Solid Waste in New Hampshire

Tara Mae Albert, SWOT Coordinator
Solid Waste Compliance Assurance Section
Why is Solid Waste Regulated?

- It’s the Law!
  - RSA 149-M is in Title X
  - Statement of Purpose
Why is Solid Waste REALLY Regulated?
Proper and Integrated Management of SW Can...

- Protect human health;
- Preserve the natural environment; and
- Conserve precious and dwindling natural resources.
How is Solid Waste Regulated?

RSA 149-M
(aka The Law)

Env-Sw 100 – 2000
(aka Solid Waste Rules)
Solid Waste Facilities in NH
Waste Management Hierarchy

Least Preferred

Source Reduction

Recycling and Reuse

Composting

Waste-to-Energy

Incineration (no recovery)

Landfilling

Most Preferred
Waste Reduction Goal: 40% by 2000

- Concern about environmental and economic issues pertaining to solid waste in landfills and incinerators
- Reserve landfill and incinerator capacity for solid wastes that cannot be reduced, reused, recycled or composted
- Achieve weight diversion through source reduction, recycling, reuse, and composting, or any combination of such methods
- Discourage use of landfills or incinerators for recyclable materials

RSA 149-M:2
Current SW Permits in NH

- **Landfills**
  - 15 Lined (7 Active)
  - Over 350 Unlined (1 Active)

- **Incineration (no recovery)**
  - 1 Operating (In permitting process)
  - 9 Non-Operating

- **Incineration (Waste-to-Energy)**
  - 1 Operating
  - 1 Non-Operating

- **Composting**
  - 5 Operating
  - 10 Non-Operating

- **Recycling and Reuse**
  - Municipal TS, Scrap Metal, Asbestos, Single Source Recyclers, etc. (242 Operating)

- **Source Reduction**
  - Source Reduction means there is no facility necessary
NH’s 6 Active Lined Landfills

- North Country Environmental Services
- Lower Mt. Washington Valley
- Lebanon Regional Solid Waste Facility
- TLR-III Refuse Disposal Facility
- Four Hills
- Mt. Carberry
How Much Waste We Generate
(Per EPA 2014)

- 4.6 pounds per person per day
  (Equals)
- 1,679 lbs per person per year
  (Equals)
- 0.84 tons per person per year
- Multiply that with the population of NH: 1.3 Million
- 1,091,350 Tons of MSW generated per year in NH

And that’s just MSW! Some estimate that, as a state, we each generate one ton of waste every year…1.3 M tons!
Total MSW Generation (per EPA 2014)

258 Million Tons (before recycling)

- Paper 27%
- Glass 4%
- Metals 9%
- Plastics 13%
- Other 3%
- Food 15%
- Yard Trimmings 13%
- Rubber, Leather & Textiles 10%
- Wood 6%
- Other 3%
Management of MSW
(NH values per 2014 AFRs)

- Export: 6%
- Recycle: 11%
- Waste-to-Energy: 19%
- Landfill: 64%

Total NH Solid Waste is 1 Million Tons (excludes imports)

***Approximate values.***
Estimated Imports to NH (per 2014 AFRs)

529,000 Tons

MA 86%
ME 8%
VT 6%
RI <1%
CT <1%

***Approximate values.
National Recycling Rates of Selected Products (EPA 2014)

- Lead-Acid Batteries: 99.0%
- Steel Cans: 70.7%
- Newspapers & Mechanical Papers: 68.2%
- Yard Trimmings: 61.1%
- Aluminum Beer & Soda Cans: 55.1%
- Tires: 40.6%
- Selected Consumer Electronics: 41.7%
- Glass Containers: 32.5%
- PET Bottles & Jars: 31.2%
- HDPE (White Translucent Bottles): 29.5%
The Business of Solid Waste in NH

- 5,000 employees (public and private)
- $290 million a year
Out with the *Why* and in with the *What*?

Defining Solid Waste
What is Solid Waste?

- *Putrescible* material
- Refuse
- Residue from an air pollution control facility
- Other discarded or abandoned material

It also includes **solid, liquid, semisolid** or **contained gaseous material** resulting from industrial, commercial, mining, and agricultural operations, and from community activities.

“Putrescible” - liable to become rotten or foul
Examples

- Recyclable materials
- Asphalt shingles
- Municipal Solid Waste
  - *Household Garbage*
- Bulky waste
- Electronic waste
- Propane tanks
- Construction & Demolition Debris
What is NOT Solid Waste?

- Hazardous waste
- Solid or dissolved materials in irrigation return flows
- Cut or uprooted tree stumps buried on-site
- Municipal and industrial discharges
- Nuclear and nuclear by-product waste
What is *NOT* Solid Waste?

- Septage or sludge
- Yard waste
- Certified Waste-Derived Products
- Bodies of dead persons
When does a Solid Waste Stop Being a Solid Waste?

- Products that are made from “waste”
- Items are certified either
  - By Rule or;
  - Through an application process

For example, your binders today are made from recycled materials. They were once a solid waste!
Wastes that Are NOT Solid Wastes

Hazardous Waste Management including Used Oil and Universal Wastes
Tim Prospert, HWMB
CAUTION

THIS SIGN HAS SHARP EDGES

DO NOT TOUCH THE EDGES OF THIS SIGN

ALSO, THE BRIDGE IS OUT AHEAD
OVERVIEW

HAZARDOUS WASTES

“Typical” Hazardous Wastes
Managed under tough rules

Used Oil Being Recycled
Still Hazardous but usually managed under easier rules

Universal Waste
Still Hazardous but usually managed under easier rules
“Typical” Hazardous Waste

I’m NOT Used Oil, and NOT Universal Waste
Regulations

Households
Exempt...until Municipality takes it

ALL Businesses
ILLEGAL for Municipality to accept
4 Steps to Handle HazWaste

1. Identify
2. Notify
3. Store
4. Ship
1. **Identify** if the waste is hazardous

- **Ignitable** → I.
- **Corrosive** → C.
- **Reactive** → **Real**
- **Toxic** → **Trouble**
Ignitable wastes...

Catch fire VERY easily

- Oil/solvent-based paint
- Solvents and many spray cleaners
- Aerosol cans with flammable propellants still inside
- Alcohol
- Adhesives
- Roofing cement?
- HTH pool chemicals...
Corrosive wastes...

- Waste with a very low pH (acid)
- Waste with a very high pH (caustic, or basic)
  - Pool acid
  - Battery acid
  - Muriatic acid
  - Drain Cleaners (acid)
  - Drain Cleaners (basic)
  - Lye (basic)
  - Some other cleaners
  - Paint strippers
Reactive wastes…

Things that explode

- Dynamite
- Fireworks
- Military (gunpowder, bullets, grenades…)
- Old ether, picric acid

Things that react badly with water or air

- Might be packaged in oil or water
Toxic wastes

- Wastes that contain too much of certain dangerous chemicals
  - Oil/solvent-based paints
  - Some solvents and spray cleaners
  - Prescription medicines
  - Pesticides
  - Paint strippers
  - Roofing tar
  - Adhesives
OK...You have IDENTIFIED some Hazardous Waste

What Do You Do?
4 Steps to Handle HazWaste

1. Identify
2. Notify
3. Store
4. Ship
2. Notify DES of your situation

271-2921

or

hazwastereporting@des.nh.gov
4 Steps to Handle HazWaste

1. Identify
2. Notify
3. Store
4. Ship
3. **Store** the waste safely

- On a leak-proof surface
- Closed
- Not near Floor Drains
- Keep incompatibles apart

*Bleach And Ammonia Don't Mix!*
Properly Label Containers

The words “Hazardous Waste”

Words to identify the contents of container or tank

Labels must be accessible (fully visible)
Labels must be visible

Incorrect

Correct
4 Steps to Handle HazWaste

1. Identify
2. Notify
3. Store
4. Ship
4. Ship Out the Hazardous Waste
Get the Waste Off-site IN 90 DAYS!
For Help!

Hazardous Waste Hotline
1-866-HAZWAST
1-866-429-9278
Make Your Old Man Proud
Recycle Used Oil

USED OIL

[American Flag]

[Logo of New Hampshire State Seal]
Got “Used Oil”?  

- KEEP IT THAT WAY!!
- Don’t mix anything else in!
  - Gasoline
  - Solvents
  - parts washer solution
  - Paint
  - Anything in a spray can
- IT would be BAD!
What is NOT “used oil”? 

- Anything used as a solvent or cleaner
- Anything used as wood preservative
- Oily water with less than 5% oil
How is used oil managed?

Keep containers and tanks **closed**. Why?

- Limits or prevents spills.
- Keeps sources of ignition out.
- Keeps vapors in.
- Forces employees to take a moment to recognize if they are adding the wrong stuff to the container or tank.
Use only containers in **good condition**

USDOT approved

**YES!**  **NO!**
Mark Containers...

USED OIL FOR RECYCLE

Used Oil for Recycle

RIGHT

Waste Oil

WRONG
Don’t give Used Oil to the guy down the street  Or take it from him either!!!

- Transfers within departments of the same town are OK (Transfer Station to DPW, etc…)
- Transfers to different owners are regulated
Manage in a way to prevent spills, leaks and seepage

- Little spills and drips add up to big trouble
  - Thousands of dollars to clean up oily dirt!
- Keep used oil on a leak-proof surface
  - Concrete or asphalt, usually
Outdoor Storage Requirements

- Must be in secondary containment
- 10% bigger than the biggest container
- “Kiddie” Pool?
- Cut open tank?
- Concrete?
- Other ideas?
- Keep away from surface water and wells
Used Oil Outdoors

Keep containers, tanks, and secondary containment covered from rain and snow.
CONCRETE CONTAINMENT

No Wall Here

And No Wall Here
Help!

Dean Robinson, HHW Coordinator

271-2047
Grants for YOU!

Used Oil Coordinator

1-888-TAKEOIL
Technical/Rule Questions
Universal Waste

What is it?
How to Manage it?
Where to Get Rid of it?
Types of NH Universal Waste

- Auto Antifreeze
- Some Batteries
- Cathode ray tubes
- Some Lamps
- Mercury-containing devices
- Some Pesticides
Rules for USED Auto Antifreeze

- Store in a container or tank that is closed
- Good condition

May contain heavy metals and cancer-causing benzene
Batteries

Nickel-Cadmium (Ni-Cd)
- Button cell

Lithium
- Lead-acid

Dangerous for Heavy Metals, fire hazard, and sometimes acids
Cathode Ray Tubes (CRTs) contain lead.

Arrgghh! Computers Bad! Parker Angry!!
Types of Universal Waste Lamps

- Fluorescent
- Mercury vapor
- High pressure sodium
- H.I.D.

THEY CONTAIN **MERCURY!**
Universal Waste Lamps

Do **NOT** crush the lamps on purpose.

It is **ILLEGAL**!
Mercury-containing devices

Thermostats
Relays
Switches
Thermometers

Store in a labeled container
Some pesticides are considered universal waste

The NH Department of Agriculture keeps a list of which pesticides are universal wastes

Many pesticides are still “typical” hazardous wastes with strict regulations
Universal Waste Management Standards

Label or mark containers – 3 choices.

- Waste Antifreeze
- Universal Waste Lamps
- Used Batteries

![Universal Waste Labels](image-url)
Cover universal waste containers stored outdoors.
Universal Waste Management Standards

- Train employees on proper handling.
- In-house training is fine.

Teach them:
- What is the danger?
- How do I handle these wastes?
Universal Waste Management Standards

Do not store for more than **ONE YEAR**. Be able to prove you are shipping these off-site.
Help!

Hazardous Waste Hotline
1-866-HAZWAST
1-866-429-9278
SUMMARY

HAZARDOUS WASTES

“Typical” Hazardous Wastes
Managed under tough rules

Used Oil Being Recycled
Still Hazardous but usually managed under easier rules

Universal Waste
Still Hazardous but usually managed under easier rules
Abandoned Household Hazardous Waste

Dean F. Robinson, Jr., Coordinator
Household Hazardous Waste Program
What is Household Hazardous Waste?

Unwanted homeowner products that have the same qualities as a hazardous waste
What is Household Hazardous Waste?

- Cleaners
- Paint (solvent based)
- Pesticides

- Lubricants
- Drain Cleaners
- Fertilizers (some)
Businesses are HW generators; must obey the HW Rules.

They may not throw HW in the trash.

Homeowners are not covered by the HW Rules.

It’s simply impossible to enforce disposal laws on 1.2 million people.
1. NH does not recognize the EPA’s HHW exemption for municipal solid waste facilities

2. If anyone at your facility knowingly accepts HHW, you are the generator of that waste

3. Your facility/site **MUST** have a **HW generator number & training** to knowingly accept HHW

4. It is legal for residents to place HHW into the solid waste stream
Why should I do this?

AFTER FLOOD CLEAN UP
What if I have HHW?

- Call DES to get a HW generator number & training

Then:

- Call a hazardous waste hauler to come get it
  - or
- Segregate and manage (ICRT) until your HHW collection
  - or
- Self transport to another town’s HHW collection
  - or
- Self transport to a Treatment Storage Disposal Facility (TSDF)
Self Transport

Exemption Env-Hw 507.03 (b) allows self transport of HHW "one time."
“We Can’t Take That!”
What’s the easiest Thing I Can Do?

To prevent this from happening...
What’s the #1 Thing?

Give your customers options!

- Hand Outs -
- Signs -
- Links -
- Keep it Local -
- Other?
Local: Batteries

<table>
<thead>
<tr>
<th>Batteries Plus Bulbs</th>
<th>Manchester, NH</th>
<th>(603) 621-0100</th>
<th>Open until 8:00 PM</th>
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<td>Batteries Plus Bulbs</td>
<td>Newington, NH</td>
<td>(603) 433-1677</td>
<td>Open until 8:00 PM</td>
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<td>Nashua, NH</td>
<td>(603) 883-5060</td>
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<td>Batteries Plus Bulbs</td>
<td>Salem, NH</td>
<td>(603) 685-0293</td>
<td>Open until 8:00 PM</td>
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Local: Batteries

![Image of recyclable batteries and a map showing recycling locations in Alton, NH, Gilmerton, NH, and Moultonborough, NH.](image-url)
Local: Bulbs

Some Big Box Stores

Mom & Pop Hardware Stores

Bulbs
Ballasts
CRT Monitors
Local: Thermostats

There are 15 drop-off locations in your area!

<table>
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<tr>
<th>LOCATION</th>
<th>DISTANCE</th>
<th>MAP</th>
<th>LOCATION TYPE</th>
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<td>Town of Wolfeboro</td>
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<td>HHW</td>
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<td>PO Box 629 Wolfeboro, NH 03894</td>
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<td>603-569-4439</td>
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<td>Wolfeboro Transfer Station</td>
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<tr>
<td>Wolfeboro, NH 03894</td>
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<td>603-569-4439</td>
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<tr>
<td>Town of Tuftonboro</td>
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<td>20 Sargent's Crossing</td>
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<tr>
<td>Tuftonboro, NH 03816</td>
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<td>603-539-3264</td>
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</table>

www.thermostat-recycle.org
Local Garages & Transmission Clinics
Household Hazardous Waste Program

The Household Hazardous Waste (HHW) Program is working toward changing the way New Hampshire’s residents purchase, use, and dispose of hazardous products, with a goal of reducing the amount and “toxicity” of the products they purchase. We work extensively with homeowners and municipalities, so for your benefit all information on the HHW home page has been divided into these two categories. Please read more to learn what the HHW program is doing for New Hampshire’s homeowners and municipal solid waste facilities. more...
<table>
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<tr>
<th>TOWN</th>
<th>ORGANIZER</th>
<th>RELATED WEB-PAGE</th>
<th>CONTACT</th>
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<td>Berlin</td>
<td>Androscoggin Valley RRDD</td>
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<td>Albany</td>
<td>Conway</td>
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<td>603-447-3611 X23</td>
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<td>Franklin Public Works Garage, 43 West Bow Street, Franklin</td>
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<td>Alton</td>
<td>Wolfeboro</td>
<td><a href="http://www.wolfeboro.maine.gov/">http://www.wolfeboro.maine.gov/</a></td>
<td>603-651-7530</td>
<td>43.632247,-71.208740</td>
<td>Lakes Region Household Hazardous Product Facility, 404 Beach Pond Road Wolfeboro</td>
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<td>Amherst</td>
<td>Nashua RPC</td>
<td><a href="http://www.nashuaprc.maine.gov/">http://www.nashuaprc.maine.gov/</a></td>
<td>603-424-2240</td>
<td>42.748327,-71.503958</td>
<td>Nashua Public Works Garage, 9 Stadium Drive, Nashua</td>
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<td><a href="mailto:pemibakerswd@yahoo.com">pemibakerswd@yahoo.com</a></td>
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<td>1215 ME, Eustis Road, Littleton</td>
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LAKES REGION
HOUSEHOLD HAZARDOUS
PRODUCT FACILITY

A Collaborative
Effort by
TOWN OF WOLFEBORO
Department of Public Works
"Striving for Excellence"
REGION PLANNING COMMISSION
DEPARTMENT OF ENVIRONMENTAL SERVICES

569-753

Open May - October
Third Saturday
8:30 AM - 12:00 PM

Lakes Region Household
Hazardous Product
Facility

569 - 5826
569 - Let's Take Care Of it!

404 Beech Pond Road,
Wolfboro, NH

Open May - October
Third Saturday
8:30 AM - 12:00 PM
## Contractors for Household Hazardous Waste Collections Projects 2016-2017

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Contact Information</th>
<th>Website</th>
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<tbody>
<tr>
<td><strong>Clean Harbors</strong></td>
<td>42 Longwater Drive</td>
<td>Norwell, MA 02061</td>
<td>(781) 792-5000, NH Field Service</td>
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<tr>
<td><strong>Clean Venture</strong></td>
<td>193 Lealand Street</td>
<td>Framingham, MA 01702</td>
<td>(508) 875-5271</td>
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<tr>
<td><strong>Care Environmental</strong></td>
<td>10 Oben Drive</td>
<td>Landing, NH 03859</td>
<td>(800) 494-2273, <a href="http://www.careenv.com">www.careenv.com</a></td>
</tr>
<tr>
<td><strong>Enpro Services, Inc.</strong></td>
<td>789 East Avenue</td>
<td>Pembroke, NH 03275</td>
<td>603-416-1150-1800-966-1102, <a href="http://www.enpro.com">www.enpro.com</a></td>
</tr>
<tr>
<td><strong>Triumvirate Environmental</strong></td>
<td>61 Inner Belt Road</td>
<td>Somerville, MA 02143</td>
<td>(888) 834-9697, <a href="http://www.triumvirate.com">www.triumvirate.com</a></td>
</tr>
<tr>
<td><strong>New England Disposal Technologies, Inc.</strong></td>
<td>83 Gilmore Drive, Sutton, MA 01590</td>
<td>150 East Main (Route 20), Westfield, MA</td>
<td>Office: (508) 234-4440, Fax: (508) 234-4441, <a href="http://www.NEDT.org">www.NEDT.org</a></td>
</tr>
<tr>
<td><strong>APT Environmental</strong></td>
<td>P.O. Box 162</td>
<td>Milton, VT 05468</td>
<td>(802) 893-8818, <a href="http://apted.net">http://apted.net</a></td>
</tr>
<tr>
<td><strong>Veolia Environmental Services</strong></td>
<td>358 Cedar Hill Street</td>
<td>Marlborough, MA 01752</td>
<td>(800) 354-2982, <a href="http://www.veoliaus.com">www.veoliaus.com</a></td>
</tr>
<tr>
<td><strong>Complete Recycling Solutions</strong></td>
<td>1075 Airport Road</td>
<td>Fall River, MA 02720</td>
<td>(508) 402-7314, <a href="mailto:sales@crisrecycle.com">sales@crisrecycle.com</a>, <a href="http://www.crisrecycle.com">www.crisrecycle.com</a></td>
</tr>
<tr>
<td><strong>Cyn Environmental</strong></td>
<td>8 Progress Drive</td>
<td>Dover, NH 03820</td>
<td>603-749-4959, <a href="http://www.cynenv.com">http://www.cynenv.com</a></td>
</tr>
<tr>
<td><strong>Tradebe Environmental Services</strong></td>
<td>410 Shattuck Way</td>
<td>Newington, NH 03881</td>
<td>(888) 276-0885, <a href="http://www.tradebe.com">http://www.tradebe.com</a></td>
</tr>
</tbody>
</table>


STATUTORY BANS
Tara Mae Albert, M.S.
SWOT Coordinator
TOPIC POINTS

- Identify the banned wastes.
- What are the provisions of the ban?
- Why are these wastes banned?
- What are you required to do at your facility?
- What are some options for customers and residents?
BANNED WASTES

- Wet-Cell Batteries
- Electronic Waste
- Leaf & Yard Waste
- Construction & Demolition Debris (C&D)
- Mercury Items
W.

Wet-Cell Batteries
Wet-Cell Battery (RSA 149-M:27, II)

- Banned from disposal in landfills, incinerators & compost facilities.
- Wet-Cell Batteries contain sulfuric acid and lead.
- **Fun fact:** One positive outcome of the ban is that it encouraged recycling. In fact, EPA estimates that 99% of all lead-acid batteries are recycled.
OPTIONS FOR WET-CELL MANAGEMENT

- For you:
  - Collect & actively manage them at your facility; then sell them to an authorized facility

- For your customers:
  - Return the old battery when purchasing the new one
  - Scrap Metal Yard
  - Car Repair Shop
E. Electronic Wastes
Electronic Wastes
(RSA 149-M:27, IV)

- Some electronic wastes are banned from landfill or incineration.
  - Video display devices
  - Central Processing Unit (CPU)
  - Non-mobile video display media recorder/player

- These devices contain heavy metals such as lead, cadmium and mercury.

**Fun fact:** Many electronics stores are starting to have take back programs for these items.
Facility Requirements

- Landfills and incinerators must:
  - Post signs regarding the ban;
  - Provide written notification to the facility customers; or
  - Have agreements with the customers.

- It is the responsibility of SW facilities to ensure that these items are not landfilled or incinerated.
OPTIONS FOR WASTE ELECTRONICS MANAGEMENT

- For you:
  - Household Hazardous Waste Collection Events
  - Long term collection events

- For your customers:
  - Goodwill
  - Take back programs at retailers and manufacturers
  - As Rocky says “Don’t Lose It, Reuse It!”
Leaf & Yard Waste
Leaf and yard waste are banned from disposal in landfills and incinerators.

Burning is not consistent with the Waste Hierarchy.

Landfilling uses space unnecessarily.

*It is easily composted, which allows you to treat the material as a resource rather than a waste.*
Facility Requirements

Landfills and incinerators must:

- Post signs regarding the ban;
- Provide written notification to or agreement with the facility customers; or
- Implement monitoring procedures at the facility and notify customers that they have delivered leaf & yard waste.

It is the responsibility of SW facilities to ensure that these items are not landfilled or incinerated.
OPTIONS FOR LEAF & YARD WASTE

- Have a leaf and yard waste collection at your facility for your customers.
- Have your customers take it home and compost it (have educational materials).
- Have a list of landscapers, composters, or farms in your area that take it.
- Town run leaf and yard waste pick up.
C.

Construction & Demolition Debris
CONSTRUCTION & DEMOLITION
(RSA 125-C:10-c)

- Prohibits the combustion of the wood component of C&D debris
- C&D can contain paint, adhesives and glue that release noxious gases when burned. This ban eliminates a possible source of air pollution.
M.

Mercury Containing Devices

Examples of some products that contain mercury.
Mercury Disposal Ban (RSA 149-M:58)

- Prohibits the disposal of mercury-added products in landfills, transfer stations and incinerators.
- Mercury is a heavy metal that can cause major human health and environmental damage.

Fun Fact: The term Mad Hatter centers around mercury poisoning.
One gram contaminates lake

Bio accumulates in your blood
WHAT ARE MERCURY-ADDED PRODUCTS?

- A product or product with a component that contains mercury or a mercury compound intentionally added to provide a specific characteristic, appearance, or quality or to perform a specific function or for any other reason.

- Some examples are: Fluorescent lamps, thermometers (silver ones), thermostats, tilt switches, button batteries
FACILITY REQUIREMENTS

- Landfills, transfer stations and incinerators must:
  - Post signs regarding the ban;
  - Provide written notification to or agreement with the facility customers;
  - Implement monitoring procedures to detect and separate out mercury-added devices that have been brought into the facility; and
  - Provide customers with information about collection programs or facilities permitted to accept these items.
OPTIONS FOR MERCURY MANAGEMENT

For you:
- Household Hazardous Waste Collection Events
- TRC Bins – Thermostats only
- Recycle as a Universal Waste

For your customers:
- Some hardware stores take lamps and thermostats
There are types of solid waste banned in NH.
The items banned are either hazardous, take up precious space or have value.
Facilities have requirements to meet the Statute.
Facilities should have options for residents.
Regulating Solid Waste in New Hampshire

Paul M. Gildersleeve, P.E.
Solid Waste Management Bureau
Permitting & Design Review Section
Why is Solid Waste REALLY Regulated?
Regulations Overview

- **Statutory Authority:**
  - RSA 149-M

- **Solid Waste Rules:**
  - Env-Sw 100 to Env-Sw 2000

- **Permits:**
  - Env-Sw 300
Important Concepts About Permits

Permits are required for a facility engaged in solid waste management.

Solid waste management includes the collection, storage, transfer, processing, treatment, separation, recovery, and disposal of solid waste.
More Important Concepts About Permits

- A permit is good for the life of the solid waste facility.

- A permit is an enforceable agreement with the State on how you will operate a solid waste facility.

- A permit contains the terms and conditions for constructing, operating, and closing the facility.
Three Categories of Facilities

- **Collection/Storage/Transfer**
  - Waste In → Waste Out

- **Processing/Treatment**
  - Waste In → Product and/or Waste Out

- **Landfill**
  - Waste In → Waste Stays
Permit Types

1. Standard Permit
2. Permit-by-Notification (most common for transfer stations)
3. Research and Development
4. Emergency Permit

You can also modify your permit!
Elements of a Solid Waste Permit

- Facility Name and Location
- Permittee Name
- Type of Facility
- Authorized and Prohibited Waste
- Operating Requirements
- Closure Requirements
- Financial Assurance

See Example Permit
What is an Operating Plan?

Env-Sw 1105.11

- An Operating Plan is a “how to” manual which is accessible to all operators.
- It must provide sufficient, up-to-date detail to allow the operators to operate the facility in conformance with the law, the rules, and the permit without further explanation or guidance.
- It lists authorized and prohibited wastes, self inspection procedures, and emergency response procedures.

Solid waste inspectors will be looking for this!
What is a Closure Plan?

Env-Sw 1106.04

- The Closure Plan provides the information necessary for a third party to properly close the facility permanently in a manner that protects public health, safety, and the environment.

- It must provide sufficient, up-to-date detail to allow a third party to close the facility in compliance with the law, the rules, and the permit without further explanation or guidance.

- It lists who should be contacted during closure, where facility records are kept, and the estimated costs for shutting down operations.

*Solid waste inspectors will also be looking for this!*
Reporting Requirements

Env-Sw 1105.07

- Incident Reporting
  (refer to Env-Sw 1005.09)

- Annual report

- Change of address, telephone number, contact person

THIS is an incident!
Regulating Solid Waste in New Hampshire

Questions?
Solid Waste Facility Inspections

Melanie Doiron
Waste Management Specialist
Solid Waste Compliance Assurance Section
Why Do Inspections?

- Ensures Compliance
- Assists with Questions
- Learning Tool – How Facility Operates
- Targets Training Topics - Is It Working?
Real Life Situation....
How is an Inspection Conducted?

- The gate (sign & access)
- Office visit (postings & records)
- Facility tour (view all areas)
- Debriefing (feedback)
- Surrounding properties (possibly)

Take photos, review paperwork, take samples
What is in an Inspection Report*?

- General Information
- Operator Requirements/Postings
- Reporting/Recordkeeping: Operating Plan, Closure Plan, Files, AFR
- Waste Types Managed
- Waste Handling and Storage Areas
- General Operations
- Comments

* Includes Corrective Actions
Front Gate Sign

- Facility name & permit number
- Permittee name, address and phone number
- Hours & days of operation
- Types of waste accepted
- Unlawful dumping will be subject to fine and prosecution
Where Do I Get Signage?

“New Hampshire the Beautiful” (NHtB) will provide signs for free

- Help purchase recycling equipment such as balers, roll-offs, and bins (flexible)

www.nhthebeautiful.org (603-736-8339)
The Office
Postings and Records

**Posted?**
- Permit authorization page
- Operator certifications

**Accessible and Updated?**
- Operating Plan
- Closure Plan
- Operating records (incidents, complaints, tonnages, names of destination(s), AFRs)
Clearly Posted
Operating Plan

- “Materials not accepted by the facility which cannot be returned to the responsible party will be held inside the building in an area designated for this purpose.”

- “Mercury Items not accepted by the facility which cannot be returned to the resident will be held inside the shed in the 5-gallon bucket designated for this purpose.

Easy to follow??
Access
Waste Type-Handling/Storage
What are we looking for?

- Stockpiles, containers, buildings & access ways
- Universal waste & used oil management
- Are all wastes being actively managed?
- Other activities or areas of potential concern (ex. wetlands, abutters)
- Vectors, odors, litter, soil staining
- Use of signs
- Drainage concerns & detention ponds
- Landfill specific concerns
Stockpiles
Proper Waste Management
Scrap Metal Dumpster
Municipal Solid Waste (MSW)
Housekeeping
Good Signage

Helps customers & provides direction
Use of Signs
Drainage concerns and ponds
Landfills - specific concerns

Settlement - Methane – Erosion- Ground Water- Cap Integrity
Debriefing

- **Concerns, if any**
  - Corrective actions needed

- **Management**
  - What you are doing right
  - Improvements/Recommendations
Will you be Prepared 365 Days/Yr?

- Conduct regular self-inspections
- Keep inspection records on-site
- Apply Best Management Practices
- Train staff
- Stay informed
- Know your facility
Doing a Self Inspection?

- Know your facility, the rules & the BMPs
- The Rules don’t specify who should inspect
- You must regularly inspect your facility - keep records - Env-Sw 1005.01(e)
- Operating plan: Include the schedule

Have a Correction Plan and Schedule!
Introduction to Self-Inspections & BMPs

Melanie Doiron, WM Specialist, SWMB
Tara Mae Albert, SWOT Coordinator, SWMB
Ensuring Compliance with Environmental Regulations

- Education and Training
- Be Vigilant
- Know where to go or who to ask to find answers to regulatory questions
- These all lead to…

Best Management Practices (BMPs)
What is a BMP?

- Method or technique found to be the most effective and practical means in achieving an objective while making the optimum use of the firm's resources.

What EXACTLY does that mean?

- They represent the best way to manage the different types of waste at your facility.
Types of Facilities

- Motor Vehicle Recycling Facilities
- Incinerators
- Compost Facilities
- Scrap Metal Yards
- Landfills
- Transfer Stations
- Waste-to-Energy

...all types of SW facilities MUST comply with the same regulations but how you get there might be different
BMP Components

- Why are they regulated?
- What are the hazards?
- How are they regulated?
- How to manage properly?
- Did you know?
Doing it right at your facility.

- **Do** know how to manage and handle wastes - BMPs.
- **Do** regular self inspections at your facility.
- **Do** have a plan to fix it.
- **Do** call DES.
ENFORCEMENT
Lauren Noether, Coordinator of Enforcement
Solid Waste Management Bureau
NHDES
What is Enforcement?

We know it when we see it
We are all enforcers
Why We Have Enforcement

- To make sure rules are followed
To level the playing field
To discourage bad behavior that is against the law.
To keep people, environment safe
WHO MUST PLAY BY THE RULES?

All of us – the law applies to each

Responsible parties

- Facility owners
- Facility operators
- Landowners
- Interlopers / trespassers
These are things that we use as a regulatory agency to inspire folks and facilities to do the right thing and follow the law and be safe.
Criminal or Civil Penalties

- It is a misdemeanor to violate the rules or solid waste law (it is a felony for a corporation)
  - Jail time
  - Criminal fines
  - Probation supervision

Civil penalties include a fine of up to $25,000 per violation, per day

The Court can force you to clean up, follow permit conditions, lose a permit, or face contempt
Summary: Enforcement Tools

- Letter of Deficiency (LOD)
- Administrative Order (AO)
- Administrative Fine (AF)
- License Action
- Court – Civil or Criminal
Concord Developer gets year for burying junk

A Concord developer was sentenced yesterday to a year in jail for burying junk on his property ...prosecutors told a judge he had repeatedly flouted environmental laws and deserved a harsh punishment.
To help sustain a high quality of life by protecting and restoring the environment and public health
WHAT HAPPENS NOW?

LAURA J. FILIAU, PROGRAM SPECIALIST
SOLID WASTE COMPLIANCE ASSURANCE SECTION
TEST

- Testing will be in this room.
- Test is 50 questions:
  - Multiple choice;
  - True or False; and
  - Fill in the blank
- Open book test.
- Ask for help from NHDES staff.
- Take your time.
- Look over your test before handing it in.
DESIGNATIONS

• Grade exams & assign certification designations:
  • Assistant Operator - does not take or fails exam
  • Principal Operator - passes exam with a 70% or better

• Step designations
CERTIFICATE

• In a few weeks, NHDES will mail a certificate to your home address.

• POST your certificate at your workplace.
Be it known that:

JOHN A DOE

is hereby granted Solid Waste Facility Operator Certification # 00XXXX pursuant to RSA 149-M and the NH Solid Waste Rules as a

PRINCIPAL OPERATOR

and is authorized accordingly to work at New Hampshire solid waste facilities.

This certification expires on 3/17/2017.

Remember - this is YOUR certification, not your employer’s.
MAINTAINING CERTIFICATION

• All operators are required to complete at least 2.5 hours of continuing professional development (CPD) per year.

• Training relevant to waste management and solid waste facility operations.
MAINTAINING CERTIFICATION

- Information on CPD is available on the NHDES website:
  
# STEP DESIGNATIONS

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<tr>
<th>Step</th>
<th>Total Hours of CPD</th>
</tr>
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<tr>
<td>1</td>
<td>2.5</td>
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<tr>
<td>2</td>
<td>12.5</td>
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<td>3</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>37.5</td>
</tr>
<tr>
<td>Senior*</td>
<td>50</td>
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</tbody>
</table>

* Only for Principal Operators
CERTIFICATION RENEWAL

No more than 90 days before expiration, you must submit:

- Renewal application;
  - sent to your home 2-3 months before certification expiration
  - available on NHDES website

- Proof of completing at least 2.5 hours of CPD; and

- $50 fee
If you are within 90 days late...

• Submit renewal application;
• Proof of CPD; and
• $75 fee
  • $50 standard fee
  • $25 late fee
CERTIFICATION EXPIRATION

If you are more than 90 days late...

- You must reapply, come back to Basic Training, and take the test again.