

Hospitals & Colleges

Will You Pass a MassDEP Compliance Inspection?



Overview

This presentation will walk you through:

- Basic requirements pertaining to hazardous waste, air quality, industrial wastewater, and solid waste regulations.
- How to prepare for a MassDEP inspection.
- Example violations and how to prevent them.



Compliance vs. Reality

- Staying in compliance with environmental regulations can be an everyday challenge.
- DEP inspectors typically find problems of similar types during every inspection.
- Rules to live by –
 - Keeping your facility in compliance is a group effort, but – make it clear who's responsible for environmental compliance.
 - Keep employee's trained and up to date with regulation changes.
 - Stress the importance of maintaining compliance – avoid penalties.

Applicable Regulations

***Hospitals & Universities are subject to the following:**

- Hazardous Waste Regulations 310 CMR 30.000**
- Air Quality 310 CMR 6.00-8.00**
- Industrial Wastewater 314 CMR 12.00 & 310 CMR 73.00 (for the most part)**
- Solid Waste 310 CMR 19.000**

**Not an all inclusive list*



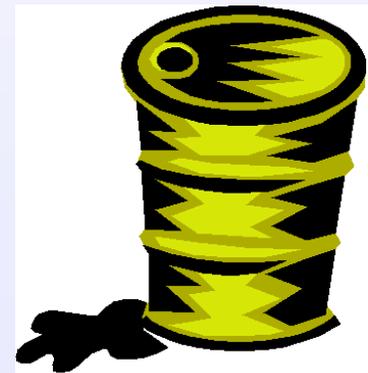
Preparedness

The following slides highlight each of the main problem areas we see during our inspections.



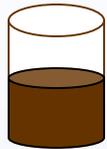
Hazardous Waste

- Generator Status – know your status
 - Very Small Quantity Generator = VSQG
 - Small Quantity Generator = SQG
 - Large Quantity Generator = LQG
- Acutely Hazardous Waste [“P-waste”] – what’s the big deal? 2.2 pounds = LQG
 - Pharmaceutical drugs, research chemicals
- Waste Determination / Paperwork
 - Analysis, generator knowledge
- Signs, Lines, Lids & Labels

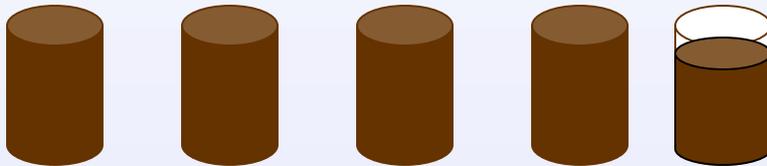


Generator Status

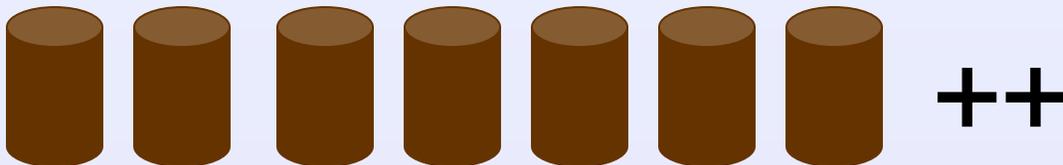
- VSQG < 27 Gallons per month (no time limit) & no P-waste



- SQG between 27-270 gallons per month (180 days) & 2.2lbs P-waste onsite



- LQG > 270 gallons per month (90 days)



Acutely Hazardous Waste

What is an empty container?

- Triple rinsed & collect the rinseate or
- Dispose of the container as hazardous waste



Some Drugs of concern in Hospitals

- Nitroglycerine- P081
 - ❖ **Future** -New regulations for medicinal nitroglycerine in finished dosages not considered a hazardous waste.
- Epinephrine -P042
- Warfarin >.3%(Coumadin)- P001

Some chemicals of concern in College's & Universities

- Sodium Azide –P105
- Cyanides (Copper, Sodium, Potassium, Zinc, Silver)



Hazardous Waste Responsibility

Cradle to Grave!

- From generation, storage, transportation & disposal you are responsible!
- Do you have an EPA ID #?
- Shipping hazardous waste -- make sure you use a hazardous waste manifest
- Employee training = proper waste classifications & SAFE employees



Responsibility



Air Quality

Boilers

- Natural Gas or fuel oil?

Generators

- Ultra low sulfur diesel on or after 7/1/07
- Stack Design?

Paperwork

- Look at permit requirements!
- Rolling twelve month calculations readily available
- Fuel receipts



Environmental Results Program (ERP)

- **Simplified permitting and compliance reporting**
- **Replaces facility-specific state permits with industry-wide environmental performance standards and periodic compliance certifications.**



ERP- Boilers

- ❑ Applicable if your facility installs a boiler rated between 10-40 million btu/hr on or after September 14, 2001.
- ❑ On or before July 1, 2009 distillate fuel and or natural gas must be .05% sulfur
 - After July 1, 2009 distillate fuel .0015% sulfur by weight
 - Before July, 1 2009 natural gas must be the **primary** fuel if available.
- ❑ Effective December 28,2007 must certify prior to install & operation.



ERP- Emergency Engines / Turbines

- ❑ On or after March 23, 2006 must certify if:
 - Installed or altered an engine with a rated output at 37kw or greater
 - Installed or altered a turbine with a rated output of less than one Megawatt.
- ❑ Cannot operate more than 300 hours during a rolling 12-month period
- ❑ On or after July 1, 2007 fuel must meet 15ppm for sulfur



ERP - Dental

- ❑ As of June 22, 2006 all dental practices and facilities that discharge from an amalgam related process must certify to the MassDEP.
 - The system must remove at least 98% of the amalgam
 - Re-certification every 5 years

- ❑ The amalgam related waste has to be recycled
- ❑ Use only non-corrosive and biodegradable cleaners



Industrial Wastewater (IWW)

IWW can result from treating a facilities WW or a simple process of glass washing in a lab. Here are some requirements to look into:

- treating the IWW may require an Operation & Maintenance Manual and Staffing Plan.
- Certified WW operators onsite
- Approval from your local authorities





Do IWW regulations apply?

- (1) produce industrial discharge?**
- (2) treat the wastewater prior to discharge?**
- (3) does the combined daily industrial and wastewater discharge volume equal or exceed 50,000 gal per day?**

Contact your regional office.

Mercury Management Act

*New requirements!!!

– As of May 2008

- Hg containing products not allowed in trash
- Sales of certain Hg measuring devices banned such as:
 - Hygrometers and psychrometers
 - Esophageal dilators
 - Sphygmomanometers
 - Basal thermometers
- More info at www.mass.gov/dep



Solid Waste - Assistance to Consider

- EPA's WasteWise program
- Reduce solid waste and
- Select non-hazardous industrial waste

- Hospitals for a Healthy Environment (H2E)
- Mercury elimination,
- Health care waste,
- Exposure to hazardous chemicals
- Running a "greener" facility.
- <http://www.h2e-online.org/>



Lemuel Shattuck Hospital

- 278 bed state hospital
- Resource Management contract
- 50/50 split on savings

Initial savings:

- > 40 yd = save \$400/month

Long term benefits:

- Cardboard, leaf and yard debris, pallets, electronics, metal, food waste added to recycling program
- Recycling diversion increased from 14 tons to 108 tons/yr
- Average annual savings - \$11,000



Compliance Success Story

- Establish clear lines of accountability at your facility
- Train employee's and make them an active part of the program
- Self-audit your facility

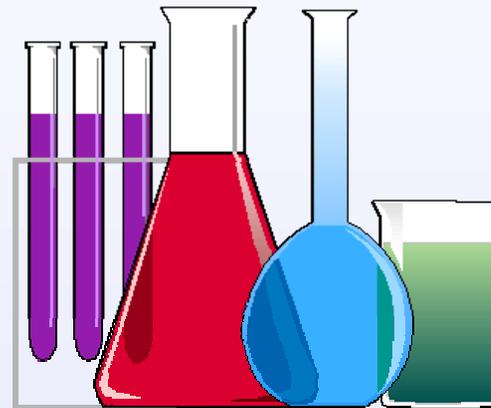


A Good Quick Check? – Review Your Facility's History & Ask for Compliance Assistance

- Don't be afraid to ask questions or call for help.
- Call your regional MassDEP office.



MassDEP Inspection



MassDEP Inspection

- Most inspections are unannounced
- Inspections may require personnel from:
 - Safety / Security
 - EH&S
 - Facilities
 - Lab Personnel
 - Pharmacy
 - Department Heads
 - Housekeeping



Inspection Process

- Opening Conference
 - Purpose & general facility info
- Site walk through
 - Complete tour
- Paperwork Review
- Closing Conference
 - Findings
 - What's next?



Paperwork Review

Air	Haz Waste	IWW
Generator logs (hrs of operation)	Contingency Plan	Staffing Plan
Fuel receipts	Inspection Records	O&M Manual
Maintenance records	Manifests / Bill of Lading / Land Bans	Compliance w/dental ERP
Emission records (monthly & <u>rolling 12</u>)	Profiles / Biennial Report	
Testing records – <i>refer to approval, some require yearly testing</i>	Training Records & Plan	
New Generator / Boiler ERP Certs	Recycling permits-records	



Common Compliance Issues

	Healthcare	Higher Education
Haz Waste labeling – formulas, trade names	√	√
Improper Disposal – Pharmacy & sink	√	
Universal Waste – storage & labeling	√	√
Stack Design	√	√
Plan Approvals (Air)	√	√
Manifest – mailing requirements, wrong EPA ID#, untrained personnel signing a manifest	√	√



Common Healthcare Violations

□ 15 Hospitals Inspected from 1/06-9/07

- 10 received penalties \$\$\$, only 2 were in compliance

Number of facilities cited for:

Labeling/marketing of HW containers	11
Improper pharmaceutical disposal	8
Air quality recordkeeping	8
Improper waste determination	6
HW manifests not available	5
Stack design, HW containment, inspect logs, Hg lamps	4

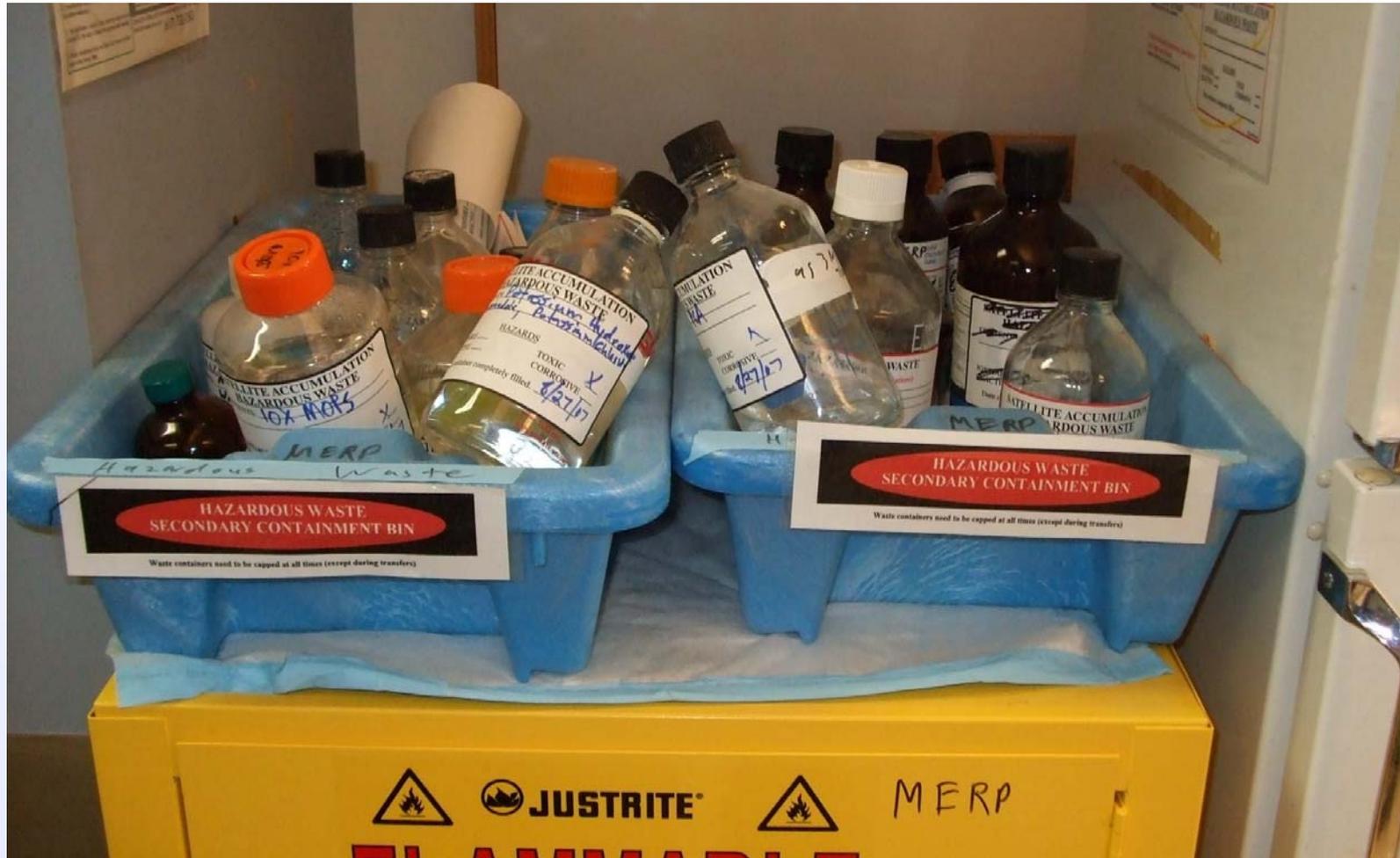
□ Total penalty exposure → \$67K air quality; \$200K hazardous waste



Compliance Exercise



SAA Labeling & Storage



Proper SAA Storage



Stack Design



Stack Design



CAT 3508
B. 149
Co-Gen unit in background

Generator Stack



Hazardous Waste Storage



Storage 2



Hazardous Waste Labeling



Waste Oil



Follow Through

- Take notes during the walk through!!
- If your facility gets an enforcement document, meet deadlines and respond to it in writing.
- Be sure to correct all violations listed in the enforcement document
- MassDEP personnel will be back to confirm compliance



Thank You!
<http://www.mass.gov/dep/>

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