

Hazardous Waste Management for Green Lodging

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Hazardous Waste Program



Requirements for Green Lodging

- You must be in compliance with all local, state, and federal environmental regulations (hazardous waste, solid waste, industrial waste, domestic waste, etc.)
- Required to recycle bulbs, ballasts, thermostats, and batteries (regardless of any allowances)



Types of hazardous waste



- Fluorescent bulbs (Universal Waste)
- Batteries (Universal Waste)
- Electronics
- Paint/solvents
- Pool chemicals
- Floor Strippers
- Landscaping chemicals
- Construction
- Wastes from auxiliary services like:
 - Hair salon
 - Nail salon
 - Laundry
 - Fleet Maintenance

Characteristic Hazardous Waste

Ignitability – D001 (40 CFR 261.21): Flash point less than 140°F or greater than 24% alcohol; Solid which will ignite through friction, absorption of moisture, or spontaneous combustion; Ignitable compressed gas



Corrosivity – D002 (40 CFR 261.22): pH less than or equal to 2 or greater than or equal to 12.5

Reactivity – D003 (40 CFR 261.23): In contact with water shock, heat or pressure, the material may undergo a rapid or violent chemical change



TCLP CONCENTRATIONS 40 CFR 261.24 (TABLE 1)

MAXIMUM CONCENTRATION OF CONTAMINANTS
FOR TOXICITY CHARACTERISTICS

EPA HW Code	Contaminant	CAS No.	Regulatory level (mg/L)	EPA HW Code	Contaminant	CAS No.	Regulatory level (mg/L)
D004	Arsenic	7440-38-2	5.0	D032	Hexachlorobenzene	118-74-1	0.13
D005	Barium	7440-39-3	100.0	D033	Hexachlorobutadiene	87-68-3	0.5
D018	Benzene	71-43-2	0.5	D034	Hexachloroethane	67-72-1	3.0
D006	Cadmium	7440-43-9	1.0	D008	Lead	7439-92-1	5.0
D019	Carbon Tetrachloride	56-23-5	0.5	D013	Lindane	58-89-9	0.4
D020	Chlordane	57-74-9	0.03	D009	Mercury	7439-97-6	0.2
D021	Chlorobenzene	108-90-7	100.0	D014	Methoxychlor	72-43-5	10.0
D022	Chloroform	67-66-3	6.0	D035	Methyl ethyl ketone	78-93-3	200.0
D007	Chromium	7440-47-3	5.0	D036	Nitrobenzene	98-95-3	2.0
D023	o-Cresol	95-48-7	200.0	D037	Pentachlorophenol	87-86-5	100.0
D024	m-Cresol	108-39-4	200.0	D038	Pyridine	110-86-1	5.0
D025	p-Cresol	106-44-5	200.0	D010	Selenium	7782-49-2	1.0
D026	Cresol (total)		200.0	D011	Silver	7440-22-4	5.0
D016	2,4-D	94-75-7	10.0	D039	Tetrachloroethylene	127-18-4	0.7
D027	1,4-Dichlorobenzene	106-46-7	7.5	D015	Toxaphene	8001-35-2	0.5
D028	1,2-Dichloroethane	107-06-2	0.5	D040	Trichloroethylene	79-01-6	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7	D041	2,4,5-Trichlorophenol	95-95-4	400.0
D030	2,4-Dinitrotoluene	121-14-2	0.13	D042	2,4,6-Trichlorophenol	88-06-2	2.0
D012	Endrin	72-20-8	0.02	D017	2,4,5-TP (Silvex)	93-72-1	1.0
D031	Heptachlor	76-44-8	0.008	D043	Vinyl Chloride	75-01-4	0.2

Hazardous Wastes

Common Characteristic Wastes:

- Fixer waste (silver-D011)
- Spent solvents from parts washers (ignitability-D001)
- Incinerator ash (metals)
- Caustic/acid solutions (corrosivity-D002)
- Fluorescent lamps (mercury-D009)
- Blasting media wastes (metals)



Listed Hazardous Waste



- **F List – F001-F028:** Wastes from non-specific sources, i.e. spent solvents.
- **K List – K001-K172:** Wastes from specific sources i.e. sludges and distillation bottoms from wood preserving and petroleum refining.
- **P (acutely toxic) or U (toxic)List:** Pure chemical that is discarded, spilled, off specification or container residue.

Hazardous Wastes

Common Listed Wastes:

- Paint/debris related wastes (F001-F005)
- Spent solvents (F001-F005)
- Off-spec chemicals (pesticides) (P & U list)
- Rags contaminated with listed solvents (F001-F005)
- Plating sludges (F001-F005)



Where is hazardous waste generated?

- Rooms
- Facilities maintenance
- Any auxiliary services, spas, golf courses, etc



Fluorescent lamps

- Fact sheet
- Recyclers
- Storage



**GOOD STORAGE –
In closed containers,
Out of the weather,
UW label**



Bad storage

Do not tape bulbs
Boxes got wet



Bulbs broken or potentially broken



Batteries

- Types needing recycling
 - Rechargeable
 - Lead acid, any size
- RBRC
 - recycles rechargeable and sealed lead acid
 - FREE program
- Alkaline batteries – NOT hazardous waste in Florida, normal trash disposal



Electronics

- Reuse and donations
- Recycling
- Website has lists and tips:

<http://www.dep.state.fl.us/waste/categories/electronics/default.htm>



Paints/Solvents

- Oil base paints
- Stains
- Parking lot paint
- Mineral spirits
- Paint strippers
- Aerosol cans
- **NOT** usually Latex paint



BMPs:

- ✓ Store containers out of the weather
- ✓ Beware of bulging containers
- ✓ Keep containers closed
- ✓ Label all containers

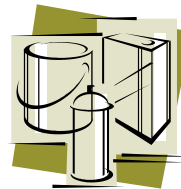
Fleet Maintenance

- Parts washer / Mineral Spirits
- Carburetor Cleaner
- Brake Cleaner
- Used Oil
- Antifreeze
- Contaminated Rags
- Batteries



Misc. Chemicals:

- Pool Chemicals
- Landscaping Chemicals
- Pesticides



Keep your waste quantities LOW by:

- Use it up (like paint & spray cans)
- Buy only what you need

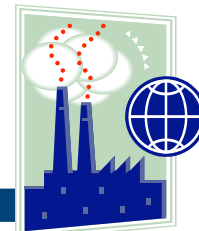
Generator Size:



- Determined by the amount of hazardous waste generated per month
- The amount of hazardous waste generated **can not** be averaged
- The amount of hazardous waste accumulated on site.



Generator Sizes per month:



- Conditionally Exempt Small Quantity Generators (CESQG) - generates approximately less than 25 gallons (220 lbs); accumulates less than 4-5 drums (2200 lbs)
- Small Quantity Generator (SQG)- generates between 220 lbs and 2200 lbs; Never exceeds the 6000 kg (13,200 lbs)/ 180 day storage time limit.
- Large Quantity Generator – over 2200 lbs and/or 2.2 lbs of p-listed waste; 90 day storage time

Waste Management for CESQGs (less than 220 pounds a month)

- Review waste generated – “waste determination”
 - “Biodegradable”
 - “Environmentally Friendly”
- Can store indefinitely or until you accumulate 2200 pounds combined weight (not including lamps and batteries)
- Ensure proper disposal
- Keep disposal receipts for 3 years
- Label ALL containers



Is it YOUR waste?



- Contractors that generate < 25 gallons of hazardous waste per month at a facility can transport that waste unless the facility is a Small Quantity Generator (SQG) or Large Quantity Generator (LQG).
- If they leave it with you, you must dispose of it properly



Contacts for more help



- County Small Quantity Generator Programs
 - call them FIRST about taking your waste. Not all counties will take business waste.
- District DEP offices
 - for local recycling and disposal options.



www.dep.state.fl.us