But I Thought It Was Closed

Open Hazardous Waste Storage Containers—A Common Problem For Generators

A common problem and source of frustration to many hazardous waste generators is how to comply with the closed container requirements in the hazardous waste regulations. If you assume that loosely placing a lid on a satellite hazardous waste storage container means the container is closed, you may be in for a shock when the hazardous waste inspector arrives.

Businesses are faced with the question: "How do I properly manage hazardous wastes without implementing clumsy procedures that slow productivity or encourage improper disposal?"

The federal and Kansas hazardous waste regulations state "A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste." The intent of the regulation is to prevent the escape of vapors and accidental spillage if the container is knocked over, since the cost of preventing a spill is much less than paying for clean ups. Generally, a container is "closed" when:

(1) a closed head drum has a funnel with a closed lid or valve secured to the large bung hole or

(2) an open top drum has the lid secured and the ring bolted or clamped shut.

If your business frequently adds waste to the satellite container, you may want to consider purchasing some of the commercially available devices which allow easier access to the container while keeping the container "closed".

Storing Liquids in Closed Top Drums. If your hazardous waste is a liquid, a funnel screwed in to the bung hole with a lid attached to the funnel may be the most effective accumulation method. If you use a funnel, we recommend securing the container with a chain or strap to the wall, a building support column, or to other equipment to prevent the accidental overturning of the container. You might also consider using valve vents and/or level indicators to minimize the potential for spillage. Although we presently recommend securing the container with straps or chains, we do intend to convert this into regulation in the near future.

Storing Liquids or Solids Containing Volatiles in Open Top Drums. The drum is closed if the lid is either secured by latches or the ring is in place and the nut and bolt are tight. Otherwise, if the drum is chained or secured as above, the lid may be placed on top without the ring in place as long as there is complete contact with the rim all the way around the top, minimizing the release of vapors. In this situation, the lid must be secured at the end of the work shift. We do not recommend storing liquids in open top drums unless the liquid has high viscosity and/or contains solids which would settle to the bottom.

Solids in Open Top Drums. Non-organic solid (no liquids) hazardous waste is the easiest to manage. If the waste does not emit organic vapors, the lid should be kept closed on the container. (Continued on Page 3)
What is an "open" hazardous waste storage container? How can I satisfy the hazardous waste regulations related to open containers and still operate a safe and efficient production facility? These are questions that I faced while serving as the environmental manager for Trans World Airlines before becoming the Director of the Bureau of Waste Management in 1993. They are also likely to be questions which many of you struggle with as you try to run a business and stay in compliance. You know that some improper waste disposal could occur either down drains or in the trash if you make it too difficult for your employees to dump their waste in designated storage containers.

This issue of the Hazardous Waste Connection addresses open container regulations because it is an area of common problems and uncertainty among the regulated community. It is an area where a strict reading of the federal regulations may make it very difficult to fully comply, especially where large numbers of satellite storage containers are used and waste is frequently placed in the containers.

Even though KDHE must enforce the federal requirement to keep hazardous waste containers closed, we do have some flexibility in how we interpret what constitutes a "closed container." Our goal is to ensure that the intent of the closed container requirements are substantially satisfied by our regulatory interpretation and guidelines. This newsletter presents some of those guidelines; however, more details will soon be available through a technical guidance document to be issued later this year. These clarifications to storage requirements will ultimately be incorporated into the state hazardous waste regulations.

The information presented in this issue may not answer all your questions regarding open containers. Also, you may have some unusual circumstances at your facility which you would like to discuss with us. Please feel free to contact the Bureau of Waste Management to discuss your questions or needs in this area.

**FOCUS ON... Land Disposal Restrictions or LDRs**

Many generators get a puzzled look on their face when the hazardous waste inspector asks them about LDRs. Land Disposal Restriction (LDR) regulations were developed by the Environmental Protection Agency (EPA) in response to a 1984 Congressional mandate. The purpose for these regulations was to reduce the toxicity or lessen the mobility of the hazardous constituents in the generated wastes. These regulations have been in place since 1986. They prohibit the disposal of wastes that do not meet treatment standards into landfills, surface impoundments, waste piles, injection wells, land treatment facilities, salt dome or bed foundations, and underground mines or caves. From 1986 to present, EPA has identified specific treatment standards that must be met prior to disposing of hazardous wastes. The treatment standard may be expressed in a specific technology such as incineration, neutralization, recovery of metals, etc., or the standard may be expressed a constituent concentration in the waste. The concentration levels are determined by analytical testing using the Toxicity Characteristic Leaching Procedure (TCLP).

A LDR notification must accompany each shipment of hazardous waste that is manifested to the Treatment, Storage, or Disposal Facility (TSDF). The information on this notice must include: EPA hazardous waste number, constituents of concern, treatability group, subcategory, manifest number and waste analysis data (if available). Each LDR notification also includes a certification statement, signed by the generator, identifying whether or not the waste being shipped meets the applicable treatment standards. The LDR record keeping requirements for generators include notification, certification and waste analysis plan.

KDHE realizes these regulations are complex and difficult to comprehend. However, most hazardous waste generators in Kansas manifest their hazardous waste off-site to a Treatment, Storage, and Disposal Facility. As a service to their customers, most of these facilities provide the LDR notification/certification forms to their customers and will usually assist them in filling out the form.

The most common LDR violation cited during hazardous waste compliance inspections is the failure to retain copies of the LDR notices for the five-year period. If you don't already do so, it is a good idea to attach the LDR notices with the corresponding manifests. Keeping a file drawer or other storage area for copies of manifests, LDR notices, and training records makes it easier to find those documents when a hazardous waste inspector calls.

Recently, the federal LDR regulations were revised, and the changes should be adopted by KDHE by the year 2000. The changes include: (1) the generator notifying once instead of each shipment; (2) keeping the LDR records for 3 years instead of 5; (3) eliminating the requirement for treatment standards on the LDR notices; and (4) changing some treatment standards. Until then, KDHE will continue to inspect for the existing requirements.
Between October 1, 1996 and September 30, 1997, KDHE investigated 286 complaints and conducted over 654 inspections at solid and hazardous facilities. The chart below shows the type and number of complaints investigated during this time period. Although no business appreciates having a complaint lodged against it, KDHE must investigate every complaint to be sure there is no threat to people or our environment. Primary reasons why people file a complaint include: poor housekeeping at a business, especially if there are numerous empty drums or containers around it; disgruntled employees; and disputes with neighbors.

Complaint Investigations

<table>
<thead>
<tr>
<th>Complaint Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Waste</td>
<td>199</td>
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<tr>
<td>Hazardous Waste</td>
<td>71</td>
</tr>
<tr>
<td>Tires</td>
<td>16</td>
</tr>
</tbody>
</table>

During this same time, KDHE inspected 336 facilities for compliance with the hazardous waste regulations. By generator type, these were 35 EPA Generators (over 2200 pounds per month), 116 Kansas Generators (55 to 2200 pounds per month), and 94 Small Quantity Generators (less than 55 pounds per month). Those businesses that either do not generate hazardous waste or have never notified that they do generate hazardous waste are called Non-Notifiers and 105 were inspected. Twenty-one TSDs (facilities which have or are subject to a hazardous waste permit) were inspected. KDHE has nine inspectors for hazardous waste facilities and six inspectors for solid waste and tire facilities. From the above inspections, formal enforcement action was initiated against nine hazardous waste generators with the total assessed penalty amount of over $220,000.

Hazardous Waste Inspection Summary

<table>
<thead>
<tr>
<th>Generator Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSDs</td>
<td>120</td>
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<tr>
<td>EPA</td>
<td>100</td>
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<tr>
<td>Small Quantity Kansas</td>
<td>60</td>
</tr>
<tr>
<td>Non-Notifiers</td>
<td>40</td>
</tr>
</tbody>
</table>

Roll-off Containers

**Roll-Off Containers.** Hazardous wastes stored in roll-off containers such as sludges, dusts, etc. can present difficulties in maintaining a closed container. If the roll-off has an attached lid that opens and closes and there is a tight seal around the closed lid, that container would be considered closed. If the roll-off has an open top, use of a tightly secured tarp over the top would satisfy the closed container requirements as long as the waste does not emit organic vapors.

We hope the above guidelines are helpful in assisting you to determine if your containers are closed. Remember, the final call is made by the hazardous waste inspector at the time of the inspection. If you have a question about your present practices, please call either your local district office or the Topeka Office for further assistance.

A Technical Guidance Document is being prepared to assist generators in understanding what is necessary to be in compliance with the closed container regulation. If you would like a copy of this guidance once it has been finalized, you can call (785) 296-1600.

**6 Ways to Avoid Getting a Violation Cited:**

6. Train your employees on how to properly handle and dispose hazardous wastes.

5. Promptly provide the inspector with all requested information.

4. Learn and keep up with hazardous waste regulations, call KDHE when you have questions or concerns.

3. Be current on what’s happening in the shop, get out of your office.

2. Establish a filing system and avoid keeping your records scattered throughout the building.

1. Document everything.
Upcoming Events
Household Hazardous Waste Conference, Great Bend, Kansas, February 10-11, 1998
Recycling & Composting Works Conference, Lindsborg, Kansas, March 24-26, 1998

Important Hazardous Waste (HW) Program Phone Numbers

Kansas Department of Health & Environment (KDHE)  
EPA RCRA Hotline ........................................... (800) 424-9346

Gary R. Mitchell, Secretary ................................... 785/296-0461
KDHE Public Advocate ........................................ 785/296-0669
KD - Division of Environment  
Ronald Hammerschmidt, PhD, Director .................... 785/296-1535
toll free for long distance ................................. (800) 357-6087
KD - Bureau of Waste Management ................... 785/296-1600
Bill Bider, Director ........................................... 785/296-1612
Mary Bitney, Section Chief ................................ 785/296-1603
John Mitchell, Section Chief ............................... 785/296-1608
Dennis Degner, PhD, Section Chief ......................... 785/296-1601
Mostafa Kamal .................................................. 785/296-1609
Ron Smith .......................................................... 785/296-1604
David Branscum ................................................ 785/296-6898
George McCaskill .............................................. 785/296-1606
Linda Prockish ................................................... 785/296-0005
Mark Duncan ...................................................... 785/296-1614
KD - District Office Inspectors/Engineers  
Northeast - Lawrence ......................................... 785/842-4600
Southwest - Chanute .......................................... 316/431-2390
North Central - Salina ....................................... 785/827-9639
South Central - Wichita ..................................... 316/337-6020
Northwest - Hays ............................................... 785/625-5663
Southwest - Dodge City ..................................... 316/225-0596

HOW MAY WE DIRECT YOUR CALL.....
EPA ID numbers ........................................... David Branscum
Compliance Assistance Outreach Program .............. Mary Bitney
General HW Generator questions ........................... Ron Smith
Groundwater Monitoring .................................... Mark Duncan
HW Complaints ............................................... Mary Bitney or Ron Smith
HW Notification questions ................................. David Branscum
HW Permits .................................................. Mostafa Kamal
HW Regulation information ......................... John Mitchell or George McCaskill
PCB, TSCA and/or CERCLA .............................. Linda Prockish

University of Kansas (KU)  
SBEAP - Resource Library ................................. 785/864-3968
SBEAP - Hot Line ............................................. (800) 357-8898

Kansas State University (KSU)  
Pollution Prevention Institute/Small Business
Environmental Assistance Program (SBEAP) ........ 785/532-6501

How May We Direct Your Call...