

Due Diligence for MRW Disposal

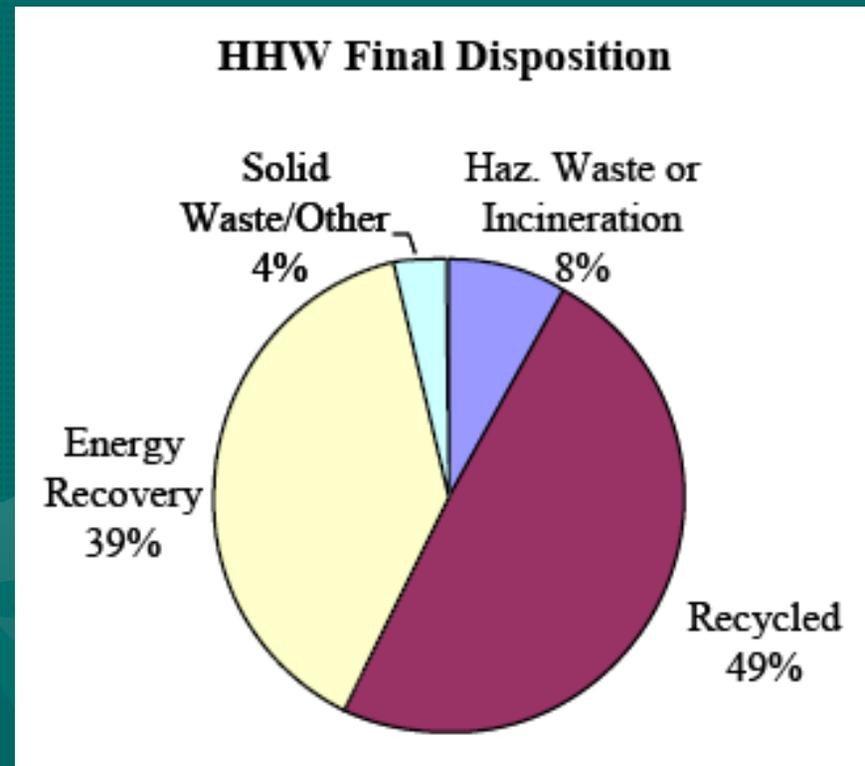
Moderate Risk Waste Coordinators
Meeting

April 4, 2007

Its Not Enough to Only Collect It...

- Do you fully understand the description of waste handling provided by your vendor?
- Do you have adequate tracking mechanisms in place for shipments?
- Do you understand billing and cost for vendor services?
- Who regulates and how does enforcement occur for final disposal?

Final Disposition of MRW in Washington (2004)



History Lesson 1: CleanCare Corp.

- CleanCare Corp., a Tacoma hazardous waste handler abandoned its business almost five years ago and left behind used oil, solvents, antifreeze and other substances. Cleaning it up has cost taxpayers more than \$5.5 million.

History Lesson 2: Electronics 'Recycling'



Mountains of E-waste like this are common in or near primitive recycling facilities in countries such as China, Malaysia, Indonesia, and Nigeria.

Source: Silicon Valley
Toxics Coalition

Final Disposal Facilities

- None located in Washington, making oversight difficult.

Commercial TSDRs

Applied Process Engineering Lab Research & Development Richland

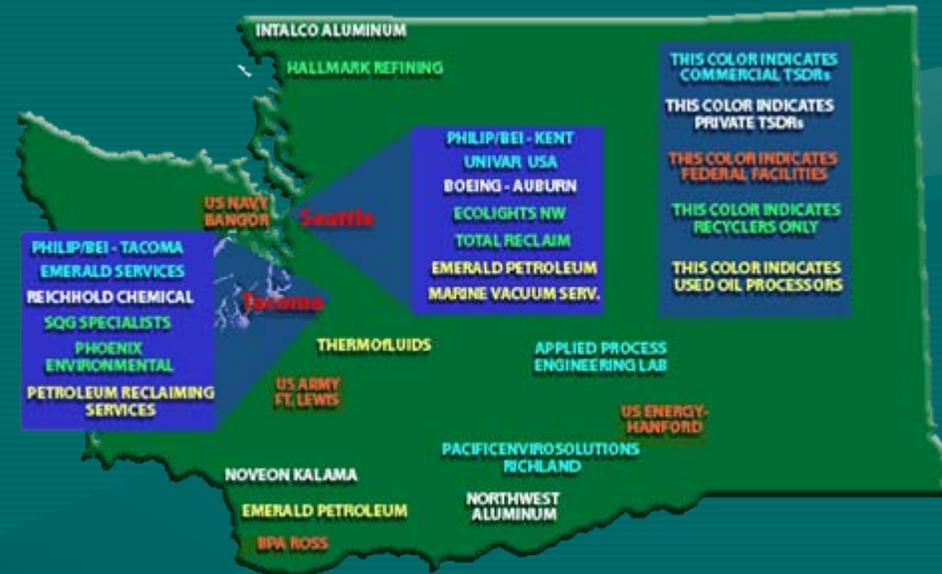
Emerald Services Storage, Treatment & Recycling Tacoma

PacificEcoSolutions Storage & Treatment Richland

Philip/BEI – Kent Storage, Treatment & Recycling Kent

Philip/BEI – Tacoma Storage, Treatment & Recycling Tacoma

Univar USA Storage Kent



MRW Facility Responsibilities

- Ensure that MRW is delivered to a facility that meets the performance standards of 173-350-040
- Local solid waste disposal regulations, such as disposal prohibitions
- Interim Enforcement Policy for CRTs (highly recommended for those managing HHW exempt waste)

Performance Standards:

WAC 173-350-040

- (1) Design, construct, operate, and close all facilities in a manner that **does not pose a threat to human health or the environment;**
- (2) Comply with chapter [90.48](#) RCW, **Water pollution control** and implementing regulations, including chapter [173-200](#) WAC, **Water quality standards for ground waters** of the state of Washington;
- (3) Conform to the **approved local comprehensive solid waste management plan** prepared in accordance with chapter [70.95](#) RCW, Solid waste management -- Reduction and recycling, and/or the **local hazardous waste management plan** prepared in accordance with chapter [70.105](#) RCW, Hazardous waste management;
- (4) Not cause any violation of **emission standards or ambient air quality standards** at the property boundary of any facility and comply with chapter [70.94](#) RCW, Washington Clean Air Act; and
- (5) Comply with all other **applicable local, state, and federal laws and regulations.**

Also, You Must Follow:

- Waste acceptance policies in receiving state
- DOT Shipping requirements
- Record keeping requirements

Transporters

- Will most likely have an EPA ID #
- Cannot store material for more than 10 days
- Should use either a non-hazardous waste manifest or bill of lading to track waste from collection to final disposal.
- It is your responsibility to notify regulators if your waste goes missing

Types of Hazardous Waste Treatment

- Biological treatment
- Boiler
- Carbon adsorption
- Chemical oxidation
- Chemical reduction
- Deactivation
- Extraction
- Incineration
- Industrial Furnace
- Microencapsulation
- Neutralization
- Physical removal
- Smelting
- Stabilization
- Steam stripping
- Treatment in tanks
- Vitrification
- Wastewater treatment units
- Waste to Energy Incineration

Requirements for TSDFs

- **Air Emissions** – control VOCs
- **Closure** – ensure that no future threat exists
- **Corrective Action/Hazardous Waste Cleanup** – facilities must address releases and provide investigation
- **Financial Assurance** – demonstrate financial capacity to provide for closure and emergency response
- **Ground Water Monitoring** – monitor groundwater beneath facilities
- **Land Disposal Restrictions** – all hazardous waste must be treated prior to being placed on the land for disposal
- **Permits and Permitting** - must obtain hazardous waste permits

Sources to Check on Disposal Facility Compliance

- www.epa.gov/enviro/html/rcris/
- www.epa.gov/compliance/data/systems/multi-media/echo.html
- www.ecy.wa.gov/programs/hwtr/
- Call the state regulators

Other Tools to Ensure Performance

- Visits to your vendor— ask questions!!
- Contract language
- Contract enforcement
- Partnering with other agencies for inspections and visits
- Use the help of the state contract manager

What are your closure plans?

- Over 9,000 gallons of material onsite, required to have financial assurance and detailed closure plan.
- Others must have an approved closure plan, including calculating the total volume of material on site at any one time (financial assurance plans not needed).

A final note:

Don't spend a lot of money to collect MRW, only to send it to an environmentally problematic transporter or facility!

Questions? Stories? Thoughts? Issues?