Household Hazardous Waste—An Overview of Important Topics

November 21, 2019

We protect what matters.
Overview

➢ Why are Household Hazardous Waste Collection Programs Important?
➢ Program Operations
➢ An Overview of How the Regulations Apply to HHW
➢ Public Awareness
➢ Local Options for Program Manager Education, Training Through Networking
WHY HHW Programs Are Important

WHY?

➢ Prevent environmental contamination caused by improper disposal

➢ Prevent property damage caused by improper disposal

➢ Prevent injuries to people
What is Hazardous Waste?

“Waste that is dangerous or potentially harmful to our health or the environment.” - EPA

IGNITABLE

REACTIVE

CORROSIVE

TOXIC
Why HHW Programs Are Important

Prevent Illegal Dumping
Why HHW Programs Are Important

Prevent Property Damage
Why HHW Programs Are Important

City of Buffalo, NY
HHW Fire Incident
Why HHW Programs Are Important

City of Kilgore, Texas
HHW Trash Truck Fire

BRIDGETON, Missouri
Why HHW Programs Are Important

• HHW is a material that could put human health or the environment at risk.

• Household hazardous materials constitute the most direct and frequent way the public is exposed to hazardous waste.
Why HHW Programs Are Important

Facts Poison Exposures in the United States:
• One poison exposure every 14 seconds.
• 2,159 million poisonings reported in 2016
• Majority of poisonings involve everyday household items such as cleaning supplies, medicines, cosmetics and personal care items.
• Poisonings resulting in serious injury or death: 8.8%

Children and Poison:
• 46 percent of poisonings occur in children under the age of six.

### Why HHW Programs Are Important

<table>
<thead>
<tr>
<th>Category</th>
<th>Year: 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Poison Exposures</td>
<td>2,159,032</td>
</tr>
<tr>
<td>Animal Poison Exposures</td>
<td>54,019</td>
</tr>
<tr>
<td>Confirmed Non-Exposures</td>
<td>6,776</td>
</tr>
<tr>
<td>Info Calls - Drug ID</td>
<td>137,880</td>
</tr>
<tr>
<td>Info Calls - Other</td>
<td>352,335</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,710,042</strong></td>
</tr>
</tbody>
</table>
## Why HHW Programs Are Important

Reason by Age Group (2016, column percents)

<table>
<thead>
<tr>
<th></th>
<th>&lt;6 Years</th>
<th>6-12 years</th>
<th>Teens</th>
<th>Adults</th>
<th>All Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unintentional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>91.3%</td>
<td>42.3%</td>
<td>10.9%</td>
<td>14.4%</td>
<td>51.6%</td>
</tr>
<tr>
<td>Therapeutic Error</td>
<td>6.0%</td>
<td>25.7%</td>
<td>9.8%</td>
<td>19.7%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Environmental</td>
<td>0.8%</td>
<td>3.7%</td>
<td>2.3%</td>
<td>4.4%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Misuse</td>
<td>0.5%</td>
<td>9.7%</td>
<td>6.8%</td>
<td>12.6%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Bite/sting</td>
<td>0.5%</td>
<td>3.3%</td>
<td>2.1%</td>
<td>3.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Food Poisoning</td>
<td>0.3%</td>
<td>1.1%</td>
<td>0.8%</td>
<td>1.7%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Occupational</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.9%</td>
<td>3.1%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Unknown</td>
<td>0.0%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0.2%</td>
</tr>
<tr>
<td><strong>Subtotal Unintentional</strong></td>
<td>99.4%</td>
<td>85.9%</td>
<td>33.8%</td>
<td>59.7%</td>
<td>77.8%</td>
</tr>
<tr>
<td><strong>Intentional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspected suicide</td>
<td>0.0%</td>
<td>2.8%</td>
<td>46.1%</td>
<td>21.5%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Misuse</td>
<td>0.0%</td>
<td>6.1%</td>
<td>6.3%</td>
<td>4.7%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Abuse</td>
<td>0.0%</td>
<td>0.4%</td>
<td>6.8%</td>
<td>4.4%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Unknown</td>
<td>0.0%</td>
<td>0.9%</td>
<td>2.3%</td>
<td>1.7%</td>
<td>0.9%</td>
</tr>
<tr>
<td><strong>Subtotal Intentional</strong></td>
<td>0.0%</td>
<td>10.2%</td>
<td>61.5%</td>
<td>32.3%</td>
<td>18.1%</td>
</tr>
<tr>
<td>Adverse Reaction</td>
<td>0.3%</td>
<td>2.0%</td>
<td>2.3%</td>
<td>5.1%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>0.2%</td>
<td>1.9%</td>
<td>2.3%</td>
<td>1.4%</td>
<td>1.6%</td>
</tr>
</tbody>
</table>
Cosmetics and personal care products lead the list of the most common substances implicated in pediatric exposures (children younger than 6 years, NPDS, 2016). Cleaning substances and pain medications follow. These exposures are nearly always unintentional.

Program Operations

Regulatory Compliance & Program Operations

The following regulations apply Household Hazardous Waste program operations, both for permanent facilities and 1-day mobile event programs:

- RCRA (Resource Conservation & Recovery Act)
  https://www.epa.gov/rcra
- DOT (Department of Transportation)
  https://www.compliancetrainingonline.com/resources.cfm
- 29 CFR 1910.120 (OSHA, Occupational Safety & Health Act)
  https://www.osha.gov/laws-regs/regulations/standardnumber/1910/
- TCEQ (Texas Commission on Environmental Quality)
Your responsibility with RCRA

- Identify & Evaluate All Waste Streams
- Properly Collect, Store & Dispose of the Waste
- Prepare & Save Documentation
- Know Emergency & Spill Response Procedures
- Train Employees
Regulated Waste – Cradle to Grave

- Waste is generated
- Characterized and segregated
- Collected and transferred to a Stericycle facility
- Processed and treated for end disposal
Top Violations

- **Proper Labeling**: 26%
- **EPA ID #’s**: 14%
- **Program Management**: 11%
- **Manifest Recordkeeping**: 10%
- **Program Documentation**: 9%
- **Container Management**: 8%
- **Oil / Filter Management**: 8%
- **Exceeding Accumulation Date**: 6%
- **Emergency Plan Management**: 5%
- **Employee Training**: 4%
Program Operations

Regulatory Compliance & Program Operations

The following are examples of TCEQ required forms:

- 45 Day Notification
- Facility Registration/Notification (for permanent facilities)
- Core Data Form (for permanent facilities)
- Storage Extension Request form
- Annual Report Form
Program Operations

Regulatory Compliance & Program Operations

An Overview of How the Regulations Apply to HHW Program Operations

➢ 1-Day event/mobile collection programs
   a) 45 Day Notification submitted to TCEQ
   b) Generator status
   b) Waste stream waste profiles
   c) Waste manifests
   d) Shipping labels

➢ Permanent HHW Facility
   a) 45 Day Notification
   b) Facility registration
   c) Same Waste stream profiles, manifests and shipping labels as 1-Day event
Program Operations

osures are nearly always unintentional.
Program Operations

HAZARDOUS MATERIALS LABELING CHART

GENERAL GUIDELINES ON USE OF LABELS

1. The shipper must attach the appropriate label(s) to each package of hazardous material offered for shipment unless excepted from labeling requirements. (§172.404)
2. If the material in a package fits more than one hazard classification, the package must be labeled for each hazard. (§172.404)
3. When two or more hazardous materials of different classes are packed in the same packing in order to reduce the outside of the package or enclosure must be labeled for each class of hazard material involved. For exceptions see §172.404. (§172.404)
4. Radiactive materials requiring labeling must be labeled with opposite sides of the package. (§172.405)
5. A label should only be applied to a package containing a hazardous material if it represents the hazard inside. (§172.405)
6. No one may offer or transport a package bearing any marking or label which by its color, design, or shape could be confused with or conflict with a hazardous materials label. This does not prohibit the use of labels in conformance with UN Recommendations, IMDG Code, ADR Technical Instructions, TDG Regulations, or ADR. (§172.404)

HOUSEHOLD HAZARDOUS WASTE
Exempt from EPA regulations per 40 CFR part 261.4(b)(1)

Generator - EPA ID: TXD 074 196 338

PHILIP RECLAMATION SERVICES, INC
4050 HOMESTEAD ROAD
HOUSTON, TX 77028

Proper D.O.T. Shipping Name

HOUSEHOLD HAZARDOUS WASTE
Accumulation Date: 05/06/2010

UN1325
Flammable Solid
Organic

UN0001
HAZMAT

Generator - EPA ID: TXD 074 196 338

PHILIP RECLAMATION SERVICES, INC
4050 HOMESTEAD ROAD
HOUSTON, TX 77028

Proper D.O.T. Shipping Name

HOUSEHOLD HAZARDOUS WASTE
Accumulation Date: 11/08/2019

UN1325
Flammable Solid
Organic

UN0001
HAZMAT

Phone: (713) 674-2406

Manager - (713) 674-2406
Program Operations

<table>
<thead>
<tr>
<th>Program Area</th>
<th>Program Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Operations</td>
<td>osures are nearly always unintentional.</td>
</tr>
</tbody>
</table>

[Table Image]

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Options to Meet Your Goals!

- Waste Minimization
- Recycling
- Fuel Blending
- Energy Recovery
- Treatment
- Incineration
- Landfill

CUSTOMER FIRST!

- **Multiple Sustainability Options**
  Customized to help you meet your corporate responsibility goals

- **No End-Disposal Ownership**
  End-disposal truly based on your needs

- **Waste Stream Customization**
  Selection of processing by waste stream to fit your budget
Public Awareness

HHW Collection Programs and Public Awareness should go “hand-in-hand”

- **HHW is a material that could put human health or the environment at risk.**

- **Household hazardous materials constitute the most direct and frequent way the public is exposed to hazardous waste.**
Public Awareness

HHW Collection Programs and Public Awareness should go “hand-in-hand”

Almost all HHW collection programs are government sponsored with some being sponsored by non-profit organizations. Collection programs have direct contact with residents and can/should and do serve as the conduit for informing the public about proper household chemical management and household hazardous waste disposal.

Common channels for disseminating information to the public are:
- information packets given to residents at collections and permanent facilities
- internet and government web sites/pages
- information flyers
- radio public service announcements
- newspaper advertisements and articles/stories
- logos and mascots
- utility bills
Public Awareness

Samples of public awareness media
Public Awareness

Samples of public awareness media
Public Awareness

Samples of public awareness media


https://www.houstontx.gov/solidwaste/esc.html

http://baycitytribune.com/news/article_7eab8bc2-f01a-11e9-bfc6-5b70fdbc66e7.html
Public Awareness

Samples of public awareness media


Local Options for Program Manager Education, Training Through Networking

- Houston-Galveston Area Planning Council
- RCRA/DOT Trainings
- 8 Hour HAZWOPER Refresher
- 40 Hour HAZWOPER (Additional)
- 24 Hour HAZWOPER
- Facility Design
- Identification of Unknowns
- CHMM Prep Course

https://nahmma.org/index.php