

# **Environmental Compliance Today**

**An Overview of MassDEP Regulations  
and Compliance in the  
Bureau of Air and Waste**

**April 24, 2015**

**Eco-Efficiency Center, Devens**

# Agenda

- Regulations and requirements
  - *focus on air pollution control, hazardous waste, industrial wastewater, solid waste, toxics use reduction*
- Common Violations
- Enforcement
- Resources

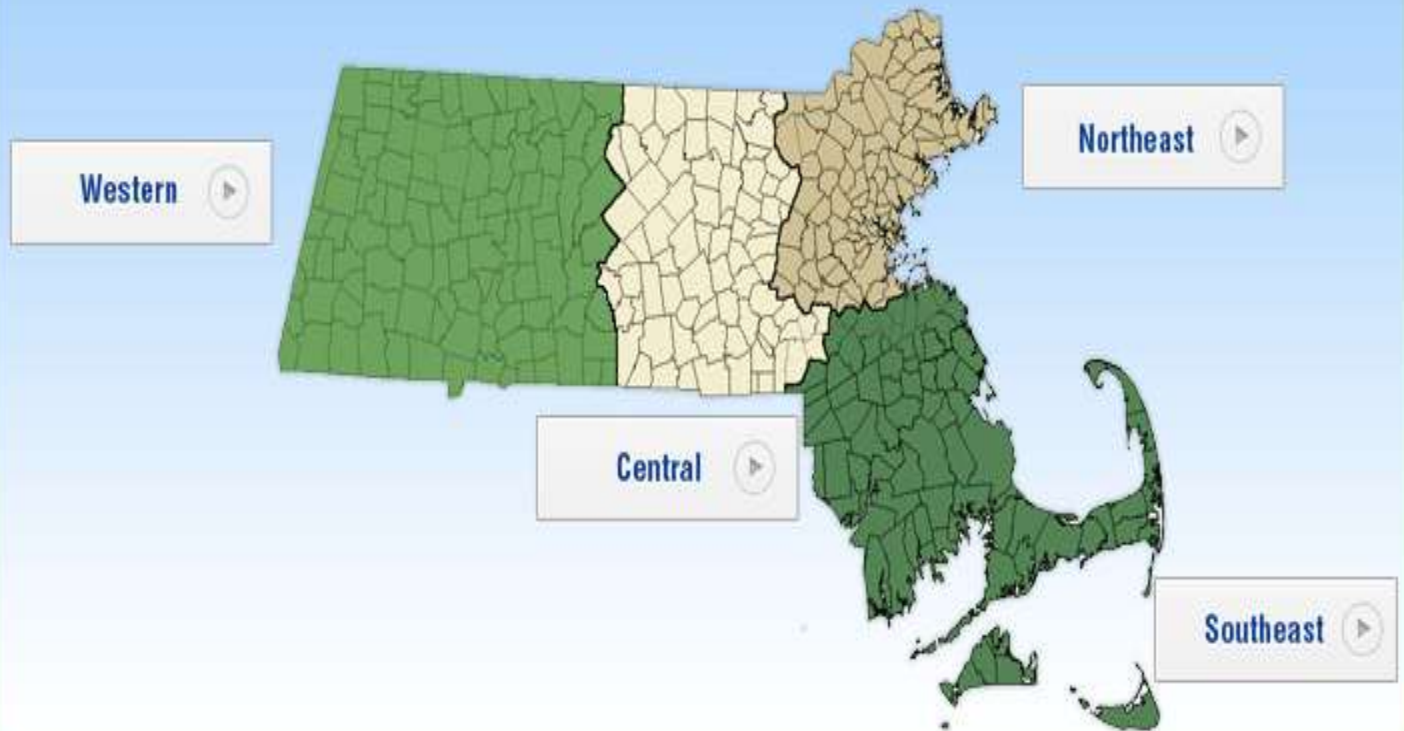
# DEP Central Region

77 Towns

Population  
Served:

900,000

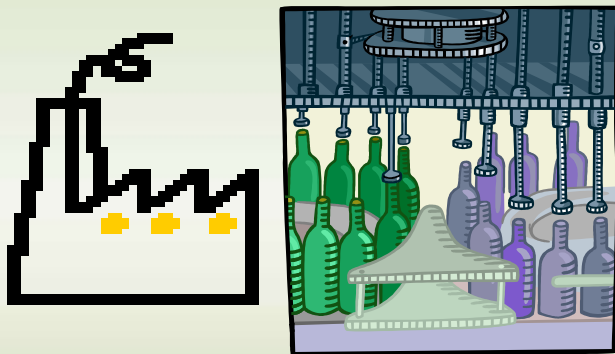
Find Your MassDEP Region or Office - Click the map or see list of towns below



# DEP BUREAUS

Central Regional Office

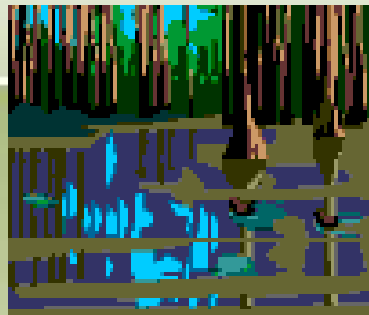
Air and Waste



Waste Site Cleanup



Water Resources



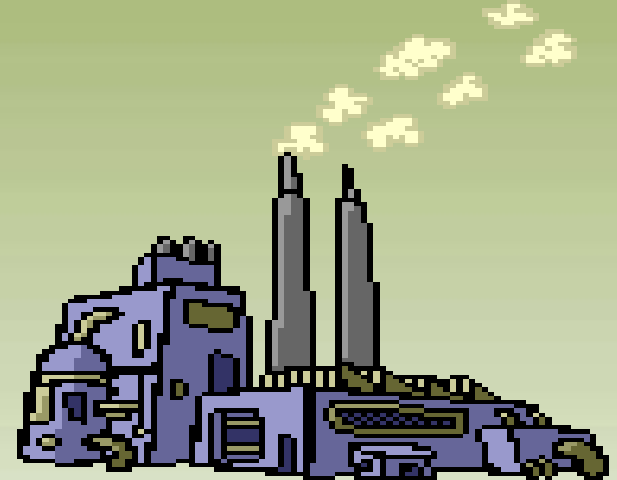
# What Regulations May Apply to You?

- air pollution control – *310 CMR 7.00*
- hazardous waste – *310 CMR 30.000*
- industrial wastewater –  
*314 CMR 3.00/5.00/7.00/18.00*
- toxics use reduction – *310 CMR 50.00*
- solid waste – *310 CMR 16.00/19.00*
- env'l results program – *310 CMR 70.00*
  - *printers, dry cleaners, photo processors*

# Other Regulations that May Apply

- wetlands – *310 CMR 10, 12, 13 and 23.00*
- title 5 (septic systems) – *310 CMR 15.00*
- drinking water supply – *310 CMR 22.00*
  - incl. u-ground injection cont'l – *310 CMR 27.00*
- underground storage tanks – *310 CMR 80.00*
- waste site clean-up – *310 CMR 40.00*
  - *spill reporting ; development of contaminated sites*

# Air Pollution Control



- Permitting – *310 CMR 7.02*
  - process emissions > 1 ton
  - fuel combustion > 10mmBTU gas or #2 oil
- “Permits by Rule” exemptions – *310 CMR 7.03*
  - paint spray booths
  - temporary boilers
  - emergency engines 3-8mmBTU/hr input installed before 2006, *and other emission units*
- Certifications
  - emergency engines and turbines > 37 kW engines installed after 2006

# Air Pollution Control

## Source Registration/Emission Statement

### ➤ Schedule

- annually – Operating Permit (Major) Source; Restricted Emissions Status source; 25tpy NO<sub>x</sub> or VOC source; permit requirement; NSHP
- triennially (all others)

The screenshot shows the 'Source Registration Overview' page from the Massachusetts Department of Environmental Protection. The page is titled 'Source Registration Overview' and 'Create or Amend a Source Registration Forms Package'. It includes a sidebar with navigation links: 'Click here for important notices', 'AP-OR-001', and 'Have you updated your units?'. The main content area is divided into two sections: 'A. Create a Source Registration Package' and 'B. Amend a Source Registration'. Section A includes steps for selecting existing or new facilities, validating the form, and a date received field. Section B includes steps for selecting forms to amend and a facility name field. The page also features a '2012 Year of Record' dropdown and a 'Facility AQ Identifier' field.

Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention – Air Quality  
**Source Registration Overview**  
Create or Amend a Source Registration Forms Package

2012  
Year of Record

Facility AQ Identifier

**A. Create a Source Registration Package**

1. Select existing or new facility:

☐ Existing Facilities: To create a complete package for 2012 check box.

☐ New Facilities – check if you have never before submitted a Source Registration

☐ check if you added emission units or stacks since your last report.

2. Validate this form:

Date Received (DEP use only – mm/dd/yyyy)

**B. Amend a Source Registration**

1. If you need to correct or add to a previously submitted Source Registration for 2012 check the boxes in the list below to select the forms/units you wish to work on. Check here to add new units: ☐

2. Validate this form:

Facility Name:

Our records indicate that this facility has: 5 Emission Units (points) and 4 Physical Stacks

☒ AP-OR Source Registration Form (general facility and contact information) – REQUIRED



# Air Pollution Control

## Source Registration/Emission Statement

### ➤ Thresholds - 310 CMR 12.00

- particulate matter – 2 tons/yr
- SO<sub>2</sub> – 2.5 tons/yr
- organics (VOC's) - 10 tons/yr
- NO<sub>2</sub> – 4.4 tons/yr
- lead – 5 tons/yr
- HAP's – 10/25 tons/yr
- Fuel utilization facility > 10 mmBTU/hr input

Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention - Air Quality  
**BWP AQ AP-1**  
Emission Unit - Fuel Utilization Equipment  
B. Fuels and Emissions

1. Fuel Name / Characteristics  
Name of fuel for this and previous reports:

☐ Add a NEW fuel: Check the box if you need to add a fuel that you did not report on previously. eDEP will add a blank Sect. B form to your package.  
When to add: Check the box.

☐ Delete this fuel: Check box if you stopped using this fuel in this and subsequent years. You must still report for this year of record even if amount is "0". The fuel will be removed from the list in the next report cycle.

2. Source Classification Code (SCC)  
(see instructions)

3. Type of fuel - check one:  
☐ no. 2 ☐ no. 4 ☐ no. 6  
☐ diesel ☐ coal ☒ natural gas  
☐ pet. fuel ☐ other - describe:

4. Sulfur content for oil and coal (D-2.2)

16200403  
SCC Code (oil DEP SCCs will not maintain)  
NAT GAS-BOILER <10MMBTUHR  
SCC Code Description - fuel by eDEP

Describe "other" fuel:   
Percent by weight:

# Hazardous Waste

- Generator Registration Form
- Notification of On-Site Recycling
  - *e.g. waste oil space heater; solvent still*
- Class A Recycling Permit for Sending Off Site or Receiving On Site
- Class B3 Off/Specification Used Oil fuel
- B4 Permit Silver Recycling
- Class C all others
  - *e.g. lamp recycling*

# Hazardous Waste *generator registration forms*

**Massachusetts Department of Environmental Protection**  
Bureau of Waste Prevention – Hazardous Waste

For Mass DEP Use:  
FMR#

## Generator Registration

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

MassDEP Region: ☐ NE ☐ SE ☐ CE ☐ WE

Facility generation level (can be generator of both hazardous waste and waste oil)

☐ Very Small Quantity Generator of hazardous waste (less than 220 pounds or 27 gallons/month)

☐ Very Small Quantity Generator of waste oil (less than 220 pounds or 27 gallons/month)

☐ Small Quantity Generator of waste oil (220 to 2,200 pounds or 27 to 270 gallons/month)

Company Name \_\_\_\_\_

Street Address Where Waste is Generated \_\_\_\_\_

City/Town \_\_\_\_\_ State \_\_\_\_\_ ZIP Code \_\_\_\_\_

Email Address \_\_\_\_\_

Mailing Address \_\_\_\_\_

City/Town \_\_\_\_\_ State \_\_\_\_\_ ZIP Code \_\_\_\_\_

Type of Business \_\_\_\_\_ NAICS Code \_\_\_\_\_

**Note:** Your ID will be MV, followed by your Area Code and Telephone Number.

Hazardous Waste Generated (check all applicable)	Gallons per Month Prior to Treatment, Recycling or Disposal	Name of Company and Address Where Waste is Taken, or Type of Treatment/Recycling on Site of Generation
<input type="checkbox"/> Waste Oil	_____	_____
<input type="checkbox"/> Solvent	_____	_____
<input type="checkbox"/> Acid or Alkali	_____	_____
Other (Name): _____	_____	_____
<input type="checkbox"/> _____	_____	_____
<input type="checkbox"/> _____	_____	_____

I CERTIFY THAT UNDER PENALTY OF LAW I have personally examined and am familiar with the information submitted in this document and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

Name of Operator \_\_\_\_\_ Signature \_\_\_\_\_ Date (MM/DD/YYYY) \_\_\_\_\_

Title of Operator \_\_\_\_\_

Return the signed original to the appropriate MassDEP Regional Office, Attn: BWP

genreg-3/2016 Generator Registration (Page 1 of 3)

**Massachusetts Department of Environmental Protection**  
Bureau of Waste Prevention – Hazardous Materials

## Notification of Hazardous Waste Activity in Massachusetts

Massachusetts Equivalent of Subtitle C Site Identification Form

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

### A. Reason for Submittal

Check either 1, 2, or 3.

- ☐ To provide **new** notification of hazardous waste activity at a specific location in Massachusetts:
  - ☐ Initial notification
  - ☐ Change in business ownership (represent the new owner)
- ☐ To provide revised/subsequent site identification information
- ☐ To **inactivate your status** on an EPA ID number. Please check one:
  - ☐ Discontinuing all hazardous waste activities at this site
  - ☐ Physically moving from the site
  - ☐ Change in business ownership (represent the old owner)

### B. Site Information

- Notifying company's current EPA ID # at the site, if available: \_\_\_\_\_ EPA ID Number
- Site name and location information:
  - Site Name \_\_\_\_\_
  - Street Address Line 1 \_\_\_\_\_
  - Street Address Line 2 \_\_\_\_\_
  - City/Town \_\_\_\_\_ State \_\_\_\_\_ ZIP Code \_\_\_\_\_
  - County \_\_\_\_\_
  - Site land type – check one: ☐ Private ☐ Federal ☐ State ☐ County ☐ District  
☐ Municipal ☐ Tribal ☐ Other: \_\_\_\_\_ Other Site Land Type \_\_\_\_\_
- NAICS code(s) for the site – provide at least one (from <http://www.census.gov/ipeds/www/naics.html>):  
 a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_ d. \_\_\_\_\_
- Site mailing address: ☐ same as site address
  - Mailing Address Line 1 \_\_\_\_\_
  - Mailing Address Line 2 \_\_\_\_\_
  - City/Town \_\_\_\_\_ State \_\_\_\_\_ ZIP Code \_\_\_\_\_
  - Country \_\_\_\_\_

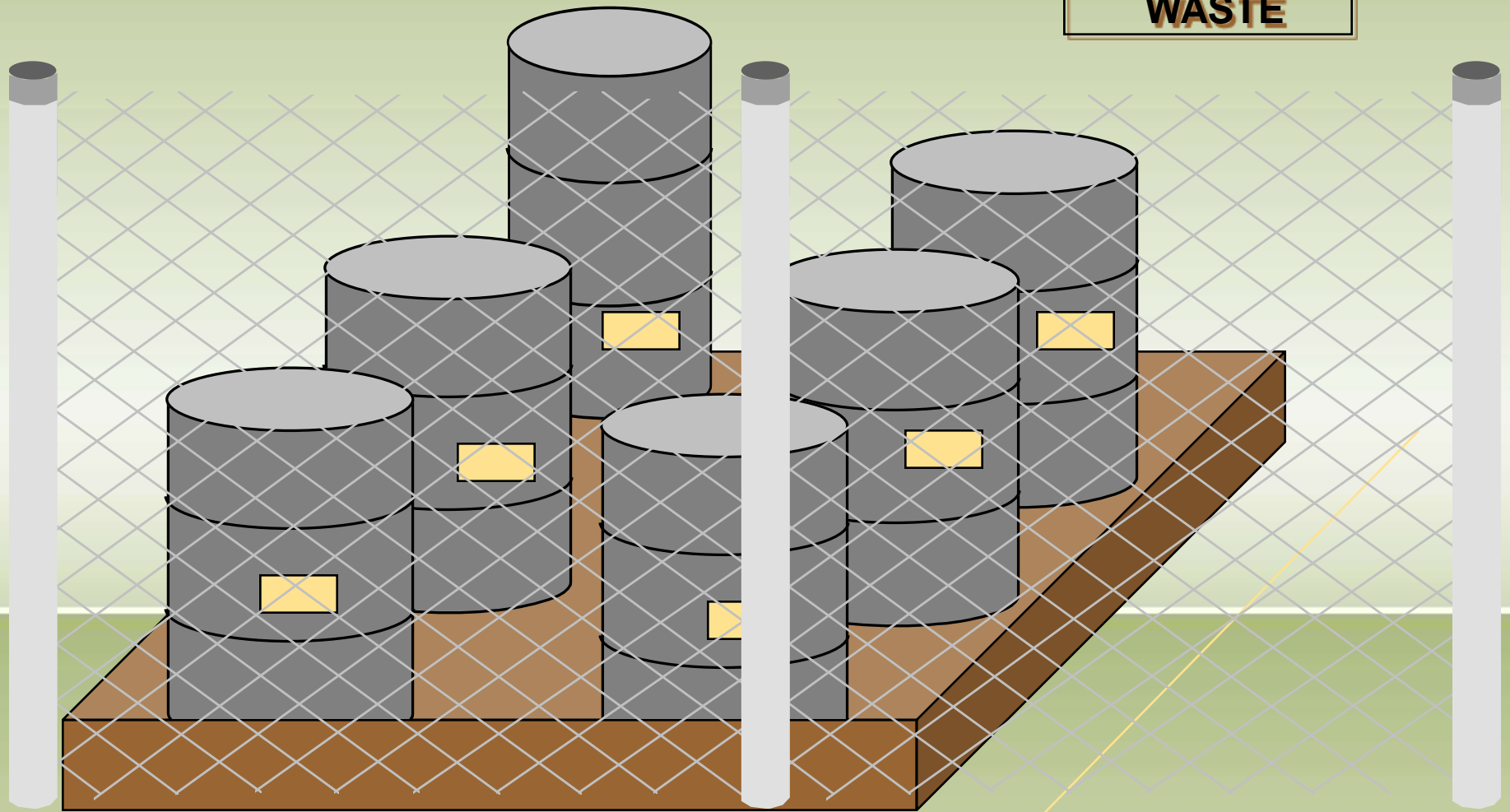
hazardwtrm-3/04 Notification of Hazardous Waste Activity in Massachusetts (Page 1 of 6)

# Hazardous Waste Generator Status

- LQG         $\geq 1000$  kg/month (265 gallons)  
90 day storage
- SQG         $100 < 1000$  kg/month (27- $< 265$  gallons)  
 $\leq 6000$  kg on site, 180 day storage
- VSQG       $< 100$  kg/month ( $< 27$  gallons)  
 $\leq 1000$  kg on site, no time limit

# Accumulation Area

**HAZARDOUS  
WASTE**



# Solvent Recycling Units





# Satellite Containers

- Must be at or near the point of generation  
(not next room )
- One container (55 gallon max.) at any one time
- Date the label when the container is full
- Within 3 days, move container to accumulation area

# Hazardous Waste





# Universal Waste

- Mercury containing lamps, thermostats, devices
- Batteries
- Recalled Pesticides

must be hazardous wastes first, ie: are characteristic (I, C, R, T) or are listed waste

*One year storage limit unless can demonstrate need!*

# Industrial Wastewater: What is It?

*‘Industrial Wastewater - waste in liquid form resulting from any process of industry, trade, or business, regardless of volume or pollutant content. Waste in liquid form consisting of only sewage is not considered industrial wastewater.’*

## Can be from process:

- Wash/rinse waters (must be < HW levels)
- Cooling water (contact and non-contact)

## Or not:

- Boiler blow-down
- Vehicle wash water

# Industrial Wastewater: Where does it go?

- The ground surface?
- Surface water?
- Sanitary sewer (POTW)?
- Holding tank?
- Dry well?
- Septic system?



# Solid Waste Management



# Solid Waste

- Waste ban items (310 CMR 19.017)
  - Asphalt Pavement, Brick & Concrete
  - Cathode Ray Tubes
  - Clean Gypsum Wallboard
  - Commercial Food Waste (Effective October 1, 2014 - 1 ton/week )
  - Ferrous & Non-Ferrous Metals
  - Glass & Metal Containers
  - Lead Acid Batteries
  - Leaves & Yard Waste

# Solid Waste

- Waste ban items continued
  - Recyclable Paper, Cardboard & Paperboard
  - Single Resin Narrow-Necked Plastics
  - Treated & Untreated Wood & Wood Waste  
(Banned from Landfills Only)
  - White Goods (Large Appliances)
  - Whole Tires (Banned from Landfills Only;  
Shredded Tires Acceptable)



# Toxics Use Reduction Act

Large-quantity users of toxic chemicals must:

- Report and pay fee annually for each chemical
- Complete a TURA plan biannually:
  - Examine toxics usage and wastes
  - Conserve energy or water or materials

# Who is Subject to TURA?

- 10 or more full time employee equivalents
- Activities with SIC Codes 10-14, 20-39, 40, 44-51, 72, 73 and 76 and
- Manufacture or Process 25,000 lbs or more or Other-wise use 10,000 lbs or more of a toxic (listed by CAS # and name)



# TURA

- Lower Reporting Thresholds
  - Persistent Bioaccumulative Toxins (PBT's)  
10 or 100 lbs or more of PBT's (Pb included)
  - Higher hazard substances -
    - 1,000 lbs/yr     *cadmium, cadmium compounds*
    - hexavalent chrome*
    - formaldehyde*
    - trichloro- and tetrachloroethylene*
    - methylene chloride*
    - (nPB, HF, Cn cmpds, DMF used in 2015)*

# TURA

## ➤ Lower Hazard Substances -

The Lower Hazard Substance designation eliminates the per chemical fee. Reporting and planning requirements for these chemicals are unchanged.

- Butyl acetate
- Isobutyl acetate
- Ferric chloride
- Ferric sulfate
- Ferrous chloride
- Ferrous sulfate
- Ferrous sulfate
- Isobutyl alcohol
- Sec-butyl alcohol
- n-butyl alcohol

# Regulatory Updates

- Industrial Wastewater – *314 CMR 7.00 and 12.00*
  - Sewer connection permitting now > 25k gpd to NONIPP POTW
  - No operator license for pH neutralization <100 gpd *257 CMR 2.00*
- Asbestos – *310 CMR 7.15*
  - Pre-demo survey, post abatement visual survey, work practices standards, new permit for nontraditional work

# Common Air Pollution Violations— Outside

- Visible emissions from stack or vents
  - Black smoke:  $< 20\%$   $< 6$  min, no time 40%
  - Other:  $< 20\%$   $< 2$  min, no time 40%
- Dust from parking lot, haul roads etc.
- Odor complaints verified

# Air Pollution Control



# Common Air Pollution Violations

## – Shop Floor...

Open containers of organic compounds -

- Dip tanks, degreasers, coating containers

Control equipment -

- Not operating as approved (low Ox<sup>0</sup> F)
- Poor condition (rusting, unstable etc.)
- Removed or replaced
- Spray booths not meeting standards

# Common Air Pollution Violations

## - Administrative

- Do not have an Air Plan Approval
- Not keeping RECORDS for the Approval
- Not complying with monitoring requirements
- Have not returned Source Registration/  
Emission Statement

# Don't Cause A Nuisance Condition

- Dust
- Smoke
- Odor
- Noise





# Common Hazardous Waste Violations – Administrative

- Not registered/not properly registered –
  - *Acting out of Status!*
- Waste is not characterized –
  - *lab analysis or process knowledge*
- Not using correct ID on manifest
- Not keeping manifest copies
- Weekly inspections not recorded

# Common Hazardous Waste Violations – Shop Floor

- Containers and tanks not labeled
- Containers left open
- Accumulation area not posted/marked
- No 2<sup>0</sup> containment outdoors
- Accumulation area not secure

# Hazardous Waste

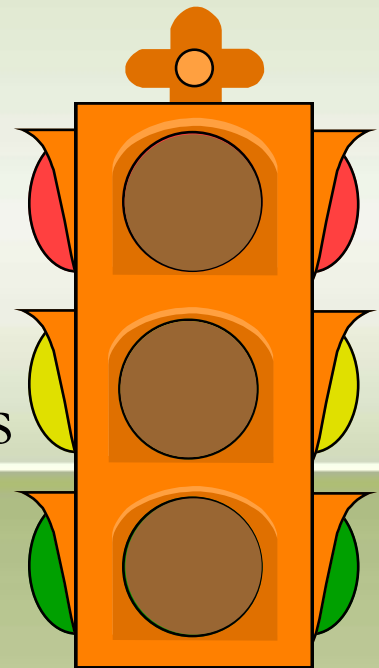


# Common Industrial Wastewater Violations

- Discharging without permit to the ground, septic system, surface water or sewer without permit
  - *e.g. noncontact cooling water general permit*
- No certification for holding tank
- Unlicensed operator for waste water pretreatment system
- No operations and maintenance manual
- Failing to report – Discharge monitoring reports

# Common TURA Violations

- Failure to file for all chemicals
  - Failure to file for chemicals used in the wastewater treatment plant
- TURA Plan deficiencies
  - Missing process flow diagram
  - Not planning for all toxics
  - Incomplete TURA Plan summaries



# Enforcement Response Guidance (ERG) 2008

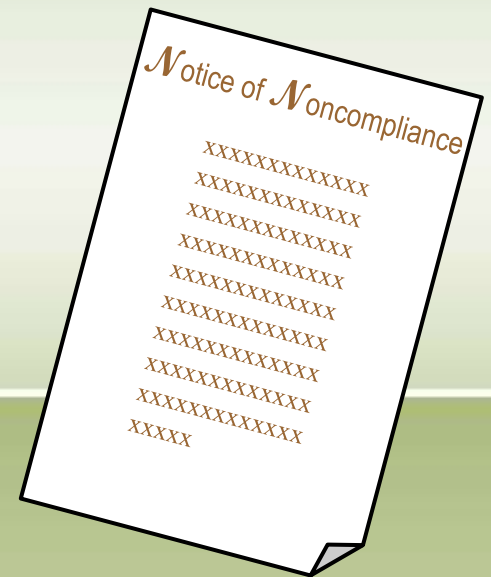
- <http://www.mass.gov/eea/docs/dep/service/enf97001.doc>
- Review cases consistently: RERC
- Set appropriate level of enforcement
- Calculate penalties
- Settle cases
- Use enforcement discretion

# Notice of Noncompliance

Cover letter & inspection report

Notice of Non-Compliance

- Requirements violated
- Violation date
- Compliance schedule



# Higher Level Enforcement (HLE)

- Administrative Consent Order with Penalty  
*can include penalty mitigating Supplemental Environmental Project!*
- Penalty Assessment Notice
- Unilateral Administrative Order
- AG or EPA Referral

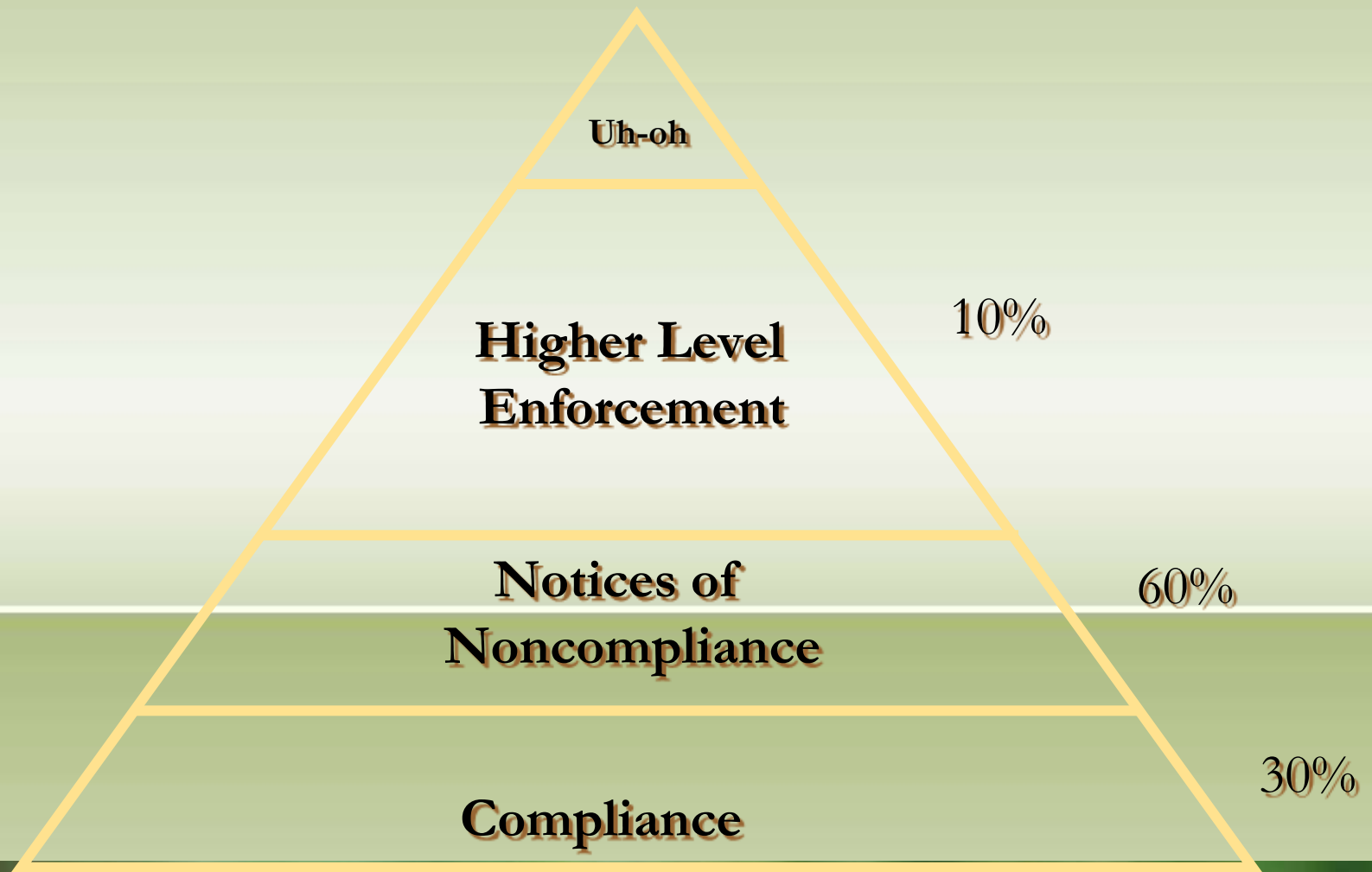


# Enforcement Conference

## Notice of Enforcement Conference

- Date and time of meeting
- Details violations
- Must Respond
- Case facts discussed
- New information is encouraged
- Discuss compliance items
- Determine schedule for compliance
- Negotiate amount of penalty

# Enforcement Overview



# Incentives For Self-Policing: Environmental Self Audit Policy

If found during routine self-auditing (i.e. EMS)

- No Notice of Non-Compliance (NON)
  - Eliminates potential for daily penalties
- No punitive penalty

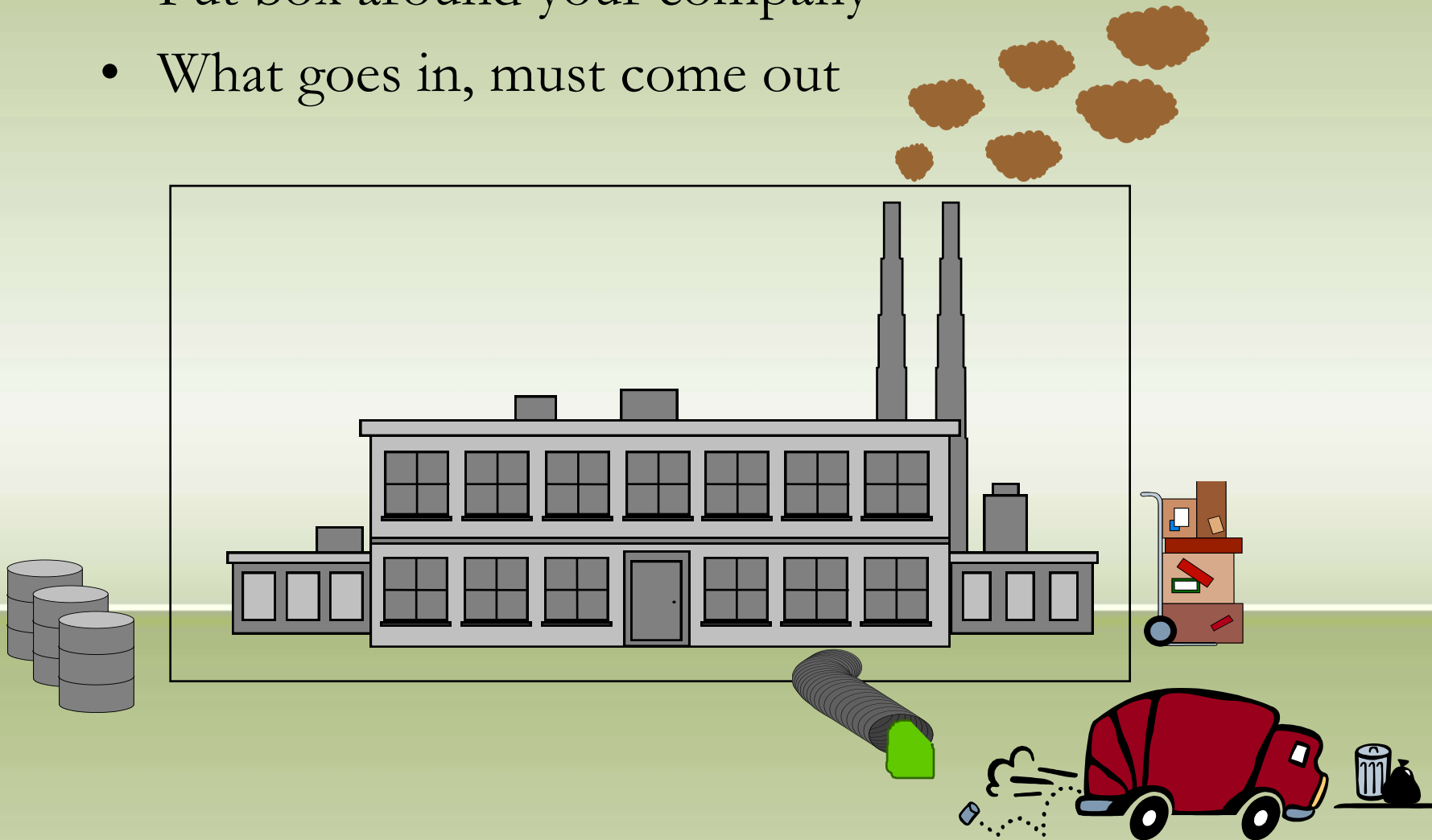
If found in non-systematic, one-time audit

- 75% off punitive penalty

Must recover economic benefit of non-compliance

# Overview of Facility

- Put box around your company
- What goes in, must come out



# Does this look familiar?



# Remember

- Know your facility's waste streams
- Determine which regulations apply:  
HW, AQ, IWW, and TURA, et.al.
- Know your permits; have them on site
- Maintain records
- Practice good housekeeping



# Other Resources

**Index of Selected Environmental Regulations  
for Manufacturing Facilities**

**A Guide for Massachusetts Businesses by  
Massachusetts Businesses** *(February 2008)*

<http://www.mass.gov/eea/docs/dep/service/permitmatrix.pdf>



## Other Resources *continued*

- The Office of Technical Assistance and Technology (OTA)  
100 Cambridge Street, Suite 900  
Boston, Massachusetts 02114
- Phone: (617) 626-1060  
Fax: (617) 626-1095  
Email: [maota@state.ma.us](mailto:maota@state.ma.us)

# Other Resources *continued*

- TURI at UMass Lowell  
600 Suffolk Street  
Wannalancit Mills  
Lowell, MA 01854
- Phone Number: 978-934-3275  
Fax Number: 978-934-3050  
emailto: Jason Marshall [Jason@turi.org](mailto:Jason@turi.org)

# Other Resources *continued*

The screenshot shows the homepage of the Chemical Footprint Project (CFP). At the top, the CFP logo is on the left, and a navigation menu with links like 'LEARN', 'VALUE', 'ASSESS', 'GET INVOLVED', 'RESOURCES', 'NEWS & EVENTS', and 'ABOUT US' is on the right. Below the navigation is a large banner with the text 'Idea: Together let's reduce our use of chemicals of high concern' and a graphic of interlocking gears labeled 'MEASURE', 'IMPROVE', 'SHARE', and 'ADVANCE'. To the right of the gears is the text 'Together, we can do this.' and the CFP logo. Below the banner is a section titled 'Treading lightly with chemicals' with a sub-headline 'A new tool, the Chemical Footprint Project (CFP), aims to establish meaningful measurement of overall corporate performance towards safer chemicals...' and a 'READ MORE' button. Below this are four columns: 'Learn' (with a globe icon), 'Value' (with a bar chart icon), 'Assess' (with a test tube icon), and 'Press Release' (with a document icon). Each column has a brief description and a 'Read more' link. At the bottom is a blue footer section with the text 'On how we're finding a better way' and a paragraph about the CFP's mission.

cfp the chemical footprint project

LEARN + VALUE + ASSESS + GET INVOLVED + RESOURCES + NEWS & EVENTS + ABOUT US +

**Idea:**  
Together let's reduce our use of chemicals of high concern

MEASURE IMPROVE SHARE ADVANCE

Together, we can do this.

cfp the chemical footprint project

**Treading lightly with chemicals**  
A new tool, the Chemical Footprint Project (CFP), aims to establish meaningful measurement of overall corporate performance towards safer chemicals...

[READ MORE](#)

**Learn**  
Imagine a clear common metric for measuring corporate chemical footprints.  
[Frequently Asked Questions](#)

**Value**  
CFP fills a critical missing gap in sustainability data.  
[Making the business case](#)

**Assess**  
You can't manage what you don't measure.  
[The CFP tool](#)

**Press Release**  
Third party benchmark tool launched at BizhiGO 2014.  
[Read more](#)

**On how we're finding a better way**  
Companies need to know the chemicals in their products and supply chains, and be able to benchmark their performance. CFP offers a new and welcomed option for companies to make progress in these efforts.

<http://www.chemicalfootprint.org/>

*Thank you!*

*Giles T. Steele-Perkins  
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