Ohio Hazardous Waste

A Publication of Ohio EPA, Division of Hazardous Waste Management

U.S. EPA Web Sites Provide Answers to Your Hazardous Waste Questions

Have you ever wondered how much of your company’s environmental information is available to the public? Do you want to know if the hazardous waste facility where you’ll be sending your waste has any outstanding regulatory violations? Or if a company has an EPA identification (ID) number? Online tools available on U.S. EPA’s Web site can help answer these and other questions.

Three of U.S. EPA’s online tools allow you to search for environmental information on a company. Envirofacts Data Warehouse, Window To My Environment and the Enforcement and Compliance History Online include hazardous waste data drawn from the Resource Conservation and Recovery Act Information System (RCRAInfo). RCRAInfo is a national program management and inventory system that contains information about hazardous waste handlers. Ohio EPA enters data received from sources such as Notification of Regulated Waste Activity Forms, hazardous waste inspections, monitoring and enforcement, permitting, closure and post-closure data directly into RCRAInfo. We encourage you to review the information about your facility. If you identify problems, each of the Web sites has a process that allows you to notify the Web master of the error(s). To correct problems concerning basic information about your facility (name, address, generator status, etc.), please submit an updated Notification of Regulated Waste Activity Form to Ohio EPA, Division of Hazardous Waste Management. You can find the form and instructions at: http://www.epa.state.oh.us/dhwm/notiform.html.

Envirofacts Data Warehouse

(Envirofacts) is a single point of access to several U.S. EPA databases. It provides information about environmental activities that may affect air, water and land anywhere in the United States. Information in Envirofacts is accessible in a variety of ways. You can search data by a particular subject area, such as waste, toxics, air, radiation, land and maps. You can also search data by entering a specific ZIP Code, City and State, or County and State to get a sampling of environmental data about the selected geographic area. Envirofacts also includes an online error reporting process that allows users to alert U.S. EPA and the States to possible errors. The Web address is: www.epa.gov/enviro.

Window To My Environment

(WME), www.epa.gov/enviro/wme, is a powerful Web-based tool that provides a wide range of federal, state and local information about environmental conditions and features. After choosing a location of interest, WME will provide the following:

Interactive Map - shows the location of regulated facilities, monitoring sites, water bodies, population density, perspective topographic views and so much more - with hotlinks to state/federal information about these items of interest.

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More Used Oil

When most people hear the words “used oil,” they immediately envision the material drained from their car during an oil change. Businesses deal with many other types of used oil, so for them, regulated “used oil” has a whole different meaning.

What is Used Oil?

Used oil normally includes any petroleum-based or synthetic oils that are used and contaminated with physical or chemical impurities. To see if your material meets the definition of used oil, you must determine if it meets the following three criteria:

1) **Origin** — the material must come from either refined crude oil or from synthetic materials (including materials derived from coal, shale or polymer-based starting material, e.g. Mobil 1 and Castrol Syntec).

2) **Use** — the material must be used as a lubricant, hydraulic fluid, heat transfer fluid (coolant), cutting fluid, buoyant or for some other similar purpose.

3) **Contaminants** — the material must be contaminated with either physical or chemical impurities from its use. Examples of contaminants could include dirt, metal shavings, solvents, or halogens.

If you believe that you may manage used oil, you should determine if you are a used oil generator.

What is a Used Oil Generator?

A used oil generator is a person whose action or process first causes used oil to become subject to regulation. Many different types of businesses generate used oil, including manufacturing companies, machine shops, metal working industries, auto service stations and quick lube shops.

In addition to management standards for used oil generators, there are additional regulations for other used oil activities such as:

- transportation
- collection (centers)
- re-refining or reprocessing
- burning
- marketing

If your business is involved in any of these activities, contact DHWM for information about applicable regulations.

What Are My Responsibilities if I Generate Used Oil?

Ohio’s regulations include some specific requirements for used oil generators. These can be viewed online at: [http://www.epa.state.oh.us/dhwm/l_ruom.html](http://www.epa.state.oh.us/dhwm/l_ruom.html).

Most of these regulations relate to good housekeeping practices and include:

- Label containers or tanks of used oil with the words “Used Oil.”

- Store used oil in containers or tanks that are in good condition (not rusting, leaking).

- If there is a leak of used oil, stop the leak, contain it, clean it up and properly manage the cleanup materials.

- Use a transporter with an EPA identification number when shipping used oil off site.

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About Manifests

Q. What is a hazardous waste manifest?

A. A hazardous waste manifest is a multi-copy shipping document that small quantity generators (SQGs) (generate between 100 < 1,000 kg hazardous waste per month) and large quantity generators (LQGs) (generate greater than 1,000 kg hazardous waste per month) must fill out and use to accompany hazardous waste shipments.

Q. Why do I need to use a hazardous waste manifest?

A. The manifest system is designed to track hazardous waste from the generator to the final destination to verify that the waste has been properly delivered. Generally, SQGs and LQGs are required to use a manifest, as specified in Ohio Administrative Code (OAC) rules 3745-52-20 through 3745-52-23.

Transporters must comply with the manifest requirements in OAC rules 3745-53-20 through 3745-53-22. OAC rules 3745-54-71(C) and 3745-65-71(C) require the owner or operator of a hazardous waste facility initiating a shipment to comply with OAC Chapter 3745-52. That means the owner or operator initiating a shipment of hazardous waste from his facility must comply with the manifest requirements.

Q. Who must sign the hazardous waste manifest?

A. After completing the hazardous waste manifest, the generator must sign and date it. As defined in OAC rule 3745-50-10, the generator is any person, by site, whose act or process produces hazardous waste or whose act first causes a hazardous waste to become subject to the hazardous waste rules. From this definition, the facility and/or a contracted company or consultant, while acting as an employee of the generator, could be considered the generator.

In addition to filling out the hazardous waste manifest, the generator must certify that a good faith effort was made to minimize the facility's waste generation and select the best waste management method available. The transporter(s) and designated hazardous waste management facility's owner or operator must also sign, date and retain a copy of the manifest.

Q. When shipping hazardous waste out of Ohio, which state's uniform hazardous waste manifest do I use?

A. As stated above, Ohio uses the U.S. EPA form, 8700-22 and 8700-22A, if necessary. If you are transporting hazardous waste through multiple states, you should contact each of the states you will be traveling through to determine your manifest requirements. You may want to consider the following:

• The Uniform Hazardous Waste Manifest was designed to be uniform throughout the country. States with final authorization must use the uniform manifest. Under limited circumstances, states may impose their own manifest information or management requirements. Generators often need to prepare multiple manifests for interstate shipments to satisfy the requirements of the states through which the hazardous waste traveled.

• Some states have optional portions of the hazardous waste manifest form. For example, some states have assigned additional generator identification numbers, transporter identification numbers, facility identification numbers or some combination of the three. Generators who send waste to multiple states need to keep track of which states require this information and ensure that each manifest is filled out correctly for its destination state.

• States that require generators to use their state manifest form generally use a 6-part or 8-part form. Often a person cannot obtain manifests from one location. As a result, a person must contact each state separately to request the state-specific form.

Q. When shipping hazardous waste into or within Ohio, does Ohio require its own state uniform hazardous waste manifest?

A. No, Ohio does not have its own version of the uniform hazardous waste manifest. According to OAC rule 3745-52-22, U.S. EPA form 8700-22 and 8700-22A, if necessary, must be used.

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Q. Where can I obtain a supply of uniform hazardous waste manifests?

A. You can order uniform hazardous waste manifest forms from commercial companies that produce the federal version of the manifest or obtain copies from some hazardous waste treatment, storage and disposal facilities. You can order manifest forms online or call to place your order from companies such as JJ Keller & Associates (www.jjkeller.com or 1-877-564-2333) or LabelMaster (www.labelmaster.com or 1-800-621-5808). Please note that Ohio EPA does not endorse companies that produce hazardous waste manifests.

Q. Does Ohio require in-state or out-of-state generators to send a copy of the hazardous waste manifest to Ohio EPA?

A. No. OAC rule 3745-52-23 does not require facilities to submit copies of manifests to Ohio EPA. Generators are required to prepare a hazardous waste manifest consisting of at least the number of copies which will provide the generator, each transporter, and the owner or operator of the designated facility with one copy each for their records and another copy to be returned to the generator.

Used Oil continued from page 2

• Do not mix used oil with other wastes such as mineral spirits, brake cleaner fluid or parts washer solvents unless you are sure that you are complying with the appropriate regulations.

Once you decide to have used oil removed from your property, you must have it either recycled or disposed of it properly.

How Can I Dispose of or Recycle Used Oil?

You CANNOT dispose of used oil on your property. You must send it to a recycling facility or disposal facility. The regulations encourage different recycling options such as:

- **Reconditioning** - removing impurities and reusing the oil.

- **Re-refining** - treating the used oil and removing impurities. Re-refining returns the oil to close to its original state so that it can be used to make new products.

- **Reusing** - used oil is returned to a petroleum refiner for feedstock for gasoline or coke production.

- **Burning for energy recovery** - used oil is treated to remove impurities such as water and solids, then burned as a fuel to generate heat.

The Division of Hazardous Waste Management has a list of companies that recycle used oil online at: http://www.epa.state.oh.us/dhwm/formslistchklist.html#UsedOil. If you prefer a hard copy, call (614) 644-2917.

Many people ask if they can burn their own used oil in on-site space heaters. This is normally allowable providing that you meet certain requirements which include:

(a) Only burning the used oil generated at your business or used oil received from a household do-it-yourselfer,

(b) Your space heater cannot burn used oil at a rate exceeding 0.5 million British thermal unit (Btu) per hour, and

(c) All combustion gases from your space heater are vented to the outside.

Please note that in addition to complying with the used oil regulations, you may also be subject to regulation by Ohio EPA’s Division of Air Pollution Control (DAPC). If you want to burn used oil in a space heater, you should contact your local Ohio EPA, DAPC District Office for more information. Contact information for DAPC district offices and local air pollution control agencies can be viewed online at: http://www.epa.state.oh.us/dapc/general/dolaa.html.

You can also get more information about used oil from The Regulation of Used Oil: An Overview for Ohio Businesses - Used Oil Generators fact sheet available online at http://www.epa.state.oh.us/dhwm/pdf/UsedOilGen.pdf. Used oil rules appear in Ohio Administrative Code Chapter 3745-279, which can be viewed online at: http://www.epa.state.oh.us/dhwm/l_ruom.html.

If you have any other questions or wish to speak to someone directly, you may contact a member of DHWM’s Regulatory Services Unit at (614) 644-2917, or write to:

Division of Hazardous Waste Management
Regulatory Services Unit
122 South Front Street
P.O. Box 1049
Columbus, Ohio 43215
Tel: (614) 644-2917
Fax: (614) 728-1245
Legitimacy Criteria and the Use or Re-Use of Materials as Effective Substitutes for Commercial Products

Ohio EPA encourages recycling even when hazardous wastes are involved. According to Ohio Administrative Code (OAC) rule 3745-51-02(E), materials are not wastes when they are used or reused as effective substitutes for commercial products. For the complete rule, go to [http://www.epa.state.oh.us/dhwm/dhwmrules/-51-02.pdf](http://www.epa.state.oh.us/dhwm/dhwmrules/-51-02.pdf).

Before a material can be considered an effective substitute, you should carefully consider the fate of the constituents in the waste and how they are actually used in the process. Legitimacy criteria for your determination is included in a U.S. EPA Memo dated April 26, 1989, available online at: [http://yosemite.epa.gov/osw/rerra.nsf/Documents/BFB132AA4BB3D1D3852565DA006F0447(faxback #11426, RPPC #9441.1989(19))](http://yosemite.epa.gov/osw/rerra.nsf/Documents/BFB132AA4BB3D1D3852565DA006F0447(faxback #11426, RPPC #9441.1989(19))).

For example, do the constituents actually play a part in the manufacture of the particular product? If they do, this will help to demonstrate that they are legitimately being used, rather than being treated and disposed of by incorporating them into a product. In addition, evaluating the following legitimacy criteria questions can be useful when you are focusing on a specific activity and evaluating whether a waste is being recycled legitimately. Please keep in mind that the legitimacy criteria should be considered as a whole.

- Is the material an effective substitute, or is it not as effective, or only marginally effective?
- Is the material used in excess of the amount necessary for the process?
- Is the quantity of the material used significantly greater than the analogous raw material?
- Can the material be fed directly into the process (i.e. direct use) or is reclamation or pretreatment required?
- Do the hazardous constituents have a negative impact on the product quality?
- Are there Appendix VIII constituents not found in the analogous raw material, or present at higher concentrations?
- Does it exhibit hazardous characteristics that the analogous raw material would not?
- Is the material handled in a manner which is consistent with raw materials handling?
- Does the material have economic value comparable to the analogous raw material normally used in the process?
- Is there an end market for the material?
- Is there a contract in place to purchase the product produced when the material is used?
- Are there industry-recognized quality specifications/Material Safety Data Sheets for the material being used?
- What is the prevalence of the recycling practice on an industry-wide basis?
- Are records maintained regarding the recycling transaction?

The process may be legitimate if the hazardous constituent concentrations in the waste are comparable or similar to the same constituents in the raw materials. If the waste contains hazardous constituents which are not present in the raw material, or are present at significantly higher concentrations, and these constituents do not serve any purpose in the manufacture of the product, then the process may be considered treatment/disposal rather than legitimate recycling. You need to be able to demonstrate that the activity is legitimate recycling.

Can the Legitimacy Criteria be Applied to All Recycling Activities?

No, OAC rule 3745-51-02(E)(2) states that the following materials are wastes even if the recycling involves use, reuse or return to the original process:

- materials used in a manner constituting disposal or used to produce products that are applied to the land
- materials burned for energy recovery, used to produce a fuel or contained in fuels

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If you recycle hazardous wastes or generate hazardous solvent contaminated wipes, U.S. EPA plans to propose and accept comments on two new rules this Fall that may be of interest to you. This is a great opportunity to participate in the hazardous waste rule-making process from the start.

**Recycling of Hazardous Wastes**

Proposed revisions to the definition of solid waste, 40 Code of Federal Regulations (CFR) part 261.2, would exclude hazardous wastes from regulation if they are reclaimed in a continuous process in the same generating industry. Within the rule, definitions for “continuous process” and “same generating industry” are proposed.

U.S. EPA also proposes to codify criteria that define the legitimate recycling of hazardous secondary materials and hazardous wastes. The four part criteria target material management, product production, the contribution of the secondary material or waste to the product or process and the toxic constituents contained in the product.

**Solvent-Contaminated Wipes**

The rule proposal for solvent-contaminated industrial wipes will affect contaminated wipes sent to both landfill and non-landfill facilities (for example, laundries and combustion facilities). When certain conditions are met, the proposal excludes or exempts solvent-contaminated industrial wipes from many of the requirements under the hazardous waste rules.

Specifically, U.S. EPA proposes to conditionally exclude from the definition of solid waste reusable industrial shop towels and wipes that are contaminated with hazardous waste solvents and can no longer be used or reused without laundering or dry cleaning. Exclusion conditions include: the requirement to meet accumulation standards, the presence of no free liquids in the wipes and the use of Department of Transportation (DOT) containers for off-site shipments.

U.S. EPA also proposes to conditionally exempt from the definition of hazardous waste disposable industrial wipes that are contaminated with certain hazardous waste solvents that are either disposed by landfilling or some non-land based method (for example, combustion). Applicable conditions for wipes disposed of by a non-land based disposal method include: accumulation standard requirements, absence of free liquids in the wipes, labeling requirements and the use of DOT containers for off-site shipments.

**How Can I Find Out When the New Rules are Proposed?**

There are several ways for you to learn when the new rules are proposed.


2. Subscribe to U.S. EPA’s listserv to receive an e-mail notice when U.S. EPA publishes a notice regarding wastes in the Federal Register at [http://www.epa.gov/fedregstr/subscribe.htm](http://www.epa.gov/fedregstr/subscribe.htm);

3. Subscribe to DHWM’s electronic news service at [http://www.epa.state.oh.us/dhwm/listserv.html](http://www.epa.state.oh.us/dhwm/listserv.html)

**How and To Whom Do I Submit Comments?**

You can submit comments to U.S. EPA either electronically, by mail, by facsimile or through hand delivery/courier. The Federal Register notices for the proposed rules explain in detail how to submit comments including those that contain confidential business information.

To ensure proper receipt by U.S. EPA, identify the appropriate docket identification number in the subject line on the first page of your comments. Also, please be sure to submit your comments within the specified comment period. Comments received after the close of the comment period will be marked “late.” U.S. EPA is not required to consider late comments.

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Pollution Prevention (P2) for Painting and Coating
Gun Washers Can Reduce Waste Generated and Reduce Costs

Does your business use spray guns that need to be cleaned throughout the day?

Do your employees manually clean spray guns over a bucket or drum?

If you answered yes to both questions, you may want to consider purchasing a gun-washing unit. Similar to a dishwasher, units are available to wash one to four guns at once. To clean the guns, solvent is re-circulated throughout the unit. A filtration system on the units allow re-use of the solvent numerous times. Many spray gun manufacturers make gun-washing units.

Benefits of purchasing a gun washer include:

1) Reduce your labor cost. When employees manually clean a spray gun it may take five to 20 minutes. With a gun-washing unit, the unit cleaning cycle is generally 30 to 60 seconds, which can reduce the overall cleaning time to three minutes and allow employees to do other work.

2) Reduce disposal and product purchase costs. Since solvent is re-used many times, this reduces the amount of new solvent that needs to be purchased and the amount of spent solvent generated. Some gun-washing manufacturers claim solvent consumption may be reduced 50 to 90 percent.

3) Reduce employee exposure to solvents. Since gun-washing units are enclosed, exposure to solvents is minimized. In addition, accessories used in the painting process such as paint strainers and cups may also be placed in the unit for cleaning, further reducing labor costs.

Sounds like a great idea, but how much do they cost? The price varies, but units generally start at $600. Some more expensive units may have an option to add a solvent distillation unit to further extend solvent re-use. To assist businesses in deciding if a gun washer might be cost effective, the Iowa Waste Reduction Center (IWRC) has developed a gun-washer calculator on their Web site at: http://www.iwrc.org/programs/gunwash.cfm. The calculator uses your estimate of gallons per year of thinner used to calculate an estimated payback period for purchase. Be aware that the calculator does not account for electricity used to run the unit.

If a gun washer sounds like it may fit your needs, contact your spray gun supplier and find out if they manufacture one. Some may offer to loan you one to try out on a trial basis. They should also be able to provide you with names of other customers who have purchased a unit for product satisfaction references.

If you have additional questions, or would like other advice on ways to generate less hazardous waste, please contact your district inspector. Our hazardous waste inspectors offer technical assistance to businesses by helping them identify ways to generate less hazardous waste. If you would like to learn more information about Pollution Prevention go to: http://www.epa.state.oh.us/opp/oppmain.html.

An example calculation using IWRC’s calculator is:

<table>
<thead>
<tr>
<th>Input</th>
<th>Manual</th>
<th>Automatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinner Usage</td>
<td>520 gallons/year</td>
<td>260 gallons</td>
</tr>
<tr>
<td>Estimated new thinner usage w/gun wash unit</td>
<td>$4.00/gallon</td>
<td>$5.00/gallon</td>
</tr>
<tr>
<td>Estimated hazardous waste disposal cost</td>
<td>12 minutes</td>
<td></td>
</tr>
<tr>
<td>Labor-manual washing</td>
<td></td>
<td>3 minutes</td>
</tr>
<tr>
<td>Labor rate</td>
<td>$30.00/hour</td>
<td>$600.00</td>
</tr>
<tr>
<td>Automatic gun wash unit cost</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Annual Operating Cost Comparison

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<tr>
<th>Materials</th>
<th>Manual</th>
<th>Automatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste disposal</td>
<td>2080 gallons</td>
<td>1040 gallons</td>
</tr>
<tr>
<td>Labor cost</td>
<td>$6.00</td>
<td>$1.50</td>
</tr>
<tr>
<td>Total operational costs</td>
<td>$4986.00</td>
<td>$2341.50</td>
</tr>
</tbody>
</table>

Economic Analysis Summary

| Annual savings w/auto gun wash unit | $2344.50 |
| Capital cost purchase equipment | $600.00 |
| Payback period equipment investment | .26 years or 13.5 weeks |
Legitimacy Criteria
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• materials accumulated speculatively
• materials listed in paragraph (D)(1) of OAC rule 3745-51-02

Examples of Effective Substitutes

Example 1
A manufacturer uses methanol in the production of resins. Following the reaction, the methanol is stripped from the resin and pumped to a storage tank. The methanol is then transported to another company where it is directly used as an effective commodity product substitute for demulsifiers.

Example 2
A manufacturer uses a sodium hydroxide solution to aid in the removal of aluminum extrusions from a die casting/extrusion process. Once the aluminum oxides are cleaned out of the die cast molds, the sodium hydroxide solution containing high aluminum oxides is used in place of virgin hydroxide solutions and aluminum to assist in flocculation and pH adjustment for wastewater treatment.

If you have a question when evaluating whether a material is an effective substitute for a commercial chemical product, we are available and ready to assist you. Contact DHWM’s Regulatory Services Unit at: (614) 644-2917, or e-mail us at: jeff.mayhugh@epa.state.oh.us.

What Should I Consider as I Prepare My Comments for U.S. EPA?

You may find the following suggestions helpful while preparing your comments:

1. Explain your views as clearly as possible.
2. Describe any assumptions that you used.
3. Provide any technical information and/or data used to support your views.
4. If estimating potential burden/costs, explain how you arrived at the estimate.
5. Provide specific examples to illustrate your concerns.
6. Offer alternatives.

Another avenue for commenting on federal rules is through your trade association. Many trade associations participate in the rulemaking process. They compile comments from members and work to develop comments that present a consensus opinion. If you belong to a trade association, check with them to see if they plan to comment.

DHWM's Electronic Service Provided

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

We will issue these updates periodically to keep you informed.

This service is part of the Division of Hazardous Waste Management’s continuing efforts to improve the way we communicate with our stakeholders. This is a free service and there is no charge for subscribing. The list of subscribers is considered public information. If a request is made, we must supply the list of subscribers. However, the list is for information purposes only and the subscribers’ e-mails will not be used for any other reason.

We encourage you to share this message with your colleagues. To sign-up, please go to our Web site at: www.epa.state.oh.us/dhwm/listserv.html.
Hazardous Waste Terms

Across
5. A material is this if it is used, reused or reclaimed.
6. An enclosed device using controlled flame combustion that neither meets the criteria for classification as a boiler nor is listed as an industrial furnace.
10. Any solid, semi-solid or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.
11. A stationary device designed to contain an accumulation of hazardous waste, which is constructed primarily of non-earthed materials that provide structural support.
13. Shipping document originated by the generator.
14. The process of recovering a usable product or regenerating a material.
16. A person engaged in off-site movement of hazardous waste by air, rail, highway or water.
17. A disposal facility or part of a facility where hazardous waste is placed in or on the land and which is not a pile, land treatment facility, a surface impoundment, or the like.

Down
1. The holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of or stored elsewhere.
2. Any portable device in which a material is stored, transported, treated, disposed of or otherwise handled.
3. Any oil refined from crude oil, or any synthetic oil, that has been used and, as a result of that use, is contaminated by physical or chemical impurities. (2 words)
4. A material that is not one of the primary products of a production process and is not solely or separately produced by the production process.
7. A material is considered ___ if it is employed as an ingredient, including use as an intermediate in an industrial process to make a product. A material will not satisfy this condition if distinct components of the material are recovered as separate end products.
8. Any person, by site, whose act or process produces hazardous waste identified or listed in OAC Chapter 3745-51 or whose act first causes a hazardous waste to become subject to the hazardous waste rules.
9. Any material which is abandoned, recycled, or considered inherently waste like.
10. Any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing. (2 words)
12. Bits and pieces of metal parts and metal pieces that may be combined together with bolts or soldering which when worn or superfluous can be recycled. (2 words)
15. A material is ___ if it is used in a particular function or application as an effective substitute for a commercial chemical product.