

Hazardous Waste - What is it???

Easy questions to ask are sometimes the most difficult to answer. "What is hazardous waste?", is a question that takes about twenty five pages to fully explain in the Department of Environmental Protection's *State of Maine Hazardous Waste Management Rules*. In its *Handbook for Hazardous Waste Generators*, the DEP condenses the definition to a more easily digestible 3 pages. For our purposes, the one-sentence definition provided by the EPA in its *Household Hazardous Waste (HHW) Management* manual will suffice for starters:

“Hazardous Waste is waste that can catch fire, react, or explode under certain circumstances, or that is corrosive or toxic.”

The document continues... “The Environmental Protection Agency (EPA) has set stringent requirements for the management of hazardous waste generated by industries. Some HHW can pose risks to people and the environment if it is not used, stored carefully and disposed of properly. However, Congress chose not to regulate it [HHW] because regulating every household is simply too impractical.”

Hazardous Waste-Whose Responsibility?

Some hazardous wastes are products that were made for a necessary purpose but have become unwanted. Others are by-products of industrial, commercial or household processes. The question, "Whose responsibility?" is typically an easy one to answer. It's like the childhood game where a ball is passed around in a circle while a song is sung. When the song is over, the one caught holding the ball is out. There are exceptions, but in general, if you are in possession of hazardous waste, you are responsible for it.

An example is a CFC-containing appliance such as a refrigerator. The homeowner is responsible until it is received by a transfer station. The municipality is then responsible until it is picked up by a metals contractor. The contractor, as the final link in the disposal chain, is then responsible to remove any refrigerant that remains in the unit. There is a lesson here. The lesson is: understand your financial, managerial and ethical responsibilities before receiving an item that may contain hazardous material.

Financial responsibilities are usually just the costs of normal disposal. If a hazardous waste is spilled however, they may also include costs of clean-up, disposal and perhaps even penalties. During a meeting at HCPC, Karen Knuuti of the DEP advised municipal officials not to receive hazardous waste at their facilities as a general practice. Once accepted, it becomes the town's responsibility. It is difficult and expensive to get rid of properly.

Managerial responsibilities include appropriate:

- facility licensing and personnel training



- daily log keeping and annual reporting
- materials handling and storage
- labeling, packaging, and inspection
- manifesting, transportation and disposal
- spill reporting and contingency planning

Ethical Responsibilities with regards to hazardous waste involve personal decisions in areas not decided by current law. Knowledge of products that we use and concern for the health and heritage of ourselves and others can help guide us to right decisions. An example of an area where ethics come into play is with *Household Hazardous Waste (HHW)*. HHW includes many of the same hazardous substances as typical *Hazardous Waste*, but because it is generated in homes, it is not regulated in the same way.

Household Hazardous Waste-What's the problem?

The problem of course is that HHW is hazardous. This characteristic is further described in the "What is it?" article. In the Maine State Planning Office's (SPO's) booklet *Managing Household Hazardous Waste*, several major concerns are described. Here is a summary:



- **Toxic Releases.** HHW which is disposed of in Hancock County with Municipal Solid Waste (MSW), ends up being incinerated at PERC. High tech scrubbers do their best to rid the exhaust of toxins, but some escape. For example, mercury and lead in sufficient doses can cause birth defects or serious illness.
- **Solid Waste Facility Risks.** With HHW in the mix, transfer station workers may be exposed to dangerous materials. In other parts of Maine, HHW diversion from landfills helps protect their liners from attack by caustic substances and groundwater from pollution.
- **Wastewater Problems.** HHW which is dumped down drains ends up in your back yard septic system or at a municipal treatment plant. Toxins can interfere with septic waste decomposition. They may also end up in groundwater, sludge or nearby waterbodies.
- **Groundwater Contamination.** Improperly managed HHW may end up in soil, wells or waterbodies. Water may become unfit for drinking or other uses.
- **Public Safety.** HHW stored in dwellings pose threats to residents and the public. Noxious gases can seep from volatile materials. Extremely dangerous conditions to fire fighters can exist when a home is ablaze. Toxins are released into the environment from HHW during a fire. Leaking or spilled containers pose other risks. If certain substances, such as household ammonia and bleach are mixed together, deadly fumes are the result. And did you know that pool chlorine mixed with a soft drink results in an explosion?!

Hazardous Waste- *What can we do about it?*

Happily for local governments, the federal and state jurisdictions have taken on the problem of hazardous waste in a serious way. Commercially generated substances are regulated and enforcement is in place. (The question of adequate funding is of course another matter.)

In Maine, there is an additional layer of responsibility removed from municipal efforts. Those in the federal classification CESQG, (Categorically Exempt Small Quantity Generators) are not "categorically exempt" here. This is because state law is more restrictive than federal. Commercial enterprises generating very small quantities are regulated as SQGs (Small Quantity Generators). In fact, all commercial generators in Maine, regardless of quantities, are forbidden to take part in HHW collections. For information how to dispose of waste not accepted in HHW collections, see www.maine.gov/dep/rwm/hazardouswaste/

When we talk about doing something about hazardous waste at the local level, our focus is on the household variety. Strategies for handling HHW sound familiar:

- Reduce. The best way to diminish amounts of HHW that need disposal is to promote the use of alternative products. A good rule of thumb is to use whatever will do the job without overdoing the job. (You don't need a 10 lb. sledge hammer to kill an ant.) For example, mild detergents plus "elbow grease" will often do where stronger ones are commonly used.

Other ways of employing less hazardous means are: using latex instead of oil based paint where practical, cedar products instead of moth balls and mechanical devices instead of caustic chemical drain cleaners.

- Reuse. "Reuse" takes on a slightly different meaning for HHW. Unlike paper bags, most products of this sort can clearly be used only once. "Reuse" refers to finding a user for unused product that is no longer wanted such as leftover paint that could be used by a community group. This is especially beneficial if the new owner now doesn't need to obtain the same thing elsewhere. It is not recommended to "reuse" some substances in this manner. Some products are obsolete because they are too dangerous. DDT and other pesticides provide a good example.
- Recycle. Many hazardous materials should be viewed as valuable resources to be recovered rather than as "wastes". They are dangerous to release into the environment, but are also ingredients with important uses for industry. An example is old motor oil. It is commonly viewed as a waste, but can be reused as fuel or recycled by re-refining it for use as a lubricant.

These ideas are wonderful, but what about the stuff that's already out there that needs to be disposed of? It is believed that the average home is harboring ten gallons of HHW. There are several options:

The HCPC and Acadia Disposal District normally sponsor an annual collection for the Greater Ellsworth and Mount Desert Island area respectively. Information on current collections can be found at: www.hpcme.org/waste.html

The Maine DEP has recently coordinated free collections of batteries and mercury. No collections are planned currently, but watch for future opportunities

The Board of Pesticide Control has sponsored annual collections of obsolete pesticides and herbicides such as DDT, chlordane, lead arsenate and 2,4,5-T. They have focused on large generators such as farms and pesticide applicators, but have also included households and small businesses. Interested? Call 287-2731.

The MRRA Co-op's connection with the NERRA (New England Resource Recovery Association) may provide opportunities for towns to deal with "Universal Waste" and perhaps HHW. Universal Wastes are those of moderate toxicity generated by a "vast community" which are typically discarded with regular trash. Examples: pesticides, batteries and mercury thermostats. Call 942-6772.

Permanent collection sites for specific materials are also a possibility. Lower prices can often be found for items such as antifreeze, latex paint, used motor oil and various types of batteries when collected and sent to recycling specialist companies. Transfer stations that collect these materials need to make sure that they are reflected in their facility's operating plan or make appropriate revisions.

HCPC will be happy to assist any community in our service area to explore and develop these options. Call Tom at (207) 667-7131.