

RCRA-C: HAZARDOUS WASTE MANAGEMENT COMPLIANCE ASSISTANCE

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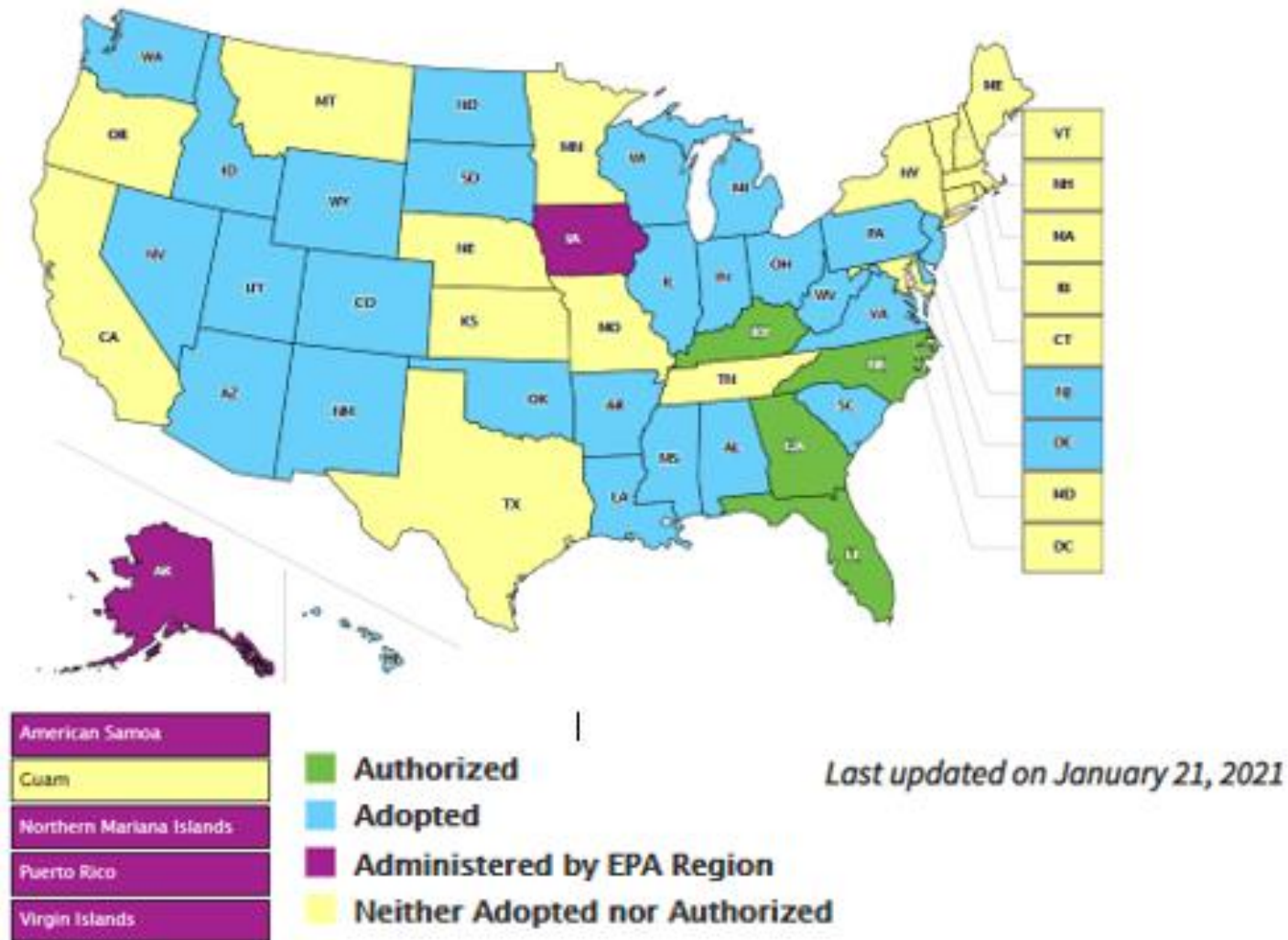
COMMON RCRA HAZARDOUS WASTE MANAGEMENT DEFICIENCIES FOUND
DURING INSPECTIONS CONDUCTED UNDER THE
FEDERAL FACILITIES INSPECTION INITIATIVE (2000 - 2007)

Type of Deficiency	% of Total Inspections
Hazardous Waste Management Deficiencies	72
Universal Waste Management Deficiencies	49
Inadequate Waste Determinations	23
Contingency Plan and Emergency Response Deficiencies	33
Training Deficiencies	31

HAZARDOUS WASTE GENERATOR IMPROVEMENTS RULE (81 FR 85732)

- ▶ Final Rule issued on November 28, 2016.
- ▶ Effective Date of May 31, 2017.
- ▶ The changes promulgated under the rule are promulgated under non-Hazardous and Solid Waste Amendments (HSWA) authority.
- ▶ States with authorized programs are required to modify their programs to incorporate those federal regulations that are more stringent or broader in scope than their already authorized regulations.
- ▶ For those changes that are less stringent, it is up to the States if they want to modify their programs.
- ▶ This presentation addresses only some of the new more stringent requirements in the Hazardous Waste Generator Improvements Rule.

WHERE IS THE GENERATOR IMPROVEMENTS RULE IN EFFECT?



HAZARDOUS WASTE DETERMINATION

- ▶ What changed under the Hazardous Waste Generator Improvements Rule?
 - ▶ The Rule clarifies and emphasizes that waste determinations must be accurate!
 - ▶ The Rule confirms when a generator's hazardous waste determination must be made;
 - ▶ Elaborates on how to determine if a solid waste is either a listed and/or characteristic hazardous waste;
 - ▶ Reiterates what waste determination records must be kept; and
 - ▶ Requires SQGs and LQGs to identify and mark RCRA waste codes on containers prior to sending hazardous waste off-site per 40 CFR § 262.32

HAZARDOUS WASTE DETERMINATION

- ▶ Hazardous Waste determinations are required to:
 - ▶ Determine whether a solid waste is a hazardous waste to ensure that the wastes are properly managed according to applicable RCRA regulations;
 - ▶ Determine whether a solid waste is excluded from regulation;
 - ▶ Determine applicability of Subpart AA of 40 CFR Parts 264 and 265 (i.e., determine whether the hazardous waste has an organic concentration of at least 10 ppmw);
 - ▶ Determine applicability of Subpart BB of 40 CFR Parts 264 and 265 (i.e., determine whether the hazardous waste has an organic concentration greater than 10 percent, and whether it is a “light liquid” or a “heavy liquid”);

HAZARDOUS WASTE DETERMINATION

- ▶ Hazardous Waste determinations are required to (continue):
 - ▶ Determine whether the hazardous waste is exempted from all or some of the requirements of Subpart CC of 40 CFR Parts 264 and 265 (i.e., whether a hazardous waste has an average volatile organic concentration of less than 500 ppmw, or whether the hazardous waste is a “light material”); and
 - ▶ Determine if the hazardous waste is exempted from the ban on open burning of hazardous wastes in 40 CFR 265.382 (i.e., determine whether the hazardous waste meets the definition of waste explosives that have the potential to detonate or whether the hazardous waste meet the definition of a bulk military propellant which cannot safely be disposed of through other modes of treatment).

HAZARDOUS WASTE DETERMINATION

► When to do the Hazardous Waste Determination

The hazardous waste determination for each solid waste must be made at the point of waste generation, before any dilution, mixing, or other alteration of the waste occurs, and at any time in the course of its management that it has, or may have, changed its properties as a result of exposure to the environment or other factors that may change the properties of the waste such that the RCRA classification of the waste may change.

HAZARDOUS WASTE DETERMINATION

Hazardous Waste Determination Recordkeeping Requirements for Small and Large Quantity Generators

- ▶ The generator must maintain records supporting its hazardous waste determinations, including records that identify whether a solid waste is a hazardous waste.
- ▶ Records must be maintained for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.
- ▶ The periods of record retention are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the EPA Administrator.
- ▶ These records must comprise the generator's knowledge of the waste and support the generator's hazardous waste determination.

HAZARDOUS WASTE DETERMINATION

Hazardous Waste Determination Recordkeeping Requirements for Small and Large Quantity Generators (continue)

- ▶ The records must include, but are not limited to:
 - ▶ The results of any tests, sampling, waste analyses, or other determinations made to support the hazardous waste determination;
 - ▶ Records documenting the tests, sampling, and analytical methods used to demonstrate the validity and relevance of such tests;
 - ▶ Records consulted to determine the process by which the waste was generated, the composition of the waste, and the properties of the waste; and
 - ▶ Records which explain the knowledge basis for the generator's hazardous waste determination.

HAZARDOUS WASTE DETERMINATION

- ▶ Acceptable knowledge may include:
 - ▶ Information about chemical feedstocks and other inputs to the production process;
 - ▶ Knowledge of products, by-products, and intermediates produced by the manufacturing process;
 - ▶ Chemical or physical characterization of wastes;
 - ▶ Information on the chemical and physical properties of the chemicals used or produced by the process or otherwise contained in the waste;
 - ▶ Testing that illustrates the properties of the waste; or
 - ▶ Other reliable and relevant information about the properties of the waste or its constituents.

HAZARDOUS WASTE DETERMINATION

When available knowledge is inadequate to make an accurate determination, the person must test the waste according to the applicable methods set forth in Subpart C of 40 CFR Part 261 or according to an equivalent method approved by the Administrator under 40 CFR §260.21 and in accordance with the following:

- ▶ Persons testing their waste must **obtain a representative sample of the waste for the testing**, as defined at 40 CFR §260.10.
- ▶ Where a test method is specified in subpart C of 40 CFR part 261, the results of the regulatory test, when properly performed, **are definitive for determining the regulatory status of the waste**.

HAZARDOUS WASTE DETERMINATION

Generators may take a conservative approach and manage non-HW as HW if they so choose.

For waste where the generators are awaiting test results, the generators need to manage it as HW until they get confirmation. (If it's not HW, the generators can simply remove the labels and manage the waste as non-hazardous solid waste.)

Satellite Accumulation Areas

In general, SQGs and LQGs may accumulate as much as 55 gallons of non-acute hazardous waste and/or either one quart of liquid acute hazardous waste or 1 kg (2.2 lbs.) of solid acute hazardous waste [1] in containers [2] at or near any point of generation where wastes initially accumulate [3] which is under the control of the operator [4] of the process generating the waste, without a permit or interim status and without complying with the requirements, provided that:

- ▶ The container is in good condition {if not, must immediately transfer the hazardous waste from the damaged container to a container that is in good condition, or immediately transfer and manage the waste in a Central Accumulation Area (formerly known as 180/270-days HWAA for SQGs or less-than-90-days HWAA for LQGs)};
- ▶ The container is compatible with the hazardous waste to be accumulated;
- ▶ Incompatible wastes and materials are not placed in the same container, and the container holding a hazardous waste that is incompatible with any waste or other materials accumulated nearby in other containers is kept separated from the other materials or protected from them by practical means {otherwise must comply with the requirements in 40 CFR 265.17(b)};
- ▶ The container holding hazardous waste is kept be closed at all times during accumulation {unless adding, removing, or consolidating waste; or when temporary venting of a container is necessary; or for the proper operation of equipment; or to prevent dangerous situations, such as build-up of extreme pressure.};
- ▶ The container is marked or labeled with the words “Hazardous Waste” AND an indication of the hazards of the contents.

Satellite Accumulation Areas

(continue)

- ▶ A generator who accumulates more than one quart of liquid acute hazardous waste or more than 1 kg (2.2 lbs.) of solid acute hazardous waste, or more than 55 gallons of non-acute hazardous waste must
 - ▶ Comply within **three consecutive calendar days** with the applicable Central Accumulation Area regulations in 40 CFR 262.16(b) {for SQGs} or 40 CFR 262.17(a) {for LQGs}, or
 - ▶ Remove the excess from the satellite accumulation area within **three consecutive calendar days** to either:
 - (A) A central accumulation area operated in accordance with the applicable regulations in §262.16(b) or §262.17(a);
 - (B) An on-site interim status or permitted treatment, storage, or disposal facility, or
 - (C) An off-site designated facility
 - ▶ During the **three-consecutive-calendar-day period** the generator must continue to comply with the SAA container requirements [40 CFR §262.15(a)(1) through (5)]. The generator must mark or label the container(s) holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

Satellite Accumulation Areas

Additionally:

- ▶ **All satellite accumulation areas operated by a small quantity generator must meet the preparedness and prevention regulations of 40 CFR §262.16(b)(8) and emergency procedures at 40 CFR §262.16(b)(9).**
- ▶ **All satellite accumulation areas operated by a large quantity generator must meet the Preparedness, Prevention and Emergency Procedures in Subpart M of 40 CFR part 262.**

Satellite Accumulation Areas

55-GALLON LIMIT

- ▶ If more than one hazardous waste is generated at a given location that cannot be co-mingled in one container, the facility must manage the waste in smaller containers or move the waste to permanent storage when larger containers are less than full. **The number of containers is not regulated.** For example, an accumulation area may have [more than one 55-gallon containers] 55 one-gallon containers [but the total quantity cannot exceed 55 gallons].
- ▶ The preamble clearly finds that multiple accumulation areas next to each other, each with a 55-gallon limit, does not meet the requirement of satellite accumulation.



Satellite Accumulation Areas

- ▶ **AT OR NEAR.** The distance the accumulation area is allowed to be from the operator generating the waste is unspecified but it is intended to be as close as possible.
- ▶ **ANY POINT OF GENERATION** means the number of satellite areas allowed is only limited by the number of hazardous waste generation points. Each point of generation is permitted to have a satellite accumulation associated with it.
- ▶ **WHERE WASTES INITIALLY ACCUMULATE** indicates that multiple wastes streams were considered when the 55-gallon hazardous waste (or one quart of liquid acute hazardous waste or more than 1 kg (2.2 lbs.) of solid acute hazardous waste) limit was set for each location.
- ▶ **UNDER THE CONTROL OF THE OPERATOR** means that the operator is someone familiar with the operations generating the HW; that the operator is aware of and able to attend to these operations, if needed; and that some measure of controlled access is provided.

Satellite Accumulation Areas

REGION 3'S POSITION

- ▶ The satellite accumulation area has to be in the line of sight of the operator when he or she is in their assigned area of responsibility. Waste stored around the corner, in the next room, or outside the building, even if for safety reasons, does not qualify as a satellite accumulation area. These areas are subject to the less than 90 day rules.
- * The revisions to SAA Standards under the Hazardous Waste Generator Improvements Rule rescind the memo allowing reactive hazardous waste to be stored away from the point of generation. If waste is so dangerous it needs to be stored separately, then it needs to go directly to the CAA.

Satellite Accumulation Areas

CAVEATS:

- ▶ The operator of the process generating the waste is an individual or individuals working in a single process area, not a corporate entity or the “person responsible for the overall operation of the facility” as defined in 40 CFR §260.10
- ▶ A satellite accumulation area can be in a Central Accumulation Area as long as it is in the line of sight of the operator.
- ▶ The situation where the operator is not always at the location, such as a painter who works all over a large facility and generates solvent waste during equipment clean-up at the paint shop, can still qualify for satellite accumulation as long as the satellite area is under the painter’s control when he or she is in the shop clean up area generating the waste. This is analogous to an operator not being at the point of generation when the work day is over. As long as no waste is being generated when the operator is not present, the requirements for satellite accumulation have been met.

Satellite Accumulation Areas

Some examples of demonstrating the SAA is under the control of an operator:

- ▶ The operator controls access to SAA by access card, key, or lock box.
- ▶ The operator accumulates waste in a locked cabinet and controls access to the key (even if access to the room is not controlled).
- ▶ The operator is regularly in view of the SAA during the course of their job.
- ▶ The operator is able to see if anyone enters or exits the SAA.

SAA AT OR NEAR ANY POINT OF GENERATION ?



CLOSED CONTAINERS

REQUIREMENTS:

- ▶ For Satellite Accumulation Areas, 40 CFR §262.15(a)(4) states that:
 - “A container holding hazardous waste must be closed at all times during accumulation, except:
 - (i) When adding, removing, or consolidating waste; or
 - (ii) When temporary venting of a container is necessary...”
- ▶ For Small and Large Quantity Generators that accumulate hazardous waste in Central Accumulation Areas, 40 CFR §262.16(b)(2)(A) and §262.17(a)(1)(iv)(A), respectively, state that:
 - “...A container holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste.”
- ▶ For TSDFs and interim TSDFs, 40 CFR §264.173(a) and §265.173(a), respectively, state that:
 - “...A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.”
- ▶ Furthermore; LQGs, TSDFs, and interim TSDFs are also required to comply with the container closure requirements in Subpart CC of 40 CFR Parts 264 and 265, as applicable, to control air emissions from containers.

CLOSED CONTAINERS

THE ISSUE

- ▶ The existing federal RCRA Subtitle C container regulations do not define "closed container."
- ▶ The May 19, 1980, preamble to the final rule at 45 FR 33199 associated with the first set of RCRA hazardous waste regulations explains the rationale for requiring containers storing hazardous wastes to be closed as follows:

“...Its purpose is, as it was originally, to minimize emissions of volatile wastes, to help protect ignitable or reactive wastes from sources of ignition or reaction, to help prevent spills, and to reduce the potential for mixing of incompatible wastes and direct contact of facility personnel with waste.”
- ▶ Because of different operational scenarios, a number of states issued technical guidance defining more precisely how to accumulate hazardous waste in containers.

CLOSED CONTAINERS

WHAT ARE INSPECTORS GENERALLY LOOKING FOR

- ▶ As inspectors, we will generally consider a container of hazardous wastes to be “closed” when all openings or lids are properly and securely affixed to the container, except when wastes are actually being added or removed from the container, to prevent the release of any volatile (or organic) emissions, and to prevent a spill if the container is tipped over.
- ▶ For typical containers, such as 55-gallon drums; EPA recommends that a container cover be properly secured with snap rings tightly bolted; bungholes capped, and; where appropriate, pressure-vacuum relief valves, to maintain the container's internal pressure to avoid explosions.
- ▶ A container that does not have lids securely affixed (e.g., a bolted ring clamp or locked funnel lid) could be considered closed if there is complete contact between the lid and the rim all around the top of the container and the container is secured with a chain or strap to a wall, building support column, or to other containers to prevent a spill from the accidental overturning of the container.

Examples of Open Containers



LABELING AND MARKING OF CONTAINERS AND TANKS [40 CFR 262.16(b)(5) for SQGs and 262.17(a)(5) for LQGs]

Containers

- ▶ A generator must mark or label its containers with the following:
 - (A) The words **“Hazardous Waste”**;
 - (B) **An indication of the hazards of the contents** (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the DOT requirements for labeling and placarding; a hazard statement or pictogram consistent with the OSHA Hazard Communication Standard; or a chemical hazard label consistent with the National Fire Protection Association code 704); and
 - (C) The date upon which each period of accumulation begins clearly visible for inspection on each container (as applicable).

LABELING AND MARKING OF CONTAINERS AND TANKS [40 CFR 262.16(b)(5) for SQGs and 262.17(a)(5) for LQGs]

Tanks

- ▶ A generator accumulating hazardous waste in tanks must:
 - (A) **Mark or label its tanks with the words “Hazardous Waste”;**
 - (B) **Mark or label its tanks with an indication of the hazards of the contents** (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic); hazard communication consistent with the DOT requirements for labeling and placarding; a hazard statement or pictogram consistent with the OSHA Hazard Communication Standard; or a chemical hazard label consistent with the National Fire Protection Association code 704); and;
 - (C) **Use inventory logs, monitoring equipment, or other records to demonstrate compliance with the accumulation time limit** (180 days, for SQGs, or 90 days, for LQGs); and
 - (D) **Keep inventory logs or records with the above information on site and readily available for inspection.**

LABELING AND MARKING OF CONTAINERS AND TANKS [40 CFR 262.16(b)(5) for SQGs and 262.17(a)(5) for LQGs]

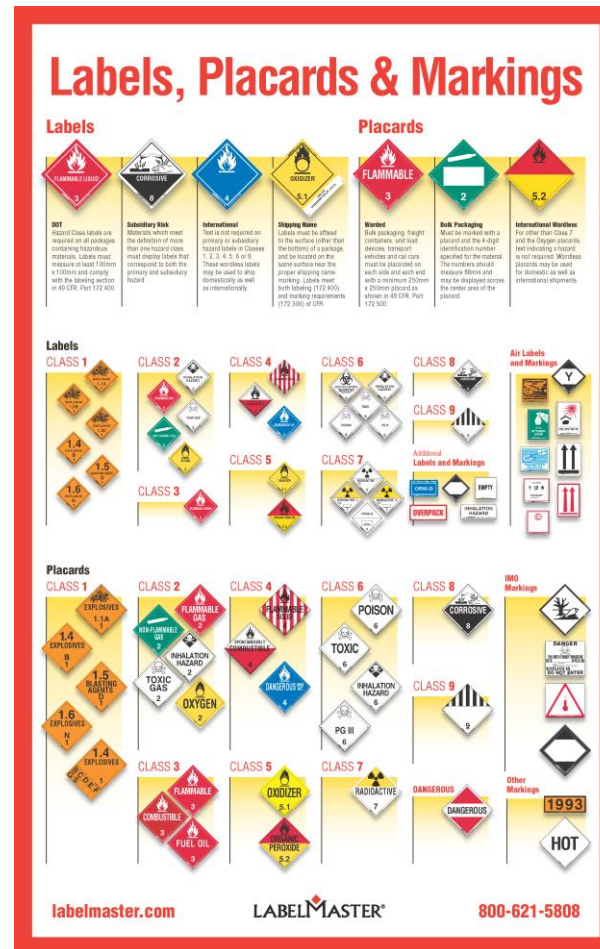
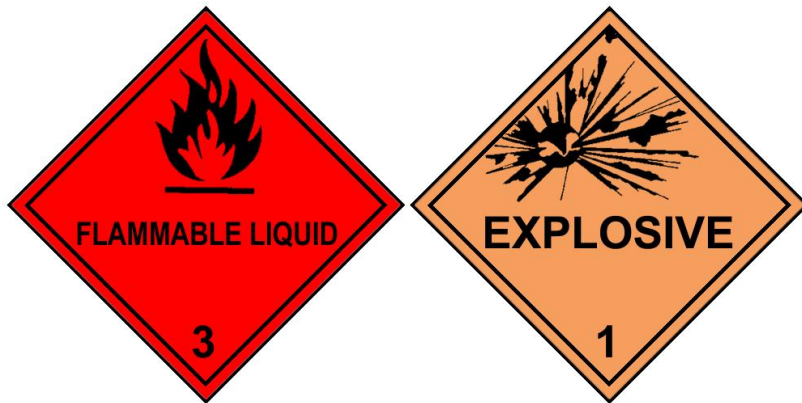
► Applicable Hazardous Waste Characteristics

HAZARDOUS WASTE			
Contents: (No Formulas or Abbreviations)			
<hr/>			
<hr/>			
<hr/>			
HAZARDS (CHECK THE HAZARD THAT BEST DESCRIBES THE CONTENTS OF THE CONTAINER)			
<input type="checkbox"/> IGNITABLE	<input type="checkbox"/> TOXIC	<input type="checkbox"/> CORROSIVE	<input type="checkbox"/> REACTIVE
<input type="checkbox"/> OXIDIZER	OTHER: _____		
DATE CONTAINER WHEN FULL OR READY FOR PICKUP			
____ ____ ____	BLD. _____	DEPT. _____	RM. _____
MANAGER: _____		TEL. _____	

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 <u>Generic College</u>	
ADDRESS <u>123 College Street</u>	PHONE <u>(800) 123-4567</u>
CITY <u>College Town</u>	STATE <u>CT</u> ZIP <u>06032</u>
MANIFEST TRACKING NO. <u>123456789ABC</u>	ACCUMULATION START DATE <u>12/10/2007</u>
EPA ID NO. <u>CTD000123456</u>	EPA WASTE NO. <u>D002</u>
Waste <u>Corrosive Liquids, N.O.S., 8, UN1760,</u> <u>III. (Sulfuric Acid, Hydrochloric Acid)</u>	
D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX	
HANDLE WITH CARE!	
STYLE WMB	
LABELMASTER® (800) 621-5808 www.labelmaster.com	

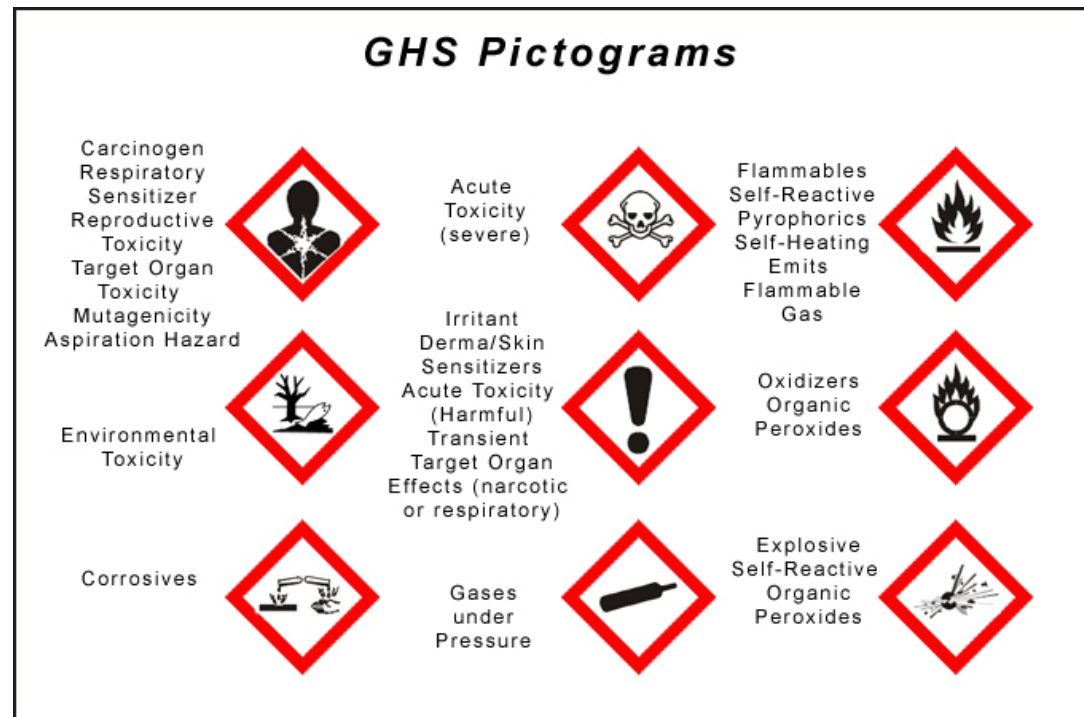
LABELING AND MARKING OF CONTAINERS AND TANKS [40 CFR 262.16(b)(5) for SQGs and 262.17(a)(5) for LQGs]

- ▶ Hazard communication consistent with DOT (49 CFR part 172 subpart E - labeling or subpart F - placarding)



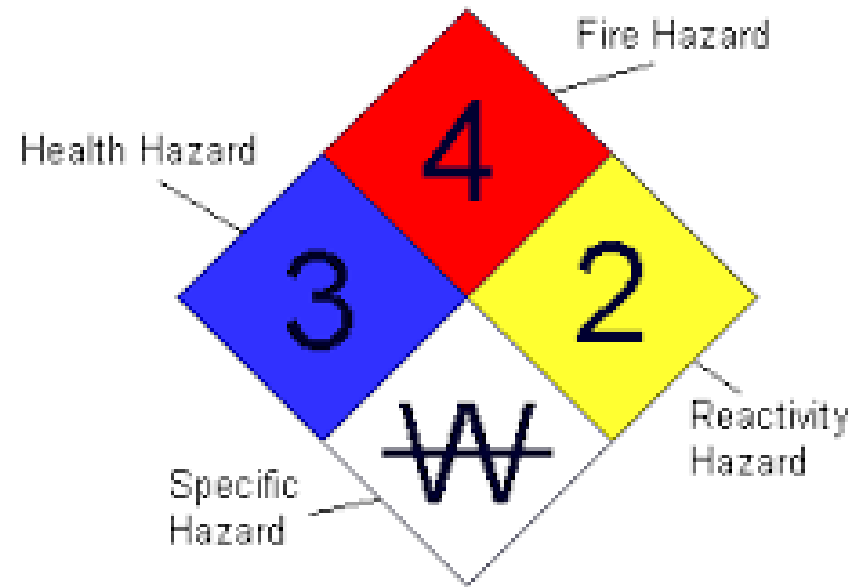
LABELING AND MARKING OF CONTAINERS AND TANKS [40 CFR 262.16(b)(5) for SQGs and 262.17(a)(5) for LQGs]

- ▶ Hazard statement or pictogram consistent with OSHA (29 CFR §1910.1200)



LABELING AND MARKING OF CONTAINERS AND TANKS [40 CFR 262.16(b)(5) for SQGs and 262.17(a)(5) for LQGs]

- ▶ Chemical hazard label consistent with the National Fire Protection Association code 704



PREPAREDNESS, PREVENTION, AND EMERGENCY PROCEDURES

General Requirements for Small Quantity Generators

- ▶ Generally, the requirements for SQGs remain the same, except for the following:
 - ▶ An SQG must attempt to make arrangements with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers and local hospitals, taking into account the types and quantities of hazardous wastes handled at the facility. Arrangements may be made with the Local Emergency Planning Committee, if it is determined to be the appropriate organization with which to make arrangements.
 - ▶ An SQG shall maintain records documenting the arrangements with the local fire department as well as any other organization necessary to respond to an emergency. (A facility possessing 24-hour response capabilities may seek a waiver from this requirement.)

PREPAREDNESS, PREVENTION, AND EMERGENCY PROCEDURES

General Requirements for Small Quantity Generators (continue)

- ▶ An SQG shall have, at least, **one emergency coordinator** either on the premises or on call with the responsibility for coordinating all emergency response measures.
- ▶ The SQG **must post the following information next to telephones or in areas directly involved in the generation and accumulation of hazardous waste:**
 - The name and emergency telephone number of the emergency coordinator;
 - Location of fire extinguishers and spill control material, and, if present, fire alarm; and
 - The telephone number of the fire department, unless the facility has a direct alarm.
- ▶ The SQG **must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures (i.e., training).**
- ▶ **The emergency coordinator (or his designee) must respond to any emergencies that arise and implement the applicable responses in 40 CFR 262.16(b)(9)(iv).**

PREPAREDNESS, PREVENTION, AND EMERGENCY PROCEDURES

General Requirements for Large Quantity Generators

Generally, the requirements for preparedness, prevention, and emergency procedures for LQGs remain the same, except that they have been moved to Subpart M of 40 CFR Part 262, which includes the following changes:

40 CFR §262.256: Arrangements with local authorities (Previously 40 CFR 265.37).

- ▶ A Large Quantity Generator must attempt to make arrangements with the local police department, fire department, other emergency response teams, **emergency response contractors, equipment suppliers and local hospitals**, taking into account the types and quantities of hazardous wastes handled at the facility. Arrangements may be made with the **Local Emergency Planning Committee**, if it is determined to be the appropriate organization with which to make arrangements.
- ▶ A Large Quantity Generator shall **maintain records documenting the arrangements with the local fire department as well as any other organization necessary to respond to an emergency**. This documentation must include documentation in the operating record that either confirms such arrangements actively exist or, in cases where no arrangements exist, confirms that attempts to make such arrangements were made. (A facility possessing 24-hour response capabilities may seek a waiver from this requirement.)

PREPAREDNESS, PREVENTION, AND EMERGENCY PROCEDURES

General Requirements for Large Quantity Generators (continue)

40 CFR §262.262: Copies of contingency plan. (Previously §265.53)

- ▶ The Large Quantity Generator must maintain a copy of the contingency plan and of all revisions to the plan and
 - ▶ The large quantity generator must submit a copy of the contingency plan and all revisions to all local emergency responders (i.e., police departments, fire departments, hospitals and State and local emergency response teams that may be called upon to provide emergency services). (This document may also be submitted to the **Local Emergency Planning Committee**, as appropriate.)
 - ▶ A large quantity generator that first becomes subject to the new provisions in Subpart M of 40 CFR Part 262 after May 30, 2017 or a Large Quantity Generator that is otherwise amending its contingency plan must at that time **submit a quick reference guide of the contingency plan to the local emergency responders** (or, as appropriate, the Local Emergency Planning Committee).
 - ▶ **The quick reference guide must be updated and submitted to the local emergency responders (or, as appropriate, the Local Emergency Planning Committee), if necessary, whenever the contingency plan is amended.**

PREPAREDNESS, PREVENTION, AND EMERGENCY PROCEDURES

40 CFR §262.262: Copies of contingency plan. (Previously 265.53) (continue)

- ▶ The **quick reference guide** must include the following elements:
 - (1) The types/names of hazardous wastes in layman's terms and the associated hazard associated with each hazardous waste present at any one time (e.g., toxic paint wastes, spent ignitable solvent, corrosive acid);
 - (2) The estimated maximum amount of each hazardous waste that may be present at any one time;
 - (3) The identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff;
 - (4) A map of the facility showing where hazardous wastes are generated, accumulated and treated and routes for accessing these wastes;
 - (5) A street map of the facility in relation to surrounding businesses, schools and residential areas to understand how best to get to the facility and also evacuate citizens and workers;
 - (6) The locations of water supply (e.g., fire hydrant and its flow rate);
 - (7) The identification of on-site notification systems (e.g., a fire alarm that rings off site, smoke alarms); and
 - (8) The name of the emergency coordinator(s) and 7/24-hour emergency telephone number(s) or, in the case of a facility where an emergency coordinator is continuously on duty, the emergency telephone number for the emergency coordinator.

PREPAREDNESS, PREVENTION, AND EMERGENCY PROCEDURES

General Requirements for TSDFs and Interim TSDFs

Generally, the requirements for preparedness, prevention, and emergency procedures for Large Quantity Generators remain the same.

CONTENT OF CONTINGENCY PLAN

- ▶ The Contingency Plan must describe the **actions facility personnel must take** in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.
- ▶ If the facility has already prepared a Spill Prevention, Control, and Countermeasures (SPCC), or some other emergency or Contingency Plan, it need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the Contingency Plan requirements. The facility may develop one Contingency Plan that meets all regulatory standards. EPA recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("**One Plan**").
- ▶ The Contingency Plan must **describe arrangements** agreed to with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, local hospitals or, if applicable, the Local Emergency Planning Committee.

CONTENT OF CONTINGENCY PLAN (continue)

- ▶ The Contingency Plan must list names and emergency telephone numbers of all persons qualified to act as emergency coordinator, and this list must be kept up to date.
- ▶ The Contingency Plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the Contingency Plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities (i.e., for what will it be used).
- ▶ The Contingency Plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary, and describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

UNIVERSAL WASTE (40 CFR Part 273)

- ▶ Universal waste:
 - ▶ Batteries
 - ▶ Pesticides
 - ▶ Mercury-Containing Equipment
 - ▶ Thermostats
 - ▶ Lamps
- ▶ Large quantity handler:
 - ▶ accumulates a total of 5,000 Kg or more of universal waste at any one time for this section only
- ▶ Small quantity handler:
 - ▶ accumulates a total of less than 5,000 Kg of universal waste at any one time for this section only

UNIVERSAL WASTE (40 CFR 273)

▶ BATTERIES (40 CFR §273.13(a)):

- ▶ Manage in a way that prevents release.
- ▶ If battery shows signs of leak spill or damage, battery must be placed in a container that is:
 - Closed
 - Structurally sound
 - Compatible with contents of battery
 - Not leaking or spilling or damaged such that it could cause leaking
- ▶ Handler may conduct the following activities:
 - Sorting battery types
 - Mixing battery types
 - Discharging
 - Regenerating
 - Disassembling
 - Removing from consumer product
 - Removing electrolyte (handler must determine if electrolyte is a hazardous waste and manage accordingly)

UNIVERSAL WASTE (40 CFR 273)

- ▶ LAMPS (40 CFR §273.13 (d)):
 - ▶ Manage in a way that prevents release.
 - ▶ Contain lamps in containers or package that is:
 - Structurally sound
 - prevents breakage
 - Compatible with contents
 - Closed
 - Not leaking or spilling or damaged such that it could cause leaking
 - ▶ If lamp is broken or damaged, must immediately clean up and place in a container that is closed, structurally sound, and compatible with contents of the lamp.

UNIVERSAL WASTE (40 CFR 273)

- ▶ MARKING/LABELING (40 CFR §273.14):
 - ▶ Each spent item or container must be marked using either:
 - Universal waste-battery(ies) or lamp(s);
 - Waste battery(ies) or lamp(s); or
 - Used battery(ies) or lamp(s).
- ▶ ACCUMULATION TIME LIMIT (40 CFR §273.15):
 - ▶ No longer than one year;
 - Unless solely to facilitate proper recovery, treatment, or disposal; and
 - Burden of proof is on the generator if >1 year.
 - ▶ Demonstrate length of storage by either:
 - marking the item or container with the earliest date it became a waste;
 - inventory system with same information;
 - inventory system for a group of items or container; or
 - placing in a specific accumulation area that identifies the earliest date.

UNIVERSAL WASTE (40 CFR 273)

- ▶ OFFSITE SHIPMENTS (40 CFR §273.18):
 - ▶ Prohibited unless to handler or destination facility.
 - ▶ May self-transport and must follow DOT rules.
 - ▶ Must ensure handler agrees to receive the shipment.
 - ▶ If rejected, return to shipper or mutually agreeable third-party handler.
- ▶ TRACKING UNIVERSAL WASTE (40 CFR §273.19):
 - ▶ A small quantity handler of universal waste is not required to keep records of shipments for universal waste.

UNIVERSAL WASTE: What is wrong with these pictures?





UNIVERSAL WASTE: Practical Solutions

DISCLAIMER

Please note that this presentation discusses only the federal hazardous waste regulations. States that are authorized to implement the RCRA program may have regulations that are different than the federal regulations, provided they are not less stringent than the federal program. Please consult your state regulatory requirements.