



# **Best Practices in Waste Management**

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**Product Manager, 3E Technical Services**



# AGENDA



- Waste Determination
- Vendor Management
- Data and Document Management

## Most common hazardous waste violation:

- Failure to determine which wastes are hazardous

## 40 CFR Section 262.11 – Hazardous Waste Determination

- A person who generates a solid waste, must determine if that waste is a hazardous waste

- Avoid this violation
  - Make a determination on all waste generated on site
  - Treat unknown material as a hazardous waste during the determination process (label, close, date, etc.)
  - Retain necessary documentation for both hazardous and non hazardous waste



## Do you have a solid waste?

Determine if the material in question is classified as a solid waste. If the material is NOT a solid waste, it cannot be a hazardous waste

The statutory definition of a solid waste is completely irrespective of the physical form of the waste. A "solid" waste can be just as easily liquid or gas. A material is considered a solid waste if it:

- Is a solid, semi-solid, liquid, or contained gaseous material which is discarded or has served its intended purpose?
- Is abandoned?
- Is being recycled by being placed on the ground (and that is not the normal use), burned for energy recovery, reclaimed, or accumulated more than one year.
- Is inherently waste-like (e.g., dioxin wastes)?



## **Is the solid waste excluded from hazardous waste regulation?**

EPA grants specific exclusions from some hazardous waste regulations if certain conditions are met. Some materials are excluded from the definition of solid waste, while some solid wastes are excluded from the definition of hazardous waste. Knowing these exclusions can be helpful in waste management programs.

## Is the solid waste considered a hazardous waste?

If the waste is not excluded, then you must determine if the waste:

- Meets one or more of the hazardous waste listing descriptions found in 40CFR261 or
- Exhibits any of the characteristics of a hazardous waste: ignitability, corrosivity, reactivity or toxicity

## Listed Wastes

- F – list: Non Specific Sources
- K – list: Specific Industrial Process
- U – list: Unused Off-Specification Chemical Products
- P – list: Acutely Toxic Unused Off-Specification Chemical Products

(Note: P & U Lists: Solely the listed constituent or sole active ingredient)

## Characteristic Wastes

- Ignitability: liquids  $< 140$  F, solids ignite by friction (D001)
- Corrosivity: pH  $< 2$  or  $> 12.5$  (D002)
- Reactivity: unstable, water-reactive, contain cyanides, explosive (D003)
- Toxicity: liquid wastes which contain, and solid waste which leach out threshold or higher concentrations of metals, organics, pesticides (D004-D043)

## State Authorization (40CFR Part 271)

- State programs have the option to be more stringent than the Federal Standards
- EPA is authorized to accompany state inspectors to ensure the adequacy of the state program



## Waste Identification

Two options for waste generators:

1. Apply **knowledge** of the raw materials and processes generating the waste, or
2. Conduct waste **testing** or analysis

- Large inventory of items that could potentially become hazardous wastes
- Number of locations spread across a large geographic area
- Undeveloped waste management programs
- Employees that are minimally trained in EH&S and hazardous waste
- Inconsistent waste generation mainly from spills, unreturnable items, abandoned waste

- Need for waste related data to use as foundation for establishing their waste program
  - Integrate with existing enterprise systems
  - Determine product routing & disposal
  - Identification and separation of incompatible materials
  - Waste storage container selection
  - Waste container labeling



# WASTE CLASSIFICATION



Description	Notes
UPC / SKU	Provided by Client
Manufacturer	Provided by Client
Product	Provided by Client
Container Size	Provided by Client
Container Unit	Provided by Client
SKU	Provided by Client
RCRA Waste Code	Alphanumeric Characteristic or Listed Waste Codes as defined in 40 CFR 261 Parts C and D
RCRA Waste Classification	Characteristic and Listed Waste Description
State Waste Code (Value Add Option)	Alphanumeric characteristic or listed waste codes as defined Required by the regulating State authority
State Waste Classification (Value Add Option)	Description of characteristic or listed waste
Client Custom Field	Applied value specific to Client waste management program (e.g. Black Container, Waste Streams/Profiles)

## Hazardous Waste

\*\*STATE & FEDERAL LAW PROHIBITS IMPROPER DISPOSAL\*\*

**IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY  
AUTHORITY, OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY OR  
THE APPROPRIATE STATE AGENCY.**

### Generator Information

Company: *Acme Corporation*  
Facility ID: *ACM0102*  
EPA ID Number: *CAL000123201*  
Address: *1905 South Main Street*  
Contact Number: *Carlsbad, California 92008*  
*(760) 555-1212*



### Material Information

Accumulation Start Date: *10/05/05*  
Material ID: *025056010100*  
Material Description: *1 GAL FIBERED ROOF COATING*  
Physical State: *Liquid*

### Hazard Information

Hazard: **Ignitable**  
RCRA Waste Code(s): *D001*  
State Waste Code(s): *281*

*ACM0102-080506-0001B*



1. Importance of Vendor Selection
2. Consider Cost vs. Reliability
3. Vendor Qualification

## Statement of Qualifications

- Company history and experience
- Listing of hazardous waste response capabilities & equipment, including type of waste handled (e.g. Chemical, Pharmaceutical, Blood Borne Pathogens, etc)
- Geographical areas covered
- Listing of locations and 24-hour contact numbers
- Customer References

## Insurance Requirements

- Require Vendors contractors meet minimum standards of insurance coverage:
  - Worker's Compensation
  - Employers Liability
  - Commercial General Liability
  - Automobile Liability
  - Contractor's Pollution Liability
  - Professional Errors and Omissions Liability
- Maintain Copies of Insurance Certificates



## QUALIFYING VENDORS



- Review of contractor financial stability including: financial history, bankruptcies, mergers and acquisitions.
- Review of contractor compliance record including reported violations and fines.
- Requires that the contractor certify that they maintain all required licenses, permits and registrations to handle, store, transport or dispose of hazardous waste within the jurisdictions they service.
- Have the contractor supply copies of current licenses, permits and/or registrations
- Review of customer service track record based on industry referrals, customer references, and personal experiences

- Know where the wastes go; Specify TSDF if appropriate
- Find out if they subcontract
- Contractual agreements
  - Specific performance and compliance standards
  - Confidentiality
  - Preferred Pricing
- Perform random audits
- Update vendor information as business requirements change or on a periodic basis
- Use competitive bid process

- Uniform Hazardous Waste Manifest (cradle to grave management system)
  - EPA ID Number
  - Keep for 3 years
  - Sign & date
  - Return copy to DTSC w/in 30 days
  - TSDF copy back w/in 45 days (exception report w/in 35 days)
- Land Disposal Record (LDR) (cert. vs notif)



# DATA MANAGEMENT



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## 3E Company Demo

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Waste > [Waste Pickup Documents](#)

**1** Select Location

**2** Select a date range and click Find Documents to display all available documents

**Store 0660**

Browse Search Clear

- Division NORTHERN
- Division SOUTHERN
- Division WESTERN
  - Region PAC MTN DESERT
  - Region PACIFIC CENTRAL
  - Region PACIFIC NORTH
  - Region PACIFIC NORTHWEST
  - Region PACIFIC SOUTH
    - District 0011
      - Store 0660**
      - Store 0669
      - Store 0679
      - Store 1018
      - Store 1053

From:  To:

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**Store 0660**

Browse Search Clear

- Division NORTHERN
- Division SOUTHERN
- Division WESTERN
  - Region PAC MTN DESERT
  - Region PACIFIC CENTRAL
  - Region PACIFIC NORTH
  - Region PACIFIC NORTHWEST
  - Region PACIFIC SOUTH
    - District 0011
      - Store 0660**
      - Store 0669
      - Store 0679
      - Store 1018
      - Store 1052

From:  To:

**16 document(s) found for location 'Store 0660' between Mar 01, 2006 and Mar 02, 2007**

<a href="#">Jan 03, 2007</a>	<a href="#">Dec 06, 2006</a>	<a href="#">Nov 22, 2006</a>	<a href="#">Nov 22, 2006</a>	<a href="#">Nov 06, 2006</a>
<a href="#">Nov 01, 2006</a>	<a href="#">Oct 02, 2006</a>	<a href="#">Sep 28, 2006</a>	<a href="#">Sep 08, 2006</a>	<a href="#">Aug 27, 2006</a>
<a href="#">Aug 08, 2006</a>	<a href="#">Jul 06, 2006</a>	<a href="#">Jun 07, 2006</a>	<a href="#">May 11, 2006</a>	<a href="#">Apr 12, 2006</a>
<a href="#">Mar 13, 2006</a>				

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Form Approved, OMB No. 2050-0039

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number 2. Page 1 of 2 3. Emergency Response Phone (800) 567-7455 4. Manifest Tracking Number

5. Generator's Name and Mailing Address  
C/O 3E COMPANY  
1905 ASTON AVENUE #100  
CARLSBAD CA 92008 (800) 451-0346

6. Transporter 1 Company Name RHO-CHEM U.S. EPA ID Number

7. Transporter 2 Company Name U.S. EPA ID Number

8. Designated Facility Name and Site Address  
Rho-Chem Corporation  
425 Isis Avenue  
Inglewood, CA 90301 (323) 776-6233

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit, Wt./Vol.	13. Waste Codes		
		No.	Type			D001	331	D035
X	1. WASTE AEROSOLS, FLAMMABLE, R.O.S. (D001) 2.1 UN1950 LTD QTY RQ(D001=100) ERG(126)	1	EM DF	40	P	D001	331	D035
X	2. WASTE PAINT RELATED MATERIAL 3 UN1263 PGII (FLASHPOINT=20.00c) RQ(D001=100) ERG(128)	2	DM	280	P	D001	331	D035
X	3. WASTE GASOLINE 3 UN1203 PGII (FLASHPOINT=20.00c) MIXTURE - RQ(D001=100) ERG(128) <i>Gas</i>	0	DM	0	P	D001	331	D035
X	4. WASTE HYPOCHLORITE SOLUTIONS 8 UN1791 PGII ERG(154)	1	EM DF	10	P	D001	141	D002

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## Hazardous Waste Report For Fiscal Year 2007

Comparison Between Previous Fiscal Year (2/1/2006 and 1/31/2007) and Current Fiscal Year (2/1/2007 and 1/31/2008)  
Printed on: Friday, March 02, 2007

Store #	City, State	2006 Pickups		2007 Pickups		2006		2007		Total Lbs		Variance To LY	
		Scheduled	Actual	Scheduled	Actual	RCRA Lbs	Non-RCRA Lbs	RCRA Lbs	Non-RCRA Lbs	2006	2007	Lbs to LY	% to LY
<b>WESTERN</b>													
<i>PACIFIC SOUTH</i>													
<b>District 0011</b>													
0660	ENCINITAS, CA	17	17	10	0	8,475	8,121	0	0	16,596	0	16,596	-100 %
		<b>17</b>	<b>17</b>	<b>10</b>	<b>0</b>	<b>8,475</b>	<b>8,121</b>	<b>0</b>	<b>0</b>	<b>16,596</b>	<b>0</b>	<b>16,596</b>	<b>-100 %</b>
<b>TOTALS FOR REGION :</b>		<b>17</b>	<b>17</b>	<b>10</b>	<b>0</b>	<b>8,475</b>	<b>8,121</b>	<b>0</b>	<b>0</b>	<b>16,596</b>	<b>0</b>	<b>16,596</b>	<b>-100 %</b>
<b>TOTALS FOR DIVISION :</b>		<b>17</b>	<b>17</b>	<b>10</b>	<b>0</b>	<b>8,475</b>	<b>8,121</b>	<b>0</b>	<b>0</b>	<b>16,596</b>	<b>0</b>	<b>16,596</b>	<b>-100 %</b>

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### Value of data basing waste information for analysis:

- Using data to facilitate filing of generator reports
- Monitoring changes to generator status and potential impact on waste management programs that have been implemented
- Using data to develop effective waste minimization strategies by looking at waste streams and disposal methods over time
- Benchmarking data to compare to performance of other facilities
- Using data to help demonstrate effective cost management implications and justification for EH&S initiatives



# Questions

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