one-time notification:

- the name and address of the licensed solid waste facility;
- a description of the waste including the applicable EPA hazardous waste codes, treatability group and underlying hazardous constituents; and,
- a certification signed by an authorized representative of your company.

You must send the notice to the director of Ohio EPA annually by December 31 or any time that your process changes or you send the waste to a different solid waste landfill.

Q. I am a conditionally exempt small quantity generator (CESQG). Can I dispose of my hazardous waste with my regular trash?

A. As a CESQG in Ohio, one of the few hazardous waste requirements that you must follow is to make sure your hazardous waste gets delivered to a facility permitted to store, treat or dispose of hazardous wastes. Other states and U.S. EPA may allow CESQGs to dispose of their hazardous waste with their regular trash, but in Ohio, it is illegal for a CESQG (or any other hazardous waste generator) to do so. This is one of the major regulatory differences be-

Ask the Inspector

continued from page 4

tween Ohio EPA's hazardous waste rules and U.S. EPA's hazardous waste rules.

Ohio law, [§3734.02 \(F\)](#) of the Ohio Revised Code and rule [3745-51-05](#) of the Ohio Administrative Code (OAC), requires that all hazardous wastes generated in Ohio only be sent to a facility that has a hazardous waste permit or is otherwise operating according to specific state laws.

As a CESQG, you can treat certain hazardous waste to render it non-hazardous and then dispose of it with your regular trash if you meet a number of additional requirements. The requirements you must follow are located in OAC rule [3745-52-34 \(A\)](#). These are the same requirements for large quantity generators. The requirements are:

- You can only treat a *characteristic* hazardous waste for the purposes of rendering it non-hazardous and disposing of it into the regular trash.
- You must treat hazardous waste at the facility where the hazardous waste was generated.
- You must treat the hazardous waste in either a tank, container or containment building as those units are defined in the hazardous waste rules. (You must comply with management standards for those units.)
- You must develop a facility contingency plan, an employee training program and a treatment unit inspection procedure/schedule.
- You do not need to treat the hazardous waste to the treatment standards given in the Land Disposal Restrictions, OAC chapter [3745-270](#).

- You do not need to develop a waste analysis plan explaining how the hazardous waste will be treated; however, you must properly evaluate the treated hazardous waste to ensure that it is no longer hazardous.

- You cannot burn your hazardous waste.

Q • I generate a wastewater treatment sludge that is not listed but is hazardous waste because it fails the toxicity characteristic leachate procedure (TCLP) test for lead when it comes out of the sludge settling tank. The sludge is removed from the settling tank by a conveyor and transferred to a sludge treatment system where a proprietary reagent is added. The sludge treatment system is a tank as defined in Ohio Administrative Code (OAC) rule [3745-50-10](#). The sludge treatment system is attached to my wastewater treatment system and is included in the wastewater permit-to-install. The wastewater treatment system has a permitted National Pollutant Discharge Elimination System (NPDES) outfall. (1) Do I have to comply with the hazardous waste tank rules for the sludge treatment system? (2) Does the sludge have to meet the land disposal restriction (LDR) standard for lead and underlying hazardous constituents (UHC) in OAC rule [3745-270-40](#) before I send it to a licensed solid waste disposal facility?

A. (1) Because your sludge treatment system is a part of a permitted wastewater treatment system that is subject to Clean Water Act requirements, it is exempt from the hazardous waste tank management standards. In addition, you do not need to get a hazardous waste permit for the sludge treatment system because it is a tank as defined in OAC rule [3745-50-10](#). As long as the sludge

is not hazardous when it is removed from the sludge treatment system, you do not have to count it towards your monthly generation rate because you are managing the sludge in a wastewater treatment unit. However, the wastewater treatment sludge is not completely exempt from the land disposal restriction (LDR) rules.

(2) The LDR rules [[OAC 3745-270-01\(C\)\(4\)](#)] allow a characteristic hazardous waste that is treated in a Clean Water Act treatment system to be land disposed after it is treated to bring it below the characteristic level (5.0 milligrams per kilogram for lead). Since such a waste is no longer hazardous, it can be sent to a licensed solid waste landfill.

If you treat your hazardous sludge to remove the characteristic so that you can dispose of it in a solid waste landfill, you must evaluate the waste in accordance with OAC rule [3745-52-11](#). frequently enough to ensure that you are not disposing of a hazardous waste in a solid waste landfill. You must also place a one-time notification in your file and send it to the director of Ohio EPA. This notification must include the name and address of the solid waste landfill receiving the waste and a description of the waste, including the waste code or codes applicable to the waste before its treated. The certification must be signed by an authorized representative of your company using the language in OAC rule [3745-270-07\(B\)\(4\)](#).

You must also renotify and recertify whenever the process generating the waste changes or whenever you send the waste to a new solid waste landfill. If there are no changes, you only need to send the renotification to the director of Ohio EPA on an annual basis.

Regulatory Status of Aerosol Cans:

A little can, a lot to think about

An aerosol can is comprised of two parts - the contents (liquid and propellant) and the metal can (container). The container is empty when the contents are removed through normal use. If the can contains a compressed gas propellant that is a hazardous waste, the internal pressure of the can must also reach atmospheric pressure. Puncturing, draining and crushing aerosol cans by mechanical means designed to do such, is a method normally used to empty cans and to attain atmospheric pressure within the can. This procedure is not hazardous waste treatment regardless of whether the can or the contents will be recycled.



If your business accumulates aerosol cans containing significant amounts of hazardous liquid prior to being emptied, you may or may not need to manage them according to the applicable generator regulations. Whether or not you must manage them as hazardous waste depends on how the cans and the hazardous liquid will ultimately be recycled. Ohio EPA encourages businesses to recycle both the aerosol can and its contents if possible. If you puncture and drain cans on site, do it in a safe and environmentally-sound manner.

According to Ohio Administrative Code (OAC) rules 3745-51-01(C)(4), (5) and (7), a material is "recycled" if it is used, reused or reclaimed; a material is "reclaimed" if it is processed to recover a usable product or if it is regenerated; and a material is "used" or "reused" if it is either: (a) employed as an ingredient, including use as an intermediate in an industrial process to make a product. . .or (b) used in a particular function or application as an

effective substitute for a commercial product.

There are five ways an aerosol can and its contents can be managed properly. Those ways are described below.

Aerosol can and contents are both recycled (i.e.: used, reused, or reclaimed (sent for distillation))

Materials that are recycled as scrap metal are considered hazardous waste, but are exempt from regulation. Aerosol cans that do not contain a significant amount of liquid (e.g., a can that has been punctured and drained) would meet the definition of scrap metal (OAC rule 3745-51-01(C)(9)). If cans are to be recycled, they would be exempt from regulation under OAC rule 3745-51-04(A)(13). The scrap metal exclusion attaches to the waste at the point of generation. Materials that are recycled as scrap metal are not subject to OAC chapter 3745-52.

If the liquid in an aerosol can cannot be used for its intended purpose, seek ways to reclaim it. Aerosol can contents are considered commercial chemical products. According to OAC rule 3745-51-02(C)(3), commercial chemical products that are reclaimed are not wastes, and therefore, not hazardous wastes. If you use or reclaim the liquid and recycle the cans as scrap metal, the aerosol cans are not subject to the hazardous waste regulations.

As a generator of aerosol cans that, including the contents, are to be recycled by being used, reused, or reclaimed, you do not need to determine if the can or its contents are hazardous waste and you do not need to manage the cans as hazardous waste, prior to or after puncturing. In addition, you do not

need to quantify, store, label, transport or otherwise manage the cans according to the hazardous waste rules.

Aerosol can is recycled, contents are used in fuel blending or used in a manner constituting disposal

Although materials that are recycled as scrap metal are not subject to Ohio OAC chapter 3745-52, this exclusion is negated when the contents are burned for energy recovery, used to produce a fuel or contained in fuels (OAC rule 3745-51-02(E)(2)(b)). The cans may still be recycled as scrap metal, however, you will be required to quantify, store, label, transport or otherwise manage the cans according to the hazardous waste rules prior to puncturing. After puncturing, cans do not need to be managed as hazardous waste, although the removed contents would. A business may operate a satellite accumulation area to accumulate aerosol cans at or near the point of generation prior to puncturing them. See OAC rule 3745-52-34 (C) for more information about satellite accumulation areas. An exception to this includes liquid used for fuel, that is normally used as a fuel. (See the Division of Hazardous Waste Management's guidance on Satellite Accumulation at: <http://www.epa.state.oh.us/dhwm/satelli4.htm> for more information.)

Aerosol can is recycled, contents are disposed

If the contents will be disposed of, determine if the contents are hazardous waste pursuant to OAC rule 3745-52-11. The contents may be a listed or characteristic

continued on page 7...

Regulation of aerosol cans

continued from page 6

hazardous waste. If the contents of the can meet the definition of **reactivity**, one of the characteristics of hazardous waste, then the waste carries the D003 waste code. It is DHWM's position that partially filled or empty aerosol cans do not categorically exhibit the reactivity characteristic simply because they are sealed containers that can burst when heated.

If contents are hazardous, the cans containing hazardous waste must be managed in accordance with all applicable hazardous waste regulations prior to puncturing. After puncturing, cans do not need to be managed as hazardous waste since they are being recycled. Only the contents that have been removed must be managed as hazardous waste. A satellite accumulation area can be operated to accumulate aerosol cans at or near the point of generation prior to puncturing.

Aerosol can is disposed, contents are reclaimed

If the can will be disposed of, determine whether it is a hazardous waste. Scrap metal that is not recycled is subject to the hazardous waste regulations - if it is hazardous. This requires making a hazardous waste determination pursuant to OAC rule [3745-52-11](#) and, if hazardous, managing the can in accordance with all applicable hazardous waste regulations.

As stated above, the liquid contents of aerosol cans are considered commercial chemical products. According to OAC rule [3745-51-02\(C\)\(3\)](#), commercial chemical products that are reclaimed are not wastes, so they cannot be hazardous wastes. Therefore, manage the cans as hazardous waste prior to puncturing; but after puncturing, only the can would be managed as if it is

hazardous. It is not necessary to manage the liquid contents as hazardous waste when contents are reclaimed. In addition, you do not need to quantify, store, label, transport or otherwise manage the liquid contents according to the hazardous waste rules.

Aerosol can and contents are both disposed

If the can and its contents will be disposed of, determine whether either of the components are a hazardous waste. Aerosol cans that leave a facility containing significant amounts of liquid, sometimes a result of defective or clogged nozzles, are not eligible for the scrap metal exclusion if the contents are hazardous waste. Evaluate the material remaining in cans with significant amounts of liquid to determine whether or not the contents are hazardous. Ohio EPA suggests using both generator knowledge of the cans and their contents and verifying if the cans are empty according to Resource Conservation and Recovery Act (RCRA) regulations (see OAC rule [3745-51-07](#)). A facility must manage the cans containing hazardous waste in accordance with all applicable hazardous waste regulations. Therefore, scrap metal that is not recycled would be subject to the hazardous waste regulations if it is determined to be hazardous pursuant to OAC rule [3745-52-11](#). Please also note that liquids are prohibited in landfills.

If a business generates hazardous wastes, all of Ohio's applicable hazardous waste requirements must be met. Ohio's hazardous waste rules are located in OAC Chapters [3745-49](#) through [3745-279](#). The rules can be accessed on DHWM's main Web site two ways: go to the list of rules

directly (<http://www.epa.state.oh.us/dhwm/dhwmrules/index1.htm>) or go to DHWM's main Web page (www.epa.state.oh.us/dhwm), select "Laws and Regulations," and then select "Ohio Administrative Code."

Commonly Asked Question:

1. If a facility buys one unit to puncture, drain and crush aerosol cans and places it in a centralized location, is this location considered an accumulation area subject to hazardous waste management and closure requirements?

The answer is no as long as the cans will be recycled as scrap metal. Aerosol cans that do not contain significant amounts of liquid would meet the definition of scrap metal and, if they are to be recycled, would be exempt from regulation under OAC rule [3745-51-04\(A\)\(13\)](#). The centralized location is not a hazardous waste accumulation area because hazardous wastes that are recycled as scrap metal are exempt from hazardous waste rules. Hazardous waste closure requirements are not applicable for the same reasons and do not have to be managed according to OAC chapter [3745-52](#).

If the cans will not be recycled, then the hazardous waste regulations apply to the generator of the cans and the facility performing the puncturing, draining and crushing of the cans, including the centralized location of the machine.

If you need more information or have questions about Ohio's regulation of aerosol cans, please contact the Division of Hazardous Waste Management at (614) 644-2917.

Let us Present for You...

...The **hazardous waste topic** of your choice. The Division of Hazardous Waste Management, Regulatory Services Unit (RSU) would like to customize a presentation for your company, your customers, your association or trade group meeting or for your government entity. RSU staff are available to prepare and present a program addressing the **hazardous waste issues** of importance to you. To request a presentation, contact Jeff Mayhugh at 614.644.2917 or jeff.mayhugh@epa.state.oh.us. You will be asked a few brief questions about the type of presentation that you're looking for, as well as, information about who will be attending the presentation. This will help DHWM design the presentation to include the topics and information you need.

Presentations which include the following topics have already been prepared:

- **Electronics and Computers** - Learn how DHWM classifies computers and electronic equipment and what management choices you have.
- **Fluorescent Lamps** - Learn what constitutes a hazardous waste, what regulations apply to hazardous waste and how the hazardous waste regulations pertain to fluorescent lamps.
- **Hazardous Waste Identification** - Hear about the requirements for hazardous waste generators including proper waste evaluation, hazardous waste management, generator classification and a discussion of characteristic and listed hazardous waste.
- **Inspections** - Hear topics covering the requirements for each of the three types of hazardous waste generators including various possible hazardous waste management scenarios in a question and answer format.
- **RCRA** - Learn about what materials are considered to be waste, and which types of materials are considered hazardous waste. This includes a discussion of hazardous waste generator classifications and the requirements for each.
- **Land Disposal Restrictions** - Learn why Ohio has land disposal restriction (LDR) requirements, as well as, the history & present status of the LDR rules. Hear what the Universal Treatment Standards are and how they are developed. Included are point of generation examples, requirements for characteristic and listed hazardous waste and generator treatment requirements.
- **Recycling** - Hear if recycled hazardous waste is subject to regulation. Find out if liability is removed by recycling. Learn about the different types of recycling and how to determine if they are legitimate. We'll answer the question, "does your recycling process require prior approval"?
- **Rules** - Get a better understanding of the hazardous waste rules and inspection process along with tips on how to avoid noncompliance situations. You will be provided with a working knowledge of the rules, and where to locate the rules applicable to you.



- **Used Oil** - Hear about the used oil community and the used oil requirements including prohibitions, exemptions, the rebuttable presumption, burning used oil and used oil filters.

- **Universal Waste Rule** - Learn about the purpose of the Universal Waste Rule, the categories of Universal Waste, Handlers of Universal Waste and other requirements.

- **Medical Waste** - Learn about what types of hazardous waste hospitals and medical facilities generate this presentation is for you. We provide a discussion of what is a waste, provide an overview of the rules, and talk about the types of waste commonly seen at medical facilities and hospitals. We also can share with you the most common violations seen at these sites.

Pollution Prevention (P2) for Metal Finishers

At metal finishing facilities, the layout of process and rinse tanks plays an important role in overall process efficiency, as well as, in reducing waste generation. Proper rinsing methods and increasing process bath water life also play major roles in process efficiency and minimizing waste generation. You should evaluate each of these focus areas to determine if you have metal finishing pollution prevention (P2) opportunities at your business.

If you are a metal finisher, below are some P2 ideas for you to evaluate implementing at your facility.

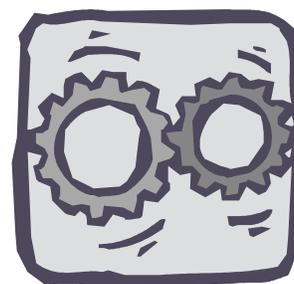
- Use the least toxic, easiest to manage chemicals
- Get the most use out of the process solutions
- Keep process solutions where they belong - in the tanks!
- Return as much escaping solution (drag out) as possible to the tanks
- Use the least amount of rinse water required for good rinsing

Some ways to keep the solution in the tank are:

- Keep racks clean to prevent metal build-up
- Evaluate how the parts are placed on the rack to make sure they don't collect solution
- Evaluate increasing the barrel rotation and hang time
- Evaluate tank spacing, sequencing and the installation of drain boards to direct solution back into the tank
- Evaluate the use of spray rinses

By implementing various P2 options, a metal finisher can save money and reduce generation of wastes by:

- Decreasing the waste water treatment chemicals needed
- Decreasing the amount of wastewater filter cake produced
- Decreasing the metal concentration in the wastewater



You can view more information on P2 for metal finishers at: <http://www.epa.state.oh.us/opp/MetalFinishing.html>. Please contact your inspector if you would like additional assistance in implementing P2 at your facility. Our inspectors can offer technical assistance to businesses by helping them identify ways to generate less waste. If you would like to learn more about P2 go to: <http://www.epa.state.oh.us/opp/oppmain.html>.

Ohio Hazardous Waste

Notifier

Bob Taft: Governor
Chris Jones, Director

Editor:

Rose Connelly

Contributors:

**Pam Allen, Kit Arthur,
Larry Benintend, Rose Connelly,
Karen Hale, Tammy Heffelfinger,
Andy Kubalak, Jeff Mayhugh and
Helen Miller**

Editorial Assistance:

Dina Pierce

Graphics and Layout:

Pattie Rhodes-Mehrle

Ohio EPA is an
Equal Opportunity Employer
Printed on Recycled Paper