



Hazardous Waste Generators



**ENVIRONMENTAL
QUALITY**

WASTE MANAGEMENT & RADIATION CONTROL

Overview

- Generator Categories
- Requirements for VSQGs, SQGs, and LQGs
- Satellite Accumulation



Generator Category

R315-262-13

Quantity of Acute Hazardous Waste Generated in a Calendar Month	Quantity of Non-Acute Hazardous Waste Generated in a Calendar Month	Quantity of Residues from Cleanup of Acute Hazardous Waste Generated in a Calendar Month	Generator Category
> 1 kg > 2.2 lbs	Any Amount	Any Amount	Large Quantity Generator
Any Amount	≥ 1,000 kg ≥ 2,200 lbs	Any Amount	Large Quantity Generator
Any Amount	Any Amount	> 100 kg > 220 lbs	Large Quantity Generator
≤ 1 kg ≤ 2.2 lbs	> 100 kg and < 1,000 kg > 220 lbs and < 2,200 lbs	≤ 100 kg ≤ 220 lbs	Small Quantity Generator
≤ 1 kg ≤ 2.2 lbs	≤ 100 kg ≤ 220 lbs	≤ 100 kg ≤ 220 lbs	Very Small Quantity Generator



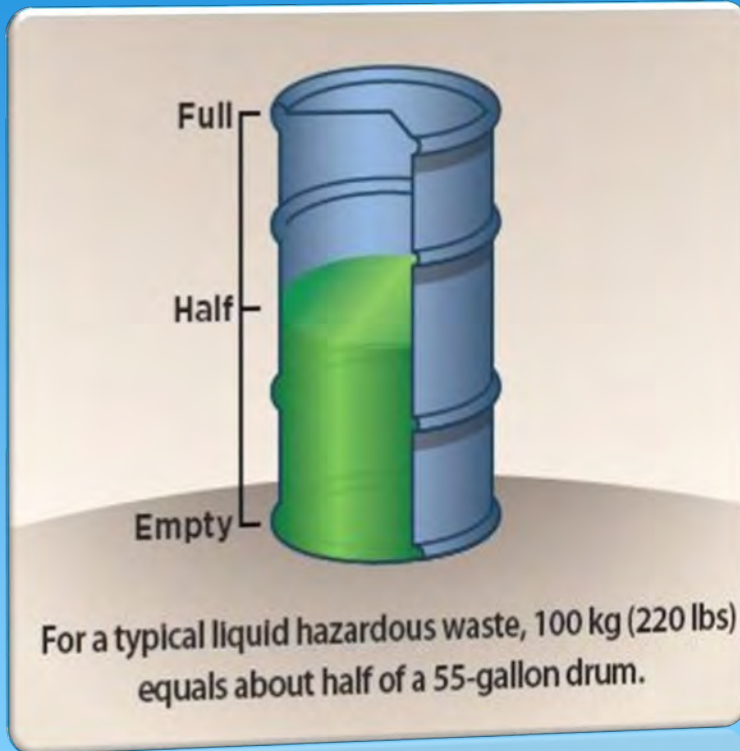
**WASTE MANAGEMENT
& RADIATION CONTROL**

F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetra -chlorophenol or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetra -chlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from nonpurified 2,4,5-trichlorophenol as the sole component.)	(H)

Hazardous waste #	Chemical abstracts #	Substance
P003	107-02-8	Acrolein
P015	7440-41-7	Beryllium powder
P042	51-43-4	Epinephrine
P063	74-90-8	Hydrogen cyanide
P089	56-38-2	Parathion
P094	298-02-2	Phosphate
P095	75-44-5	Phosgene
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P108	157-24-9	Strychnine, & salts
P001	181-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P064	624-83-9	Methyl isocyanate
P075	154-11-5	Nicotine, & salts (this listing does not include patches, gums and lozenges that are FDA-approved over-the-counter nicotine replacement therapies).
P081	55-63-0	Nitroglycerine (R)

Generator Categories Waste Storage Limits

R315-262-16



Very Small Quantity Generators (VSQG) - No more than **2,200 lbs** (1,000 kg) of hazardous waste or **2.2 lbs** (1 kg) of acute HW onsite at any time

Small Quantity Generators (SQG) - No more than **13,228 lbs** (6,000 kg) of hazardous waste onsite or **2.2 lbs** (1 kg) of acute HW onsite at any time



**WASTE MANAGEMENT
& RADIATION CONTROL**

Generator Category

Monthly Generation

A gallon of water weighs 8.33 pounds

A 55 G drum of water weighs about 458 pounds

- $\frac{1}{2}$ drum = VSQG
- >27 gallons = SQG
- 4 drums = SQG
- 5 drums = LQG



**WASTE MANAGEMENT
& RADIATION CONTROL**

Generator Category Accumulation Onsite

A gallon of water weighs 8.33 pounds

A 55 G drum of water weighs about 458 pounds

VSQG 2,200 lbs at any time – 264 gallons

SQG 13,228 lbs at any time – 1588 gallons



**WASTE MANAGEMENT
& RADIATION CONTROL**

Generator Category Exercise

chemical	density (lbs/gal)	VSQG Monthly 220 lbs to gal	VSQG total 2200 lbs to gal	VSQG total in 55gal drums	SQG Monthly 2200 lbs to gal	SQG Monthly (drums)	SQG total 13228 lbs to gal	SQG total in 55 gal drums
gasoline	6.30	34.9	349.2	6.3	349.2	6.3	2099.7	38.2
acetone	6.64	33.1	331.3	6.0	331.3	6.0	1992.2	36.2
methyl ethyl ketone (MEK)	6.74	32.6	326.4	5.9	326.4	5.9	1962.6	35.7
isopropyl alcohol (IPA)	6.82	32.3	322.6	5.9	322.6	5.9	1939.6	35.3
toluene	7.18	30.6	306.4	5.6	306.4	5.6	1842.3	33.5
water	8.33	26.4	264.1	4.8	264.1	4.8	1588.0	28.9
glacial acetic acid	8.74	25.2	251.7	4.6	251.7	4.6	1513.5	27.5
hydrochloric acid	9.83	22.4	223.8	4.1	223.8	4.1	1345.7	24.5
methylene chloride	10.52	20.9	209.1	3.8	209.1	3.8	1257.4	22.9
nitric acid	11.70	18.8	188.0	3.4	188.0	3.4	1130.6	20.6
trichloroethylene (vinyl chloride)	12.51	17.6	175.9	3.2	175.9	3.2	1057.4	19.2
perchloroethyle/tetrachloroethylene	13.46	16.3	163.4	3.0	163.4	3.0	982.8	17.9
sulfuric acid	15.30	14.4	143.8	2.6	143.8	2.6	864.6	15.7



**WASTE MANAGEMENT
& RADIATION CONTROL**



VSQGs:

Very Small Quantity Generators



**ENVIRONMENTAL
QUALITY**

WASTE MANAGEMENT & RADIATION CONTROL

Very Small Quantity Generators

R315-262-14

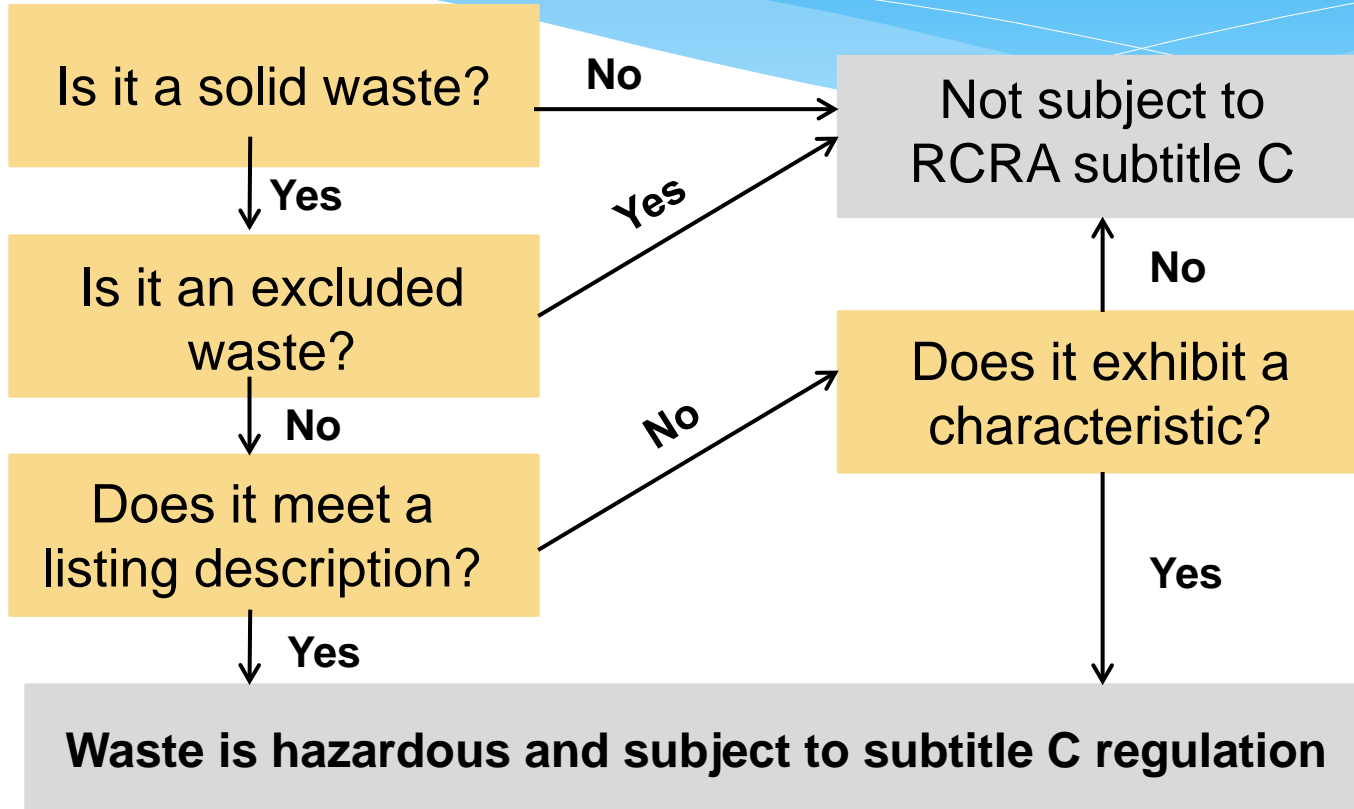
VSQG Must:

1. Identify its hazardous waste
2. Store no more than 1,000 kg (2,200 lbs) of hazardous waste or 1 kg (2.2 lbs) of acute HW onsite at any time
3. Ensure delivery to an off-site treatment, storage, or disposal facility authorized to manage VSQG waste



**WASTE MANAGEMENT
& RADIATION CONTROL**

Hazardous Waste Determination



Disposing of VSQG Hazardous Waste

R315-262-14

- * Hazardous waste treatment, storage or disposal facility (TSDF)
- * Municipal or industrial solid waste management facility
- * Facility that uses, reuses or recycles the waste
- * Universal Waste handling facility (for universal waste)
- * Consolidate to a Large Quantity Generator under the control of the same person as the VSQG



**WASTE MANAGEMENT
& RADIATION CONTROL**

Consolidation Labeling Requirements

IGNITABLE
CORROSIVE
REACTIVE
TOXIC



EPA Characteristics

DOT Shipping Labels

OSHA GHS Pictograms

NFPA 704 Labels



**WASTE MANAGEMENT
& RADIATION CONTROL**

VSQG Consolidation Option

R315-262-14

- There is no quantity limit for shipments from the VSQG to the LQG
- No hazardous waste manifest is required and hazardous waste transporters do not have to be used
- The VSQG and the LQG can be in different states



**WASTE MANAGEMENT
& RADIATION CONTROL**

Shipping VSQG Hazardous Waste

Must comply with all DOT requirements:

Marking, Placarding, Shipping papers

Shipping on an electronic manifest:

- * If your transporter uses e-manifests, you will need an EPA ID number
- * Fill out form 8700-12 and send it to Kaci McNeill



**WASTE MANAGEMENT
& RADIATION CONTROL**



SQG

Small Quantity Generators



**ENVIRONMENTAL
QUALITY**

WASTE MANAGEMENT & RADIATION CONTROL

SQG Requirements

R315-262-16

Waste Generation and Storage Limits

- * Generate more than 220 lbs (100 kg) but less than 2,200 lbs (1,000 kg) hazardous waste in a month
- * Generate up to 2.2 lbs (1kg) pounds acute hazardous waste in a month
- * No more than 13,228 pounds (6,000 kg) of hazardous waste onsite
- * May accumulate onsite for 180 days or 270 days if transported more than 200 Miles



**WASTE MANAGEMENT
& RADIATION CONTROL**

Generator Category Exercise

chemical	density (lbs/gal)	VSQG Monthly 220 lbs to gal	VSQG total 2200 lbs to gal	VSQG total in 55gal drums	SQG Monthly 2200 lbs to gal	SQG Monthly (drums)	SQG total 13228 lbs to gal	SQG total in 55 gal drums
gasoline	6.30	34.9	349.2	6.3	349.2	6.3	2099.7	38.2
acetone	6.64	33.1	331.3	6.0	331.3	6.0	1992.2	36.2
methyl ethyl ketone (MEK)	6.74	32.6	326.4	5.9	326.4	5.9	1962.6	35.7
isopropyl alcohol (IPA)	6.82	32.3	322.6	5.9	322.6	5.9	1939.6	35.3
toluene	7.18	30.6	306.4	5.6	306.4	5.6	1842.3	33.5
water	8.33	26.4	264.1	4.8	264.1	4.8	1588.0	28.9
glacial acetic acid	8.74	25.2	251.7	4.6	251.7	4.6	1513.5	27.5
hydrochloric acid	9.83	22.4	223.8	4.1	223.8	4.1	1345.7	24.5
methylene chloride	10.52	20.9	209.1	3.8	209.1	3.8	1257.4	22.9
nitric acid	11.70	18.8	188.0	3.4	188.0	3.4	1130.6	20.6
trichloroethylene (vinyl chloride)	12.51	17.6	175.9	3.2	175.9	3.2	1057.4	19.2
perchloroethyle/tetrachloroethylene	13.46	16.3	163.4	3.0	163.4	3.0	982.8	17.9
sulfuric acid	15.30	14.4	143.8	2.6	143.8	2.6	864.6	15.7



**WASTE MANAGEMENT
& RADIATION CONTROL**

SQG Requirements

R315-262-18

- * EPA Identification Number
- * Hazardous Waste Transporter and TSD
- * Re-notification



WASTE MANAGEMENT
& RADIATION CONTROL

SQG Requirements

R315-262-20, R315-262-40, R315-262-42

Manifest Requirements

- * Use
- * Recordkeeping
- * Exception Reporting



WASTE MANAGEMENT
& RADIATION CONTROL

SQG Requirements

R315-262-16

Containers

- * Compatible with the Waste and In Good Condition
- * Keep Containers Closed
- * Label Containers with the Words “Hazardous Waste”
and an Indication of the Hazards of the Contents
- * Not Handle or Store Containers so that They Might Rupture, Leak or Be Damaged
- * Inspect Central Accumulation Areas Weekly



**WASTE MANAGEMENT
& RADIATION CONTROL**

Acceptable Open Container



**WASTE MANAGEMENT
& RADIATION CONTROL**

SQG Requirements

R315-262-16

Accumulation of Incompatible Wastes

- ❑ Not Placed in Same or Unwashed Containers
- ❑ Separated by Dike, Berm, Wall or Other Device



Labeling Requirements At the Point of Generation

IGNITABLE
CORROSIVE
REACTIVE
TOXIC



EPA Characteristics

DOT Shipping Labels

OSHA GHS Pictograms

NFPA 704 Labels



**WASTE MANAGEMENT
& RADIATION CONTROL**

HAZARDOUS WASTE

#1431

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY
AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERATOR INFORMATION:

NAME _____ PHONE _____
ADDRESS _____ STATE UT ZIP _____
CITY OGDEN ACCUMULATION START DATE 1-4-21
MANIFEST TRACKING NO. _____ EPA WASTE NO. D001, D055, F005, F005
EPA ID NO. _____

RQ, UN1263, WASTE PAINT RELATED MATERIAL, 3, PG III
(WASTE PAINT RELATED MATERIALS - LIQUID)

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

HANDLE WITH CARE!



Labeling Requirements Prior to Shipping

**HAZARDOUS
WASTE**

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY
AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

GENERATOR INFORMATION:

NAME Generic College
ADDRESS 123 College Street PHONE (800)123-4567
CITY College Town STATE CT ZIP 06032
MANIFEST TRACKING NO. 123456789ABC ACCUMULATION START DATE 12/10/2007
EPA ID NO. CTD000123456 EPA WASTE NO. D002

[Waste Corrosive Liquids, N.O.S., 8, UN 1760,
III (Sulfuric Acid, Hydrochloric Acid)]

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

HANDLE WITH CARE!

STYLE WM8

LABELMASTER® (800) 621-5808 www.labelmaster.com



**WASTE MANAGEMENT
& RADIATION CONTROL**

SQG Central Accumulation Area

R315-262-16(b)

- * 180/270-Day Areas
- * Containers
 - * Labeling – accumulation start date
 - * Inspect Weekly
 - * Preparedness & Prevention
 - * Emergency Procedures
 - * Training



**WASTE MANAGEMENT
& RADIATION CONTROL**

WHEN DUMPING
INK OR SOLVENT,
EMPTY
CONTAINERS AND
THROW THEM
AWAY. DO NOT
LEAVE
CONTAINERS
FOR OTHERS TO
EMPTY

IF THE WASTE INK OR THE
WASTE SOLVENT BARRELS
ARE FULL THE ROLL TENDER
WORKING AT THE TIME IS
RESPONSIBLE TO CHANGE
THEM

**WASTE
SOLVENT**



**HAZARDOUS
WASTE**
FEDERAL LAW PROHIBITS THE DISPOSAL
OF HAZARDOUS WASTE IN LANDFILLS
UNLESS THE WASTE IS FIRST TREATED
AND STABILIZED TO MEET THE
FEDERAL STANDARDS FOR
LANDFILLING.
HAZARDOUS WASTE
HANDLE WITH CARE

03/14/2011





SQG Preparedness and Prevention

R315-262-16

- * Must be Equipped with:
 - * Internal Communication or Alarm System
 - * Device Capable of Summoning Emergency Assistance
 - * Portable Fire Extinguishers
 - * Spill Control and Decontamination Materials
 - * Water at Adequate Volume and Pressure
- * Must Test and Maintain All Equipment
- * Must Have Sufficient Aisle Space



**WASTE MANAGEMENT
& RADIATION CONTROL**

AISLE SPACE

Inadequate



Adequate



**WASTE MANAGEMENT
& RADIATION CONTROL**

SQG Preparedness and Prevention

R315-262-16

- * Notify Local Fire, Police, Emergency Response Teams and Hospitals **or LEPCs**
- * Waiver for 24 Hour Internal Response
- * Ensure that Employees are Familiar with Proper Waste Handling and Emergency Procedures
- * Emergency Coordinator On Site or On Call



**WASTE MANAGEMENT
& RADIATION CONTROL**

SQG Preparedness and Prevention

R315-262-16

Posted Near the Phone

- * Name and Number of Facility Emergency Coordinator(s)
- * Location of Fire Extinguishers
- * Location of Spill Control Equipment
- * Location of Fire Alarms
- * Telephone Number of the Fire Department



**WASTE MANAGEMENT
& RADIATION CONTROL**

Emergency Contact(s) Telephone Posting

This information is to be posted next to telephones or in areas of a small quantity generator of hazardous waste (SQG) directly involved in the generation and accumulation of hazardous waste. [R315-262-16(b)(9)(ii)]

Emergency Coordinator(s):

Emergency Coordinator Name	Emergency Telephone Number

Emergency Contacts:

Emergency Contact	Phone Number
Fire Department (<i>unless direct alarm</i>)	
The following emergency contact information is not required but is recommended.	
Police Department	
Hospital	
State Emergency/Spill Notification or Reporting	801-536-0200/801-536-4123
Local/Regional Notification or Reporting (<i>e.g., LEPC</i>)	
National Response Center (<i>24-Hour</i>)	1.800.424.8802

Location of Emergency Response Equipment:

Fire extinguishers	
Spill control material	
Fire alarm (<i>if present</i>)	

Large Quantity Generators LQG



**ENVIRONMENTAL
QUALITY**

WASTE MANAGEMENT & RADIATION CONTROL

LQG Requirements

R315-262-17

- * LQGs Must Obtain an EPA Identification Number Using Site ID Form (EPA Form 8700-12) (R315-262-18)
- * All LQGs Must Re-Notify the Division by March 1 of Each Even-Numbered Year with Biennial Report
- * Accumulate Hazardous Waste Onsite for No More than 90 Days



**WASTE MANAGEMENT
& RADIATION CONTROL**



LQG Container Requirements

R315-262-17

Containers

- * Compatible with the Waste and In Good Condition
- * Keep Containers Closed
- * Label Containers with the Words “Hazardous Waste”
and an Indication of the Hazards of the Contents
- * Not Handle or Store Containers so that They Might Rupture, Leak or Be Damaged
- * Inspect Central Accumulation Areas Weekly



**WASTE MANAGEMENT
& RADIATION CONTROL**

Labeling Requirements At the Point of Generation

IGNITABLE
CORROSIVE
REACTIVE
TOXIC



EPA Characteristics

DOT Shipping Labels

OSHA GHS Pictograms

NFPA 704 Labels



**WASTE MANAGEMENT
& RADIATION CONTROL**

Labeling Requirements Prior to Shipping

**HAZARDOUS
WASTE**

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY
AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

GENERATOR INFORMATION:

NAME Generic College
ADDRESS 123 College Street PHONE (800)123-4567
CITY College Town STATE CT ZIP 06032
MANIFEST TRACKING NO. 123456789ABC ACCUMULATION START DATE 12/10/2007
EPA ID NO. CTD000123456 EPA WASTE NO. D002

[Waste Corrosive Liquids, N.O.S., 8, UN 1760,
III (Sulfuric Acid, Hydrochloric Acid)]

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO., WITH PREFIX

HANDLE WITH CARE!

STYLE WMS

LABELMASTER® (800) 621-5808 www.labelmaster.com



**WASTE MANAGEMENT
& RADIATION CONTROL**



**WAST
& RAD**

LQG Container Storage

R315-262-17(a)(1)(vi)

Conditions for Accumulation of Ignitable and Reactive Wastes

- * 50 Feet from Property Line **Approved in Writing**
- * Prevent Accidental Ignition or Reaction
 - * Protect from sources of ignition
 - * No Smoking signs posted



**WASTE MANAGEMENT
& RADIATION CONTROL**



2924
3

ALCO
0 - 777 - 6782

1-800-777-6782

CAUTION! THIS TANK
MUST BE VENTED PRIOR
TO DISCHARGE

CAUTION! THIS TANK
MUST BE VENTED PRIOR
TO DISCHARGE

PRECISION
IP

HAZARDOUS
WASTE

2924
3

UN2924
UN2924

EV
966

2725 kg max

LQG Central Accumulation Area

R315-262-17(a)

- * 90-Day Areas
- * Containers
 - * Labeling – accumulation start date
 - * Special requirements
 - * Inspect Weekly
 - * Preparedness & Prevention
 - * Emergency Procedures
 - * Training



**WASTE MANAGEMENT
& RADIATION CONTROL**

LQG Preparedness & Prevention

R315-262-250 through 265

- * Must be Equipped with:
 - * Internal Communication or Alarm System
 - * Device Capable of Summoning Emergency Assistance
 - * Portable Fire Extinguishers/Fire Control Equipment
 - * Spill Control and Decontamination Materials
 - * Water at Adequate Volume and Pressure
- * Must Test and Maintain All Equipment
- * Must Have Sufficient Aisle Space



**WASTE MANAGEMENT
& RADIATION CONTROL**

LQG Preparedness & Prevention

R315-262-250 through 265

- * Attempt to Make Arrangements with Local Fire, Police, Emergency Response Teams and Hospitals or LEPCs
 - * Determine potential need
 - * Familiarize with facility layout
 - * Document attempts and arrangements
- * Emergency Coordinator On Site or On Call



LQG HW Contingency Plan

R315-262-250 through 265

- * Written Hazardous Waste Contingency Plan must include:
 - * Description of Actions to be Taken
 - * Descriptions of Arrangements Agreed to by Local Emergency Responders or LEPCs
 - * Names and Phone Numbers of Emergency Coordinators or Position Title and Phone Number
 - * List of Emergency Equipment
 - * Evacuation Plan



**WASTE MANAGEMENT
& RADIATION CONTROL**



LQG Hazardous Waste Contingency Plan

R315-262-250 through 265

- * Spill Prevention, Control and Countermeasures Plan (SPCC) or “One Plan”
- * Copies of the Contingency Plan
- * Amendment of the Plan



**WASTE MANAGEMENT
& RADIATION CONTROL**

LQG HW Contingency Plan

R315-262-250 through 265

* Quick Reference Guide

- * Types/Names of Hazardous Waste and Hazards
- * Estimated Maximum Amounts of Waste
- * Wastes Where Exposure Would Require Unique/Special Medical Treatment
- * Maps of Waste Locations and Routes of Access and Evacuation
- * Location of Water Supply
- * Identification of On-Site Notification Systems
- * Names and Phone Numbers of Emergency Coordinators



**WASTE MANAGEMENT
& RADIATION CONTROL**

EXAMPLE QUICK REFERENCE GUIDE

This example was created by EPA Region 7 to be used as a guide to assist the regulated community with compliance. It does not substitute for or replace any regulatory requirements.

Contingency plan quick reference guide

ABC FACILITY

1000 SW Main Street

Anytown, Iowa 50000

Facility Contacts:

Primary Emergency Coordinator: George Washington Mobile Number (24/7): 515-555-0000

Secondary Emergency Coordinator: Abraham Lincoln Mobile Number (24/7): 515-555-0001

Tertiary Emergency Coordinator: Martha Washington Mobile Number (24/7): 515-555-0002

Note: ABC Facility operates 3 shift, 24/7, but the order of contact during an emergency is listed above.

Hazardous Waste Information:

Name of Waste	Waste Codes/Hazards	Location Accumulated	Maximum Amounts Present	Response Notes	Special Notes to Hospital/Treatment personnel
Paint Related Wastes (liquid)	D001 (ignitability, flash point <140 °F); F003, F005 (Benzene, Methyl Ethyl Ketone, Toluene, Toxicity)	NW corner of Warehouse, hazardous waste storage area	Five, 55-gallon drums (2,065 pounds)	If personnel come into direct contact with material, decontamination at the hospital may be required prior to treatment.	None
Paint Related Wastes (liquid)	D001 (ignitability, flash point <140 °F); F003, F005 (Benzene, Methyl Ethyl Ketone, Toluene, Toxicity)	Two Satellite Accumulation Areas as noted with blue asterisks on the attached map.	One, 55-gallon drum (440 pounds)	If personnel come into direct contact with material, decontamination at the hospital may be required prior to treatment.	None
Off-specification 2, 4-D , a herbicide, (brand name is Amine 4) (liquid)	D016 (toxicity); Flashpoint 190 °F.	SW corner of warehouse near new product storage of Amine 4.	Off-Spec – 1 tank, 1,000 gallons New product – 1 tank (same tank as off-spec), 1,000 gallons	Use PPE to prevent contact with skin and eyes. Immediately prevent spills from entering drains and waterways. Prevent sources of ignition and open flames.	Contact Chemtrac for emergency medical treatment information at 1-800-424-9300. If in eyes, wash eyes for several minutes.



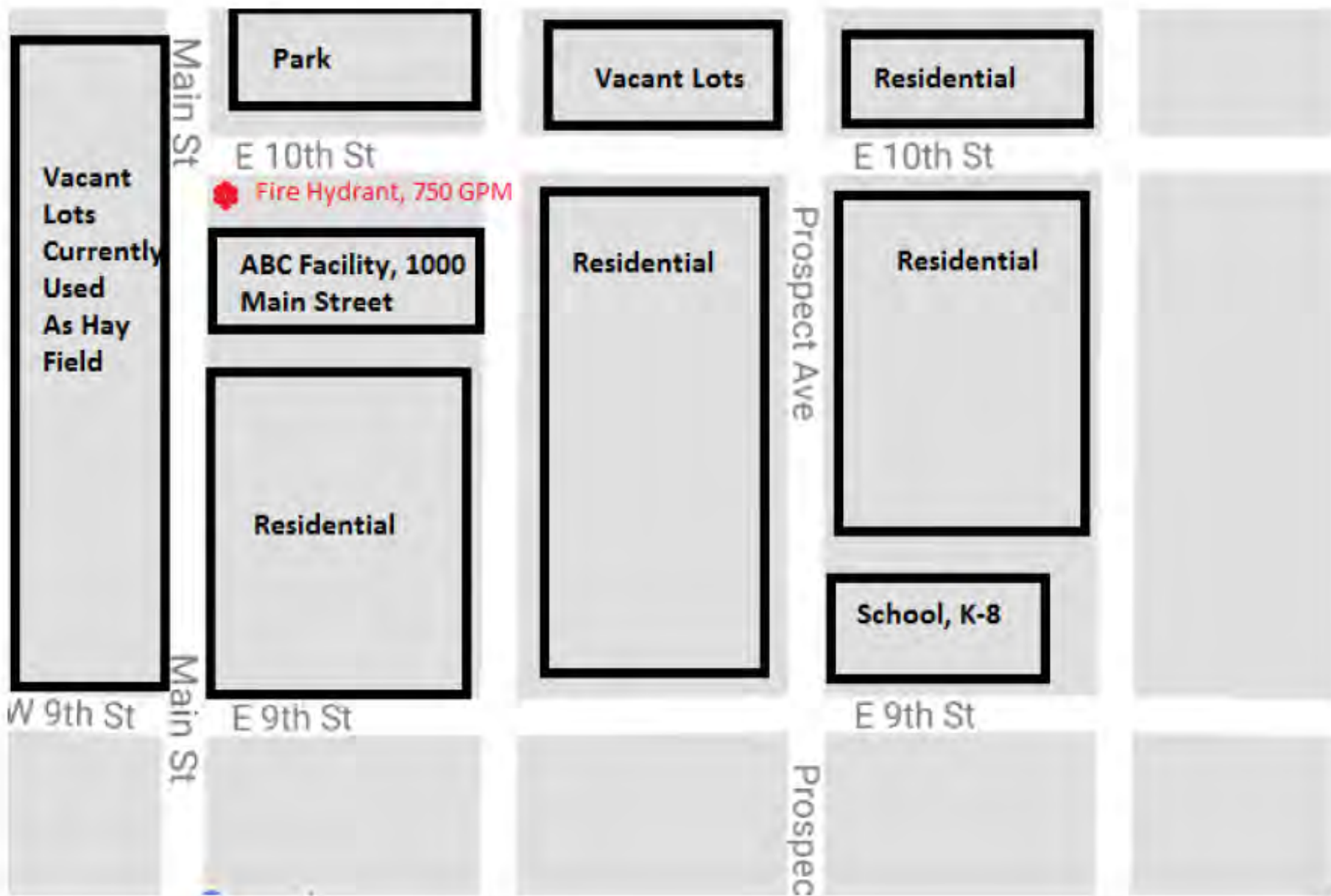
- * Satellite Accumulation Area for Paint Related Waste Material (D001, F003, F005)
- ★ Fire Alarms (ring on-site only, there are no fire alarms that notify off-site personnel)
- ★ Telephone for off-site notification of emergency

→ Indicates evacuation route out of the building.

Note 1: Hazardous waste (paint related waste) is generated and accumulated inside each of the two paint booths, and is accumulated in the hazardous waste storage area. Amine 4 can be a hazardous waste if it is off-specification and it is generated and accumulated in the SW corner at the Amine 4 tank.

Note 2: Smoke detectors are located throughout the office and main warehouse on the ceiling, in a grid about every 25 feet. Smoke detectors are connected to an automatic sprinkler system.

Street Map



LQG Emergency Procedures

R315-262-250 through 265

- * Emergency Procedures Performed by Emergency Coordinator
 - * Imminent or Actual Emergency Situation
 - * Activate Alarms, Notify Agencies
 - * Identify Character, Source, Amount and Extent of Release
 - * Assess Hazards to Human Health and Environment
 - * Report and Notify
 - * Don't leave out Waste Management and Radiation Control at 801-536-0200; after hours 801-536-4123
 - * Take Reasonable Measures to Prevent Spread
 - * Document in Operating Record and Submit Final Report



**WASTE MANAGEMENT
& RADIATION CONTROL**

LQG Training

R315-262-17

- * Facility Personnel Must Successfully Complete Training
 - * Relevant Hazardous Waste Management Procedures
 - * Response to Emergencies
 - * HAZWOPER Can be Used
 - * Complete Within Six Months and Annually
 - * Rules Explicitly Allow Computer-Based Training



LQG Training

R315-262-17

Documentation and Records

- * Job Title and Name
- * Job Description
- * Type and Amount of Introductory and Continuing Training
- * Record of Training for Each Employee
 - * Current
 - * Former



Job Title / Environmental Responsibilities	General Awareness	Job Specific RCRA	Job Specific Other"	Emergency Response	Employee
ENVIRONMENTAL MANAGER Primary HW emergency coordinator; sampling and characterizing wastes; hazardous waste handling and cleanup; prepare drums and shipping papers and manifests for shipment; recordkeeping; training.	New Hire RCRA; Annual Onsite RCRA	Initial 40 hr RCRA		Annual Emergency Contingency Plan (ECP) Training	
ENVIRONMENTAL ENGINEER Alternate HW emergency coordinator; sampling and characterizing wastes; hazardous waste handling and cleanup; prepare drums and shipping papers and manifests for shipment; recordkeeping; training.	New Hire RCRA; Annual Onsite RCRA	Initial 40 hr RCRA	Full DOT HAZMAT-every 3 years	Annual ECP Training; HAZWOPER w/Annual refresher	
OPERATORS Hazardous waste handling and cleanup; prepare hazardous waste for shipment; prepare shipping papers and manifests for shipment; recordkeeping.	New Hire RCRA; Annual Onsite RCRA	Annual (job-specific) training	Full DOT HAZMAT-every 3 years	Annual ECP Training; HAZWOPER or RCRA training w/Annual refresher	
WATER TREATMENT OPERATORS Emergency Response	New Hire RCRA; Annual Onsite RCRA		DOT- Warehouse-every 3 years	Annual ECP Training; HAZWOPER w/Annual refresher	
ENVIRONMENTAL SPECIALIST Sampling and characterizing wastes; hazardous waste handling and cleanup; prepare drums and shipping papers and manifests for shipment; recordkeeping; training.	New Hire RCRA; Annual Onsite RCRA	Initial 40 hr RCRA Annual RCRA Refresher	Full DOT HAZMAT-every 3 years	Annual ECP Training; HAZWOPER w/Annual refresher	
ENVIRONMENTAL Technician Prepare shipping papers and manifests for shipment; recordkeeping; training.	New Hire RCRA; Annual Onsite RCRA		Full DOT HAZMAT-every 3 years	Annual ECP Training; HAZWOPER w/Annual refresher	

LQG Central Accumulation Area Closure

- * Closure Notification Standards for Units (R315-262-17(a)(8))
 - * Notice in Facility Operating Record
or
 - * Meet Closure Performance Standards and Notify
 - * Minimize or Eliminate Post-Closure Escape of Waste
 - * Remove or Decon Equipment, Structures, Soil and Residue
 - * Close as a Landfill



LQG Unit Closure

- * Facility Closure Notification
 - * Notify 30 Days Prior to Closing
 - * Comply with Closure Performance Standards
 - * Notify 90 Days After Closing
 - * Can Request Extension to the 90 Days



VSQG Consolidation R315-262-14 and 17(f)

- * Applies Only to a VSQG and a LQG Under the Control of the Same Person (Company)
 - * See R315-260-10 for Definition of “Person”
- * VSQG Requirements
 - * Label Containers with the Words “Hazardous Waste” and **New Labeling Requirements**
- * No Hazardous Waste Manifest is Required and Hazardous Waste Transporters Do Not Have to be Used
- * Applies Only to VSQGs – SQGs Cannot Consolidate Waste to a LQG



New VSQG Consolidation R315-262-17(f)

LQG Requirements

- * Notifies the Director Using Site ID Form (EPA Form 8700-12) and Identifies Which VSQGs are Participating
- * Recordkeeping for Each Shipment – Normal Business Records
- * Manages Consolidated Waste as LQG Hazardous Waste
- * Adds Accumulation Start Date to Container Labels
- * Biennial Reporting Will Use a Different Source Code for the VSQG Consolidated Waste to Distinguish from the LQG's Own Generated Waste



Satellite Accumulation

R315-262-15

- * At or Near the Point of Generation
- * Under the Control of the Operator
- * 55 Gallons or **Either 1 Quart or 2.2 Pounds (1 Kilogram)**
- * **“Hazardous Waste”** and Indication of Hazards
- * Containers Kept Closed **Except Under Limited Circumstances**
- * Container Must be Dated and Moved to a Central Accumulation Area or Offsite Within 3 **Consecutive Calendar Days**



**WASTE MANAGEMENT
& RADIATION CONTROL**

Questions?

Deborah ng

dng@utah.gov

(801)-536-0218

Judy Moran

jmoran@utah.gov

(801)-536-0255



**WASTE MANAGEMENT
& RADIATION CONTROL**

Frequent Hazardous Waste Violations

- * No Waste Determination – commercial products, unknowns, antifreeze
- * Containers – open, labeling
- * Training – not documented, no job descriptions or don't include hazardous waste duties, manifest signers not trained, type & amount of initial and continuing training not documented
- * Contingency Plan not current because emergency coordinator changed; contingency plan missing various elements
- * No quick reference guide
- * Manifest and LDR records incomplete

