

Regulatory Compliance for the Marina Industry: Basic RCRA Compliance & Common Areas of Concern

U.S. Environmental Protection
Agency (EPA)
Region 1 New England

[Excellent Desk Reference:](#)

RCRA Orientation Manual

www.epa.gov/epaoswer/general/orientat/

RCRA Components

Subtitle C - Hazardous Waste

Subtitle D - Solid Waste

Subtitle I – Underground

Storage Tanks

Subtitle C – Cradle to Grave Control
of Hazardous Wastes

RCRA Subtitle C Goals

- ❑ protect human health and environment from improper management and disposal
- ❑ To conserve energy and natural resources [recycling/recovery]
- ❑ To reduce or eliminate the amount of waste generated

Statutory Definition of Solid Waste

....any garbage; refuse; sludge from a waste treatment plant, water supply plant or air pollution control facility; and other discarded material

[solid, liquid, semisolid, or gaseous]

SOLID WASTE NEED NOT BE SOLID!

Statutory Definition of Hazardous Waste

A "solid waste, or combination of solid wastes, which because of quantity, concentration, physical, chemical, or infectious characteristics may:

- 1) Cause, or significantly contribute to, increased mortality, serious irreversible, or incapacitating reversible, illness or
- 2) Pose a substantial current or potential hazard to human health/environment when improperly treated, stored, transported, or disposed of.

A Solid waste is hazardous if it:

- ❑ Exhibits specific characteristics of a hazardous waste
- ❑ Has been named and listed as a hazardous waste in the regulations
- ❑ Is a mixture containing a listed hazardous waste and a non-hazardous solid waste
- ❑ Is a waste derived from the treatment, storage, or disposal of a listed waste

Characteristic Hazardous Wastes

- ❑ Ignitability
- ❑ Reactivity
- ❑ Corrosivity
- ❑ Toxicity (via TCLP)

Three Lists of Hazardous Wastes

- ❑ Generic Industrial Processes
 - F-list [e.g. spent halogenated solvents]
- ❑ Specific Industrial Sectors
 - K-list [e.g. Hg-cell process Brine purification muds]
- ❑ Unused, Pure Commercial Chemical Products
 - P-List & U-List [e.g. DDT]

IT IS YOUR RESPONSIBILITY !!

As Owner/Operator, to know all the waste streams you generate and which ones are Hazardous Wastes and, therefore, regulated.

Do Hazardous Waste Determinations!!

EPA/Federal & State Regulations

- ❑ citation: 40 CFR Parts 260-299
- ❑ authorized states and their regulations
[equivalent or more stringent than feds]

HAZARDOUS WASTE DETERMINATIONS

- Generator's responsibility
- Process knowledge
- Analysis
- MSDS
- Expiration dates
- Variability of waste streams
- Cross contamination

Waste Activity Notification and Generator Classification

- ❑ Large Quantity >2200#LQG
(1 Kg Acutely Toxic Wastes)
- ❑ Small Quantity 220-2200#SQG
- ❑ Conditionally Exempt SQG (<220#).....CESQG

Amount Generated = Classification = accumulation
limits of Volume and Time

[There are State Variations- see State Regulations]

Depending on Your Classification, There Are Requirements for.....

- Record keeping

- Housekeeping

- Accumulation Time Limits

[3 days @ SAA, 90 days LQG, 180 days SQG]

- Emergency Preparedness Needs

- Employee Training

Specific Container Management Requirements for

Satellite vs. Main Hazardous
Waste Storage Areas

MANAGEMENT REQUIREMENTS in Main HW STORAGE AREAS

- Labeling
- Dating
- Compatibility
- Aisle space
- Open/Closed Containers
- Condition of containers
- Ignitable waste special requirements

Satellite Storage.....

- ❑ At or near point of generation
- ❑ Under the control of the operator of the process
- ❑ Less than 55-gallons of wastes – total
- ❑ Labeled “Hazardous Waste” or other words to describe contents
- ❑ Keep containers closed, except when adding or removing

CONTAINER STORAGE AREA INSPECTIONS

(Depending on Classification)

At least weekly, looking for leaks and for deterioration caused by corrosion or other factors.

MAY NEED TO DOCUMENT INSPECTIONS

Manifesting Wastes Requirements

Key to Cradle to Grave
Tracking

HAZARDOUS WASTE TRAINING

- Initial
- Annual refresher
- Documentation of training program and employee training records
- Relevant to job duties performed
- Training by a qualified person
- document Job titles and Job descriptions

RCRA Training is not OSHA or Emergency Response

PREPAREDNESS AND PREVENTION

Facilities must be maintained and operated to minimize the possibility of a fire, explosion or release of hazardous waste or hazardous constituents.

CONTINGENCY PLAN

- must be carried out immediately,
- describe detailed response actions,
- provide for arrangements with locals [PD, FD, Hosp.]
- designate Emergency Coordinator and alternates,
- identify emergency equipment and evacuation plans.

PREPAREDNESS AND PREVENTION

- ❑ Alarm system
- ❑ Communication devices
- ❑ Extinguishers
- ❑ Adequate water supply
- ❑ Adequate aisle space
- ❑ In-place arrangements with locals [fire, police, hospitals]

UNIVERSAL WASTE

Universal wastes are widely generated and widely recycled hazardous wastes. Management standards for these wastes are reduced to facilitate their recycling.

Types of UNIVERSAL WASTE

- Batteries
- Mercury containing thermostats
- Hazardous waste lamps [Hg]
- state specific UWs
- CRTs

Universal Waste Requirements..

- Containerized/Closed
- Labeled to describe content
- Dating
- Record keeping

RCRA Compliance Evaluation Inspection Outline [federal and state]

- ❑ Unannounced
- ❑ Opening Conference
- ❑ 1-2 days [generally]
- ❑ Physical inspection/Facility Tour
- ❑ Records Review
- ❑ Close-out Conference

Inspections (continued)

Close-Out Conference

- Ask for additional information.
- Review areas of concern.
- Explain potential follow up.
- All to comment or ask questions.

Post-Inspection

- Inspection Report
- Informal Response [letter or NOV]
- Information Requests
- Possible Case Development
- Several month process

Common Marina and Boat Building Wastes

- Paint and paint related wastes
- Aerosol cans
- Chemical stripping wastes
- Abrasive stripping wastes
- Equipment cleaning wastes
- Machine Shop wastes
- Engine Repair wastes
- Waste Oils, gear and lube oils

Common Wastes

- ❑ Transmission fluid
- ❑ Waste fuel
- ❑ Welding wastes
- ❑ Fiberglass fabrication (solvents, resins, gelcoat wastes)
- ❑ Leftover raw materials/ Off-spec products
- ❑ Acids and alkalis
- ❑ Metal finishing wastes

Common Wastes

- Pb/acid batteries
- Bilge water/bilge sludges
- Engine test tank waters
- Parts washer waste
- Rags
- Adhesive wastes

Common Wastes

- ❑ Electronics wastes
- ❑ Pesticides and herbicides
- ❑ Compressed gas cylinders
- ❑ Filters- fuel, oil, paint booth
- ❑ Antifreeze (benzene)
- ❑ Dust collection system residues
- ❑ Additional [but not comprehensive]: see hand-out

Common Violations Observed

- ❑ No/Inadequate HW Determinations
- ❑ Container Mismanagement
 - ❑ Open Containers
 - ❑ No or Poor Aisle Space
 - ❑ No Secondary Containment
 - ❑ Unmarked/Unlabeled/Undated Containers
 - ❑ Incompatible Storage
 - ❑ Damaged Containers

(continued)

- No or incomplete Hazardous Waste Manifests
- Inadequate Emergency Preparedness and Inadequate/Outdated Contingency Plan
- No or Inadequate Hazardous Waste Training or Documentation
- No or inadequate In-house Inspections
- Storage > 180 Days, >90 Days w/o Permit
- Full Satellite containers in place >3 days

HW Determination Violations

What we find...

- ❑ Mischaracterized or uncharacterized wastes;
- ❑ Materials that are unused and pending disposal not characterized

What we want...

- ❑ All wastes/materials characterized as soon as they are generated or when they are not going to be used

Open Containers Violations

What we find...

- ❑ Containers with no cover, no bung, or open funnel in bung

What we want...

- ❑ All containers of hazardous waste closed unless adding or removed

Unmarked/Unlabeled Container Violations

What we find...

- ❑ missing information/no information or undated

What we want...Avoid mismanagement

- ❑ Containers with labels that say the words "Hazardous Waste", a description of the waste and the date when the waste started to accumulate.

Unmarked/Unlabeled Containers (continued)

- ❑ Can cause wastes to be commingled
- ❑ No one knows what's in the container:
[person who knew is on vacation or left
the company!!!]
- ❑ Unknowns increase need for laboratory
analysis...\$\$\$\$

Satellite Accumulation Violations

What we find...

- Hazardous waste stored far from the place of generation
- Not under anyone's control
- More than 55-gallons

Satellite Accumulation Violations (continued)

Because

- ❑ Don't want people walking long distances with uncontrolled quantities of waste
- ❑ Want someone watching over these containers.
- ❑ Don't want a lot of waste in process/production/business areas.

Incompatible Waste Storage Violations

What we find...

- ❑ Incompatible materials stored next to each other, or stacked on top on one another.

Because...

- ❑ KABOOM!!!

Hazardous Waste Training Violations

- ❑ Common Issue! Poor training program will lead to poor waste management!
- ❑ Annual training conducted once then lapsed
- ❑ Training is not relevant to duties
- ❑ Documentation is not maintained
- ❑ No plan on who should be trained and on what
- ❑ Job descriptions not available or applicable [personnel have rotated or job duties have changed]

Hazardous Waste Manifest Violations

What we find...

- ❑ Completed signed copy not maintained (most important manifest document!)

What we want...

- ❑ Copies of manifests maintained for 3 yrs.

Because...

- ❑ This is the cradle to grave tracking system
- ❑ Documents arrival at designated facility.

Contingency Plan Violations

What we find...

- No contingency plan
- Information in plan is old/ out-dated
- No evacuation plan/routes
- Plan not readily available
- No responsible personnel listed or incorrect
- No copies sent to Locals
- Emergency equipment descriptions and locations are missing or outdated
- Plan does not address spills, explosions, fires, releases

Contingency Plan Violations (continued)

It should be clear to all affected employees:

- ❑ types of wastes present [staff and responders],
- ❑ what to do,
- ❑ where to go, and
- ❑ who to call.

Weekly/Daily Inspection Violations

What we find...

- ❑ No weekly/daily inspections/missed inspections
- ❑ Not all areas inspected
- ❑ Inspections/corrective actions not documented

(It's ok to document a problem and corrections)

(Regular checks ensure that management standards are met).

Storage for Greater than 90 or 180-Days

What we find...

- Forgotten drums
- Non-compliant satellites

What we want...

- Wastes regularly moved off-site in less than 90-days or 180-days.

COMMON OPERATIONS & WASTES FOUND AT MARINAS THAT COULD TRIGGER THE NEED TO CONDUCT HAZARDOUS WASTE DETERMINATIONS

[NOTE: list not comprehensive.]

equipment cleaning
spent solvent cleaner/degreasing
parts washers
evaporative losses
tanks, pipelines
spent carburetor cleaner
spent break cleaner
area cleaning water
rinse water discharges
pressure washing
boat washing
dock cleaning wastes
cleaning products
oil filters
fuel filters
petroleum products
waste oils, used oils
lubricants (organic, synthetic)
hydraulic oils
transmission fluid
gasoline
lead/acid batteries
waste paint and paint related materials
sludge/paint chips
cargo handling
stripping wastes (mechanical/abrasive, organic, inorganic)
paint over-spray/out-of-doors spray painting
electroplating wastes
fiberglass fabrication (solvents, gelcoat, dust, grindings/cutting)
paint thinner
resins/plastics
rigging manufacturing
engine repair, maintenance
carpentry operations
adhesives
bag house dust
bilge water
engine test water
used paper, tarps, rags, wipes, absorbent floor coverings, booms, berms
spray nozzle cleaning wastes
solvents (from processes other than fiberglass work)
drip pans
spray booth wastes -including filters
antifreeze
metal fabrication wastes-
welding wastes
unused/off spec materials and paints {containing metals}
Marina services (pool chemicals, laundry discharges, grease traps, pesticides, herbicides, algacides)
machine shop wastes
acid wastes
alkaline wastes
grit blasting
chemical stripping
electroplating
coolants
power plants, boilers and turbines (large military operations)
plastic media blasting
water jet stripping
thermal stripping
laser paint stripping
VOCs
Hull biofoulants