

US EPA ARCHIVE DOCUMENT

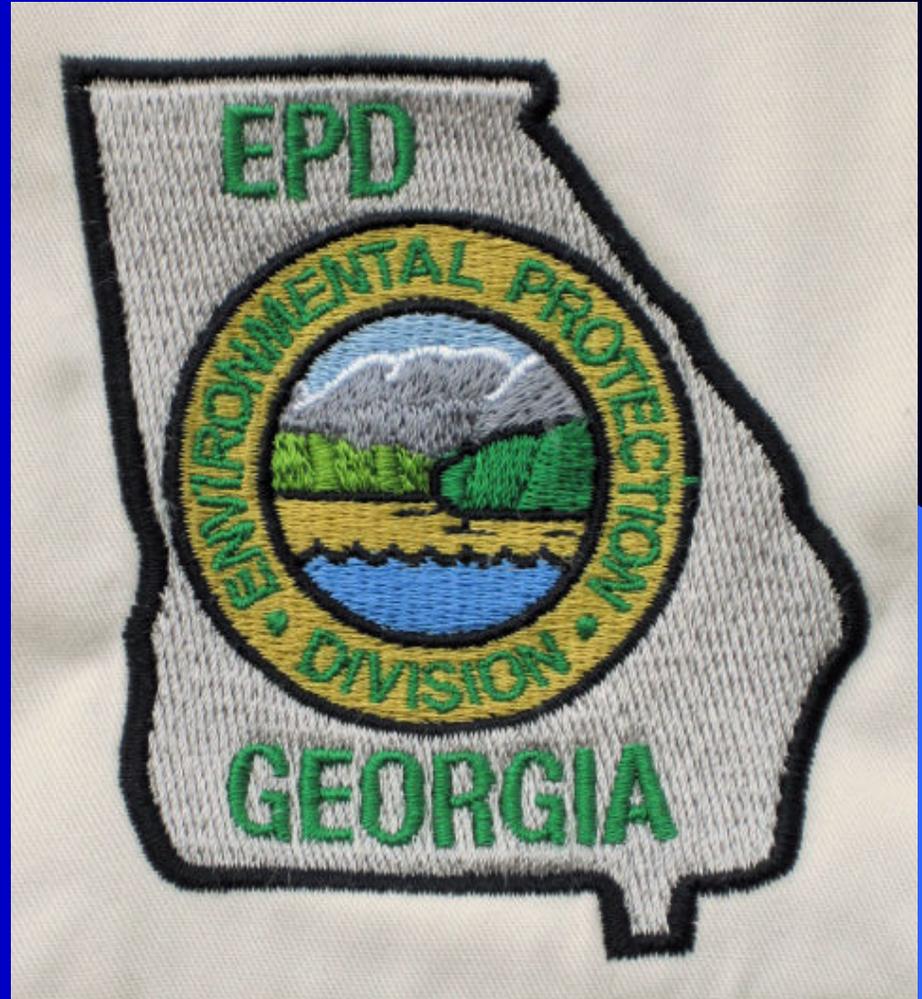
Hazardous Waste 101 for Corrections Managers

**or, What do I Need
to Worry About
NOW?**

Billy Hendricks

Hazardous Waste
Management
Branch

Generator
Compliance
Program



My high-powered law enforcement background . . .



Congress gives
power to U. S.
EPA

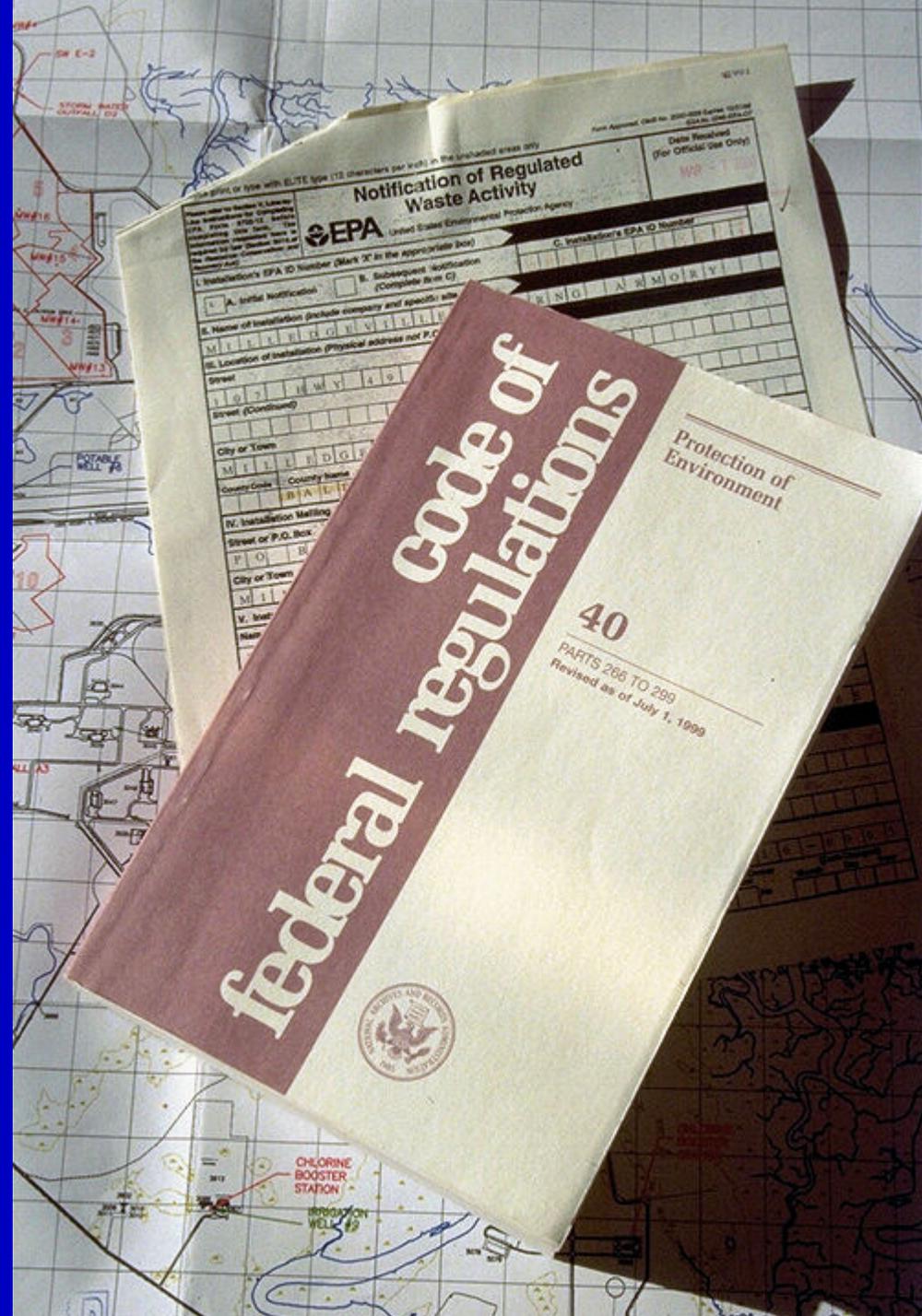
Federal government
authorizes the
state to enforce the
law



Legislature
gives us the
tools to
protect the
environment



Federal Rules are
the basis for
State Rules



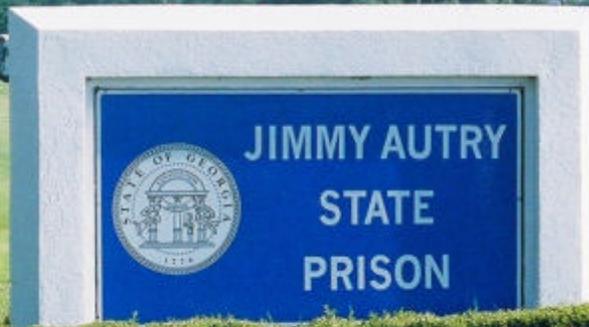
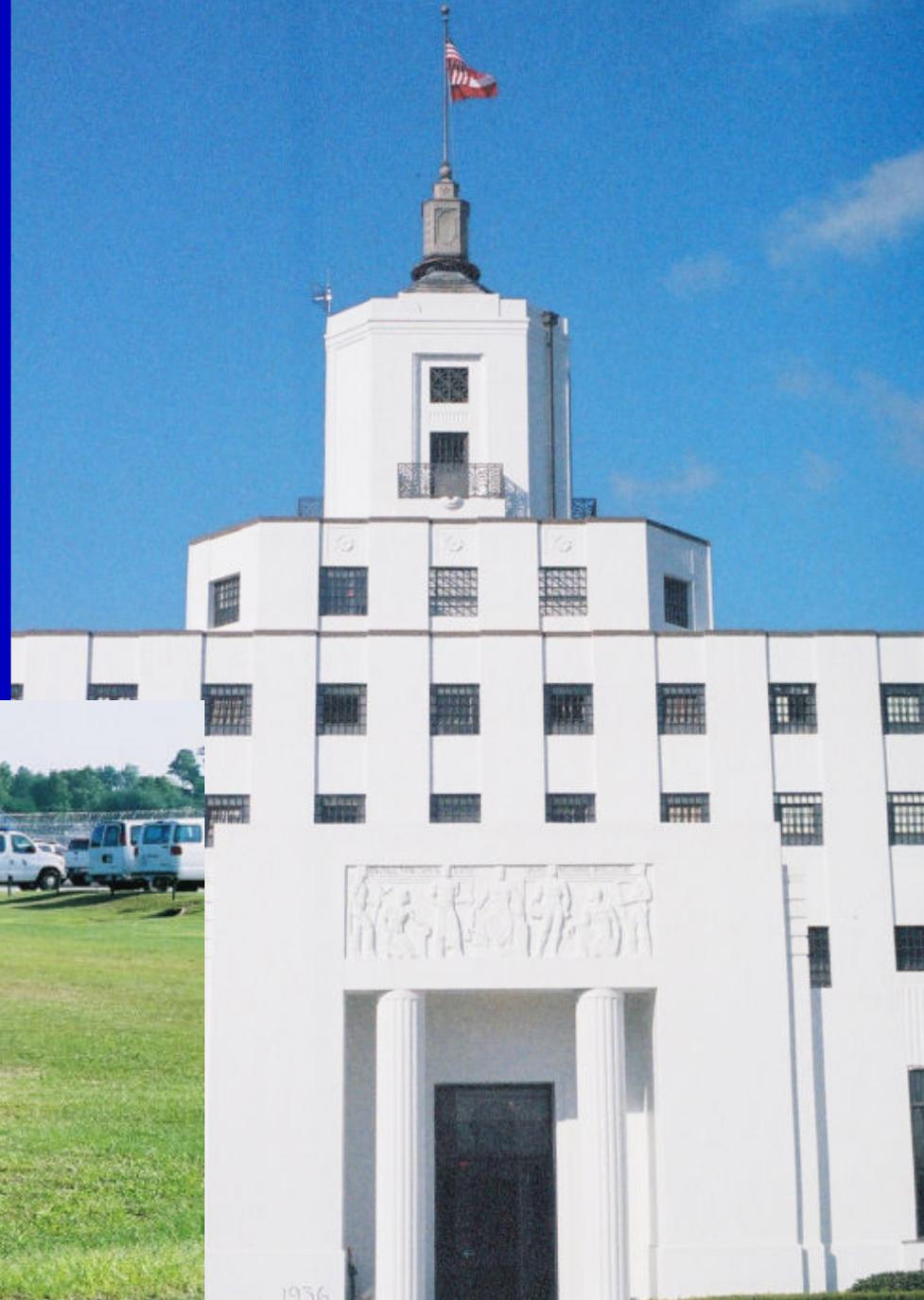
Some
hazardous
waste sites
are
obvious



Some hazardous waste sites are not so obvious

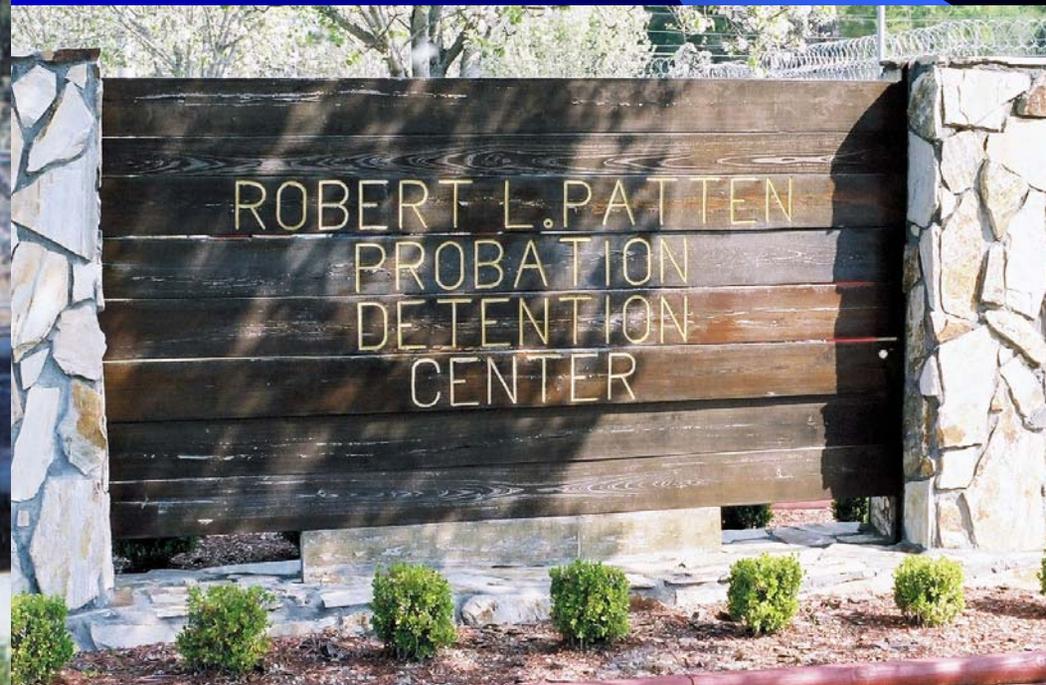
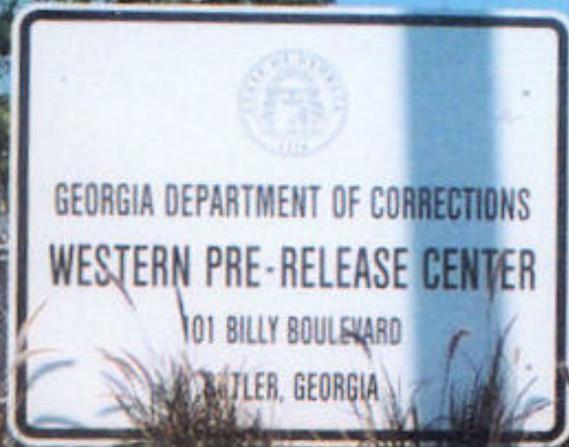
- Dry Cleaners
- Wal-Mart
- Government Facilities

BIG...



1936

...And Small



Top Problems:

- Hazardous Waste (excess chemicals)
- Used Oil
- Firing Ranges
- Laydown Yards

EPA describes several ways something becomes a waste:

- Discarded
- Inherently waste-like (leachate)
- Use constituting disposal
- *Speculative accumulation*
- 40 CFR Part 261 (www.access.gpo.gov)

Speculative
accumulation:
pack rats







Helpful Tip #1: How do you tell whether it's waste?

- Is it in good condition and labeled?
- Is it currently legal for use in the U.S.?
- Has anyone used it in the last year or two? Be honest.
- Will anyone use it in the next year or two? Be brutally honest.

Helpful Tip #2: How old is that bottle?

- Plastic Screw Caps: 1912
- ZIP codes: 1963
- CAS numbers: 1966

You DO date your stock, don't you?

EPA describes four hazardous characteristics:

- Ignitable (solvents, gasoline)
- Corrosive (acids, caustics)
- Reactive (cyanides, sulfides)
- Toxic (chromium, lead, pesticides)
- 40 CFR Part 261 (www.access.gpo.gov)

Characteristics:

Ignitability: Flash Point $<140^{\circ}\text{F}$ (60C):
gasoline, kerosene (but not diesel fuel);
ether, acetone, oxidizers (HTH)

Corrosivity: $\text{pH} \leq 2$ or ≥ 12.5 , 10% solution

Reactivity: water-reactive, pyrophoric,
generates sulfides or cyanides, shock-
sensitive: Ammunition!

Toxicity:

Arsenic (Cotton dust)

Benzene (Gasoline*)

Chromium (Traffic
paint)

2,4-D (Brush-B-Gone)

Lead (Primers)

Lindane (Head lice
shampoo)

Methyl ethyl ketone
(lacquer thinner)

Selenium (Toner
cartridges)

Silver (X-Ray film)

... And a couple dozen
more

EPA also defines four types of specific waste – the “Listed” wastes

Acutely toxic waste – P-Listed

UNUSED:

- Warfarin (Coumadin) (rat poison)
- Aldicarb (Temik)
- Cyanides (bluing kits) (gas chamber)

UNUSED commercial chemical products: U-Listed waste

- Acetone
- Carbaryl (Sevin)
- Lindane (Head lice lotion)

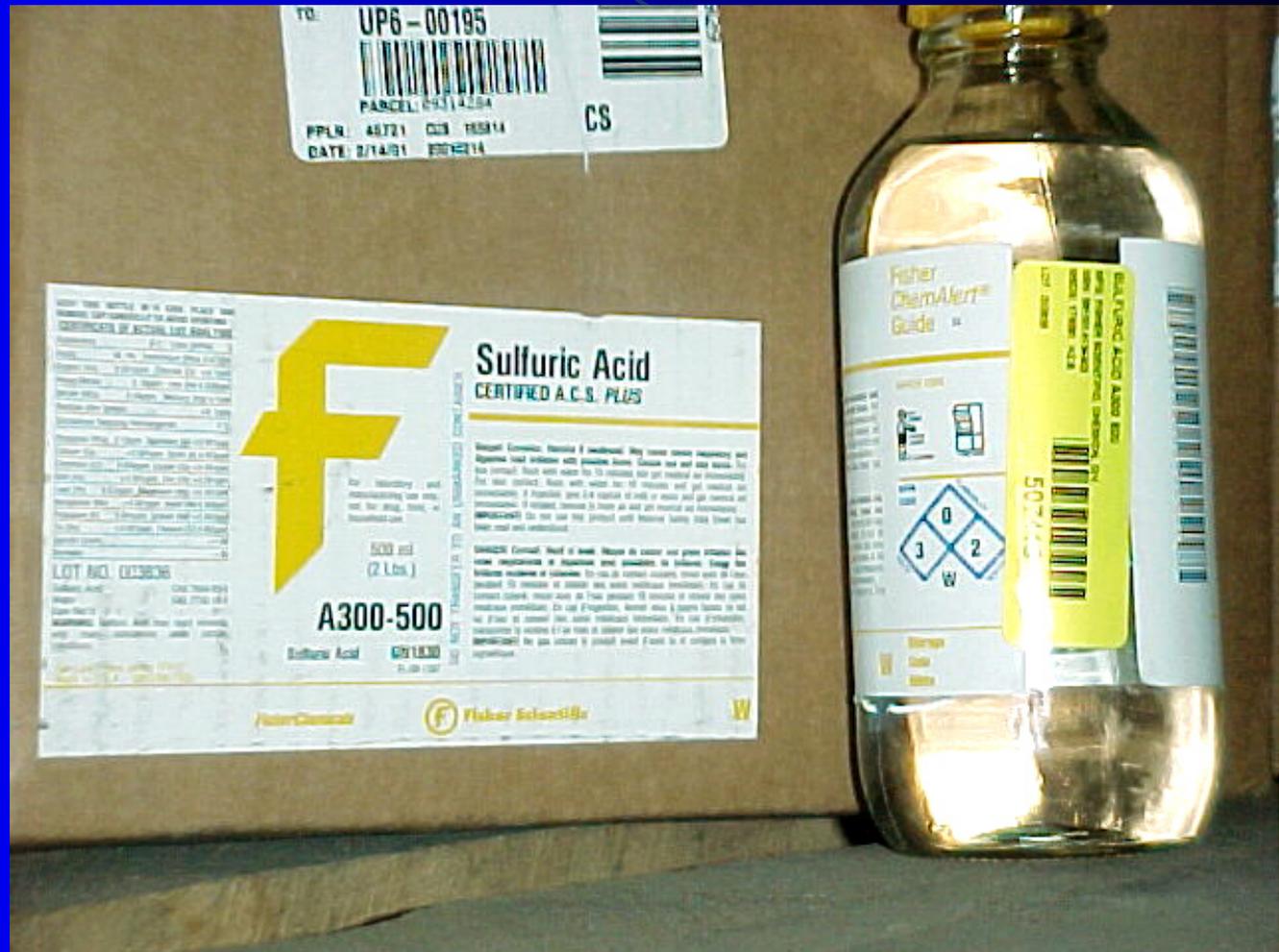
Wastes from manufacturing processes: F-Listed and K-Listed

- Degreasing solvents – F003 paint thinner

And lots of very specific industries:

- Chrome plating wastes
- Refinery wastes
- Wood treating wastes

Some hazardous wastes are obvious



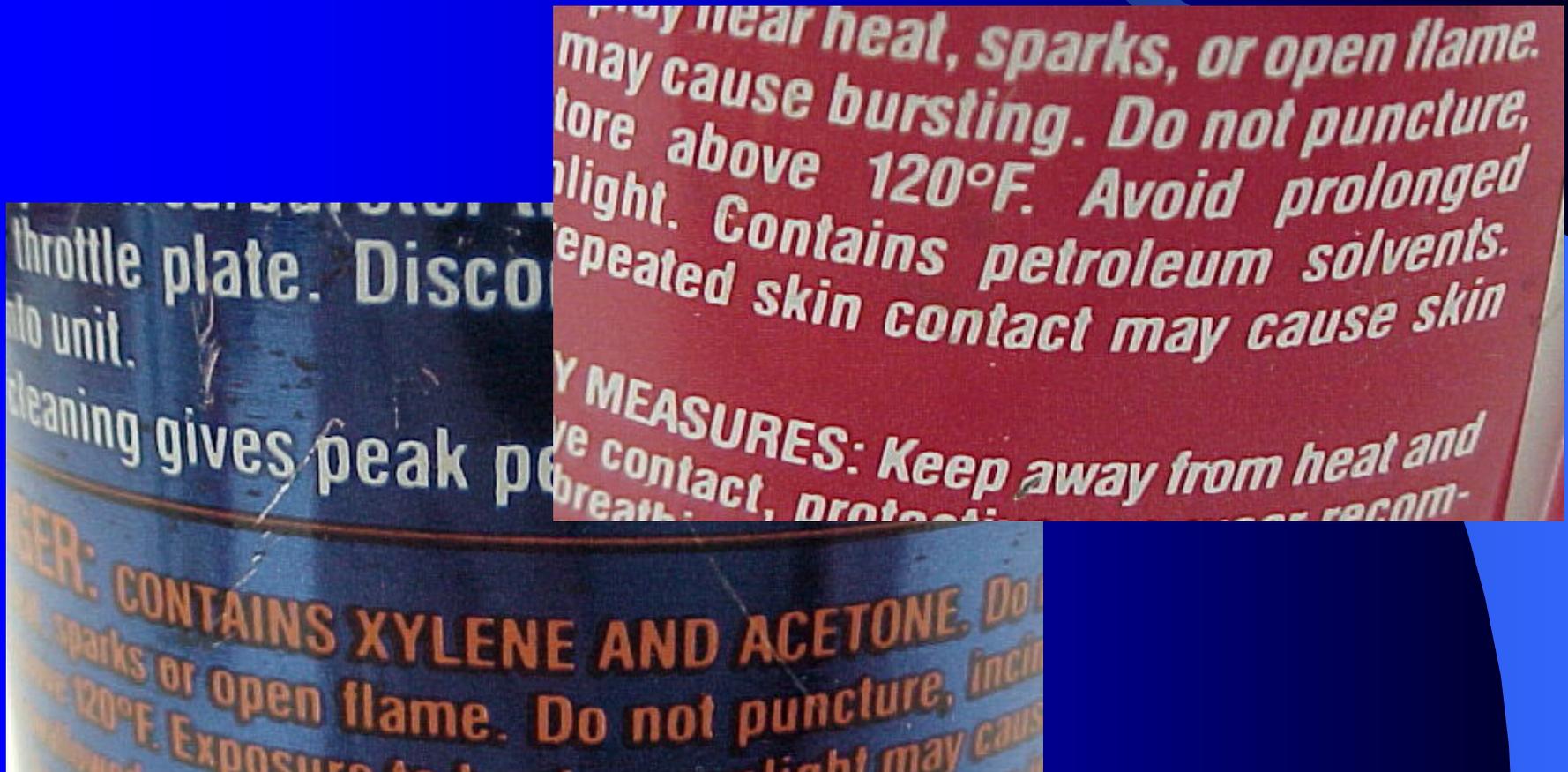
Some
are
not



Which is
hazardous
waste?

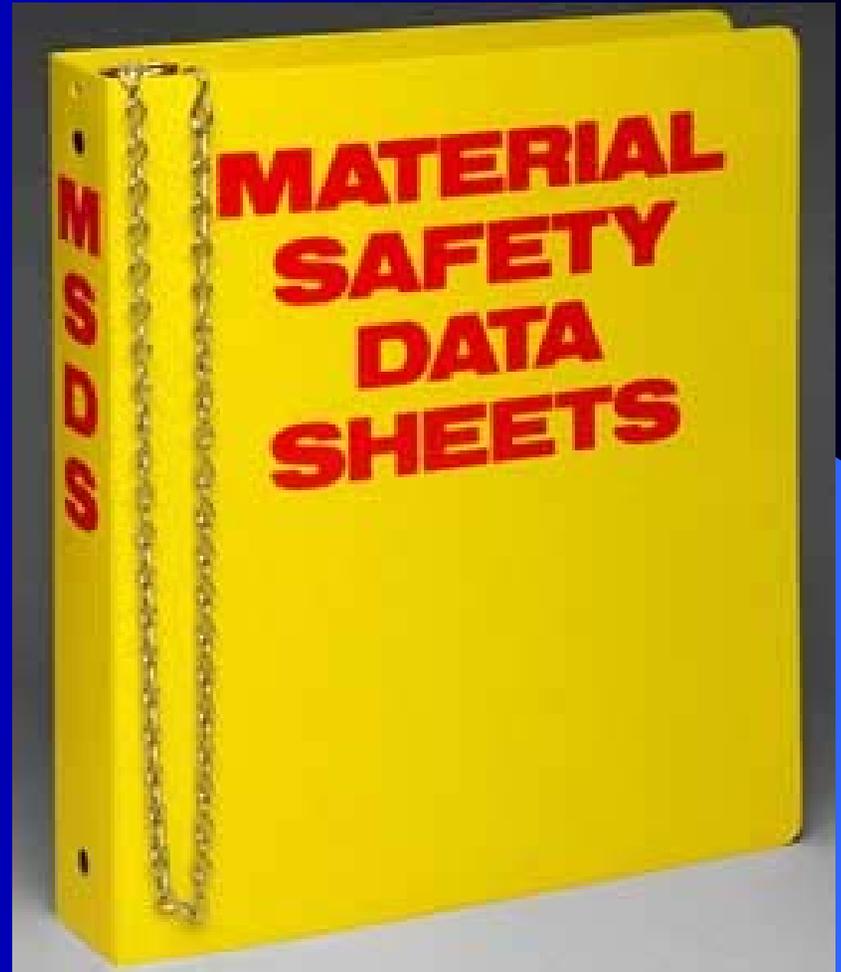


How do you tell it's hazardous?



How do you tell?

- Ask the vendor
- Use the MSDS Book
- Use the MSDS Online





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Okay, Mr. Expert, how do you
manage your own household?

Or, how big a deal is this stuff?

Most likely to kill me:



Most
dangerous
thing at
my house:



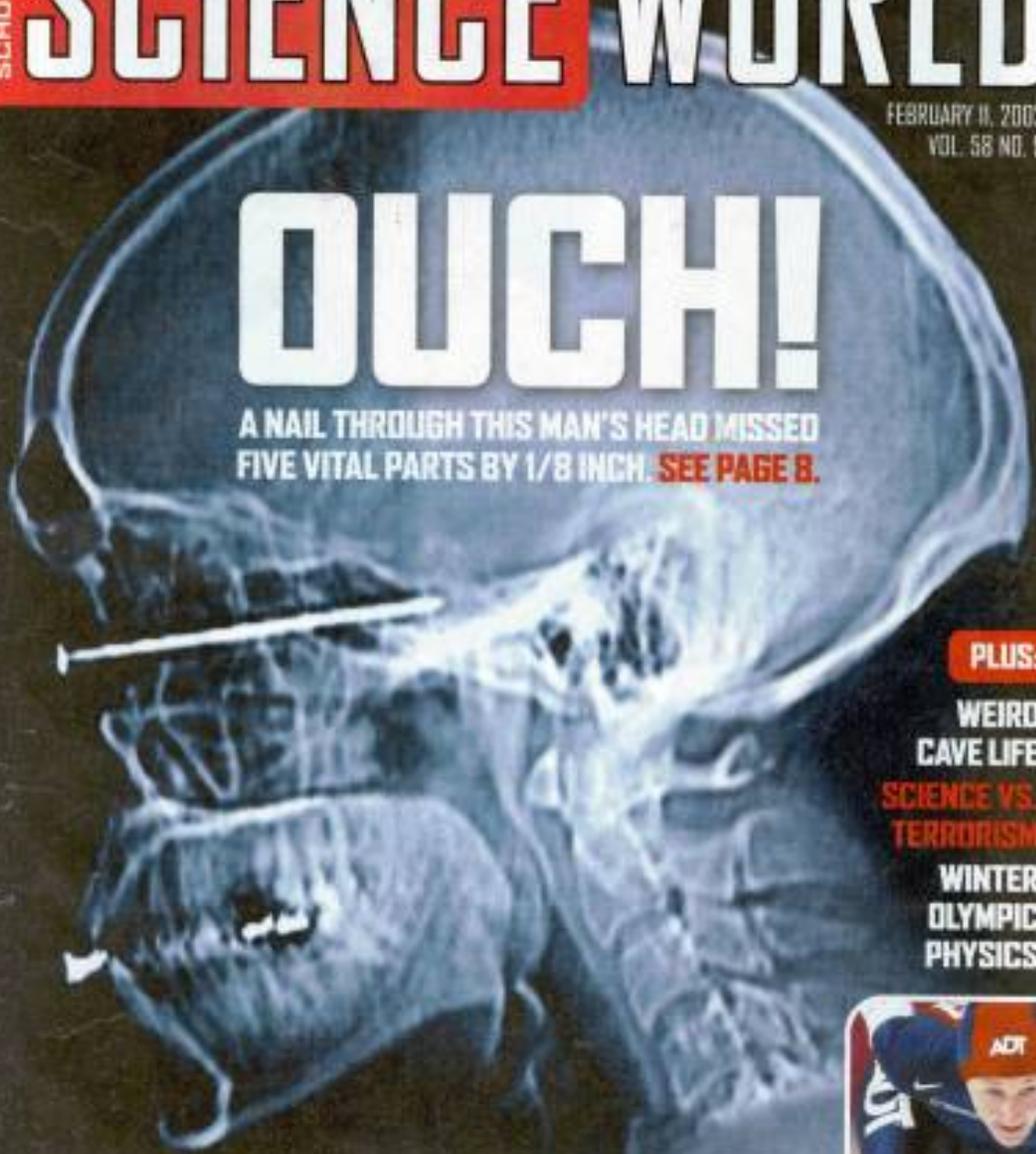
SCHOLASTIC

SCIENCE WORLD

FEBRUARY 11, 2002
VOL. 58 NO. 9

OUCH!

A NAIL THROUGH THIS MAN'S HEAD MISSED FIVE VITAL PARTS BY 1/8 INCH. **SEE PAGE 8.**



PLUS:

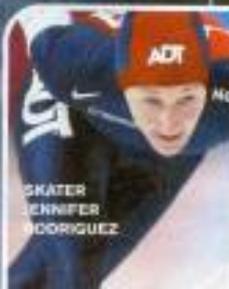
WEIRD
CAVE LIFE

SCIENCE VS.
TERRORISM

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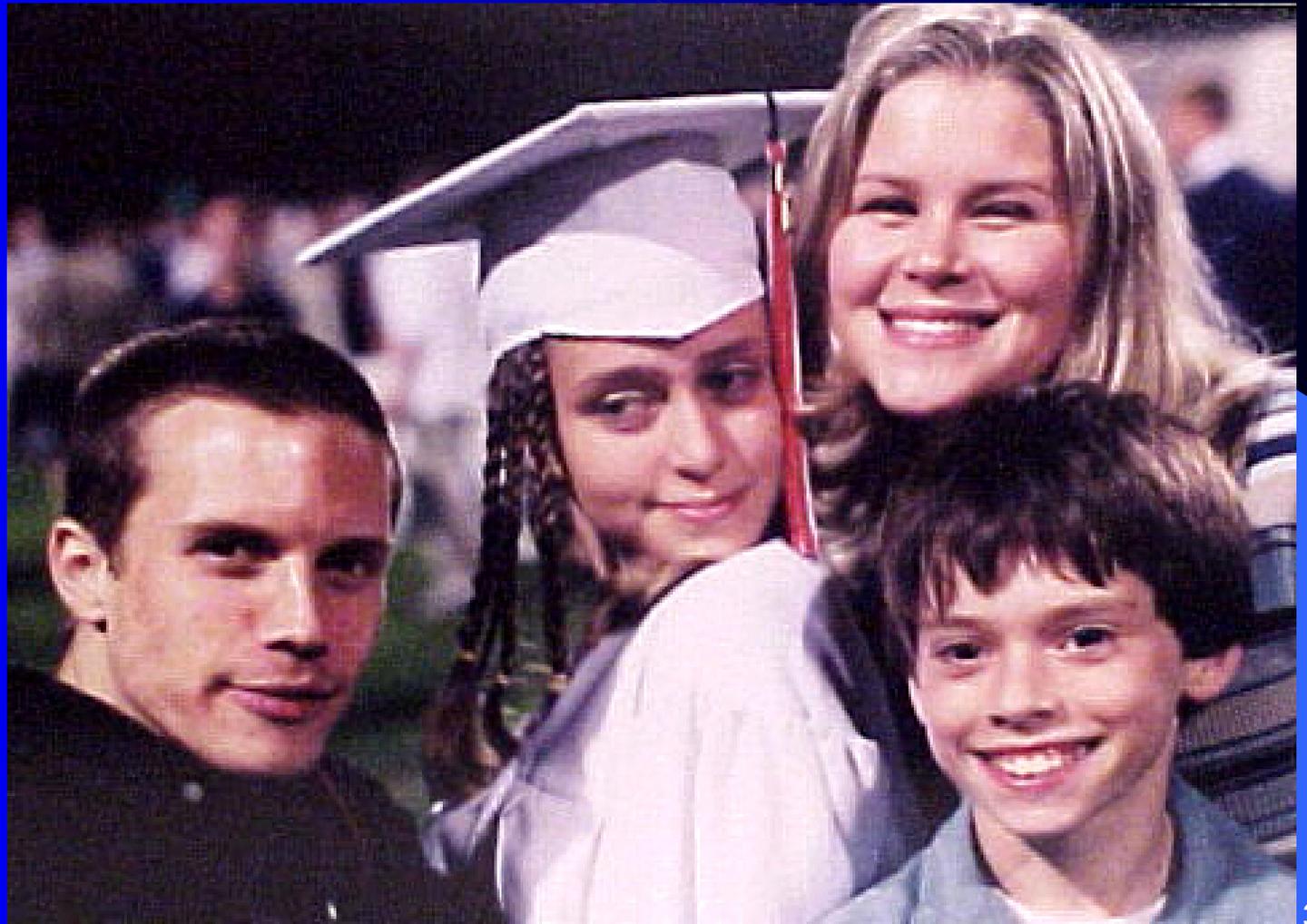
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SKATER
JENNIFER
RODRIGUEZ

See, I told you so!

Causes
the most
pain:



Paint

Buy the right size

Use it all up



Mercury-Containing Lamps:

Buy Green

Dispose Properly



Used
Batteries:

Label and
Recycle



Used Oil:

Make it easier to do
right than to mess up





USED OIL

Hazardous Waste:

Make it easier to do right than to mess up



Three generator sizes – different rules

- Large: 2200 lb/month or more, or one quart of P-listed waste. ***None of you.***
 - Inspect weekly, ship in 90 days, training, equipment, reporting, fees, many other requirements.
- Small: more than 220 but less than 2200. ***One or two of you.***
 - Ship waste in 180 days, many of same requirements.
- ***Conditionally exempt: 220 or less***
 - Ship waste when containers are full, few other requirements.

Firing Ranges:

Ignore them and they'll
go away. . . NOT



Ammunition: unused



Ammunition: used



Firing Ranges: Help!

Resources at
EPA and EPD

Best Management Practices for Lead at Outdoor Shooting Ranges



Firing Ranges: Help! Separating the Lead



Firing Ranges: The Other Problem











Laydown Yards:

Out of Sight –

Out of Mind –

Out of Compliance

Dartmouth TOXIC METALS Research Program

A program of the
Center for Environmental Health Sciences
at Dartmouth

GO TO SITE MAP ▲

SEARCH ▼

welcome

Hm¹

HOME

Tx²

TOXIC METALS

Rs³

RESEARCH

Nw⁴

NEWS

Di⁵

DIALOG

Rc⁶

RESOURCES

Ou⁷

OUTREACH

Ab⁸

ABOUT US

Ct⁹

CONTACT US

Hm¹

HOME



WELCOME

A TRIBUTE



The Trembling Edge
of Science

A Tribute to Karen Wetterhahn

Karen E. Wetterhahn was a professor of chemistry at Dartmouth College and the founding director of Dartmouth's Toxic Metals Research Program. An expert in the mechanisms of metal toxicity, Professor Wetterhahn was best known for her research on chromium. She became ill and died in 1997, at the age of 48, as a result of a tragic laboratory accident involving a highly toxic mercury compound.

In addition to her international reputation as a research chemist, Professor Wetterhahn was known to students and colleagues at Dartmouth College as a dedicated teacher and mentor. At the time of her death in 1997 she was Dartmouth's Albert Bradley Third Century Professor in the



Problem: Can't get folks to go to training
Solution: Nicer transportation



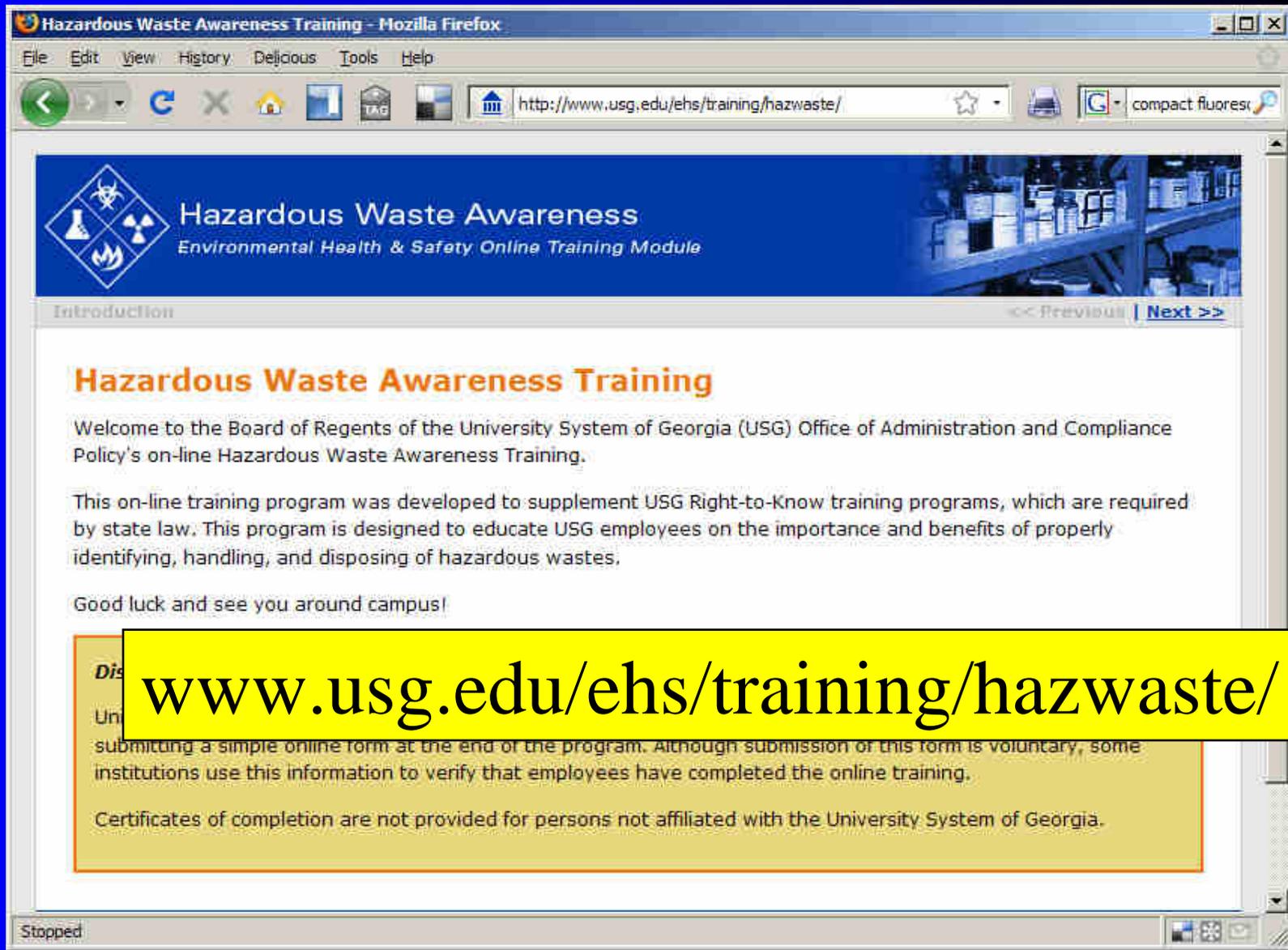
Use

What

You

Can

Get



Hazardous Waste Awareness Training - Mozilla Firefox

File Edit View History Delicious Tools Help

http://www.usg.edu/ehs/training/hazwaste/ compact fluores

 **Hazardous Waste Awareness**
Environmental Health & Safety Online Training Module

Introduction << Previous | Next >>

Hazardous Waste Awareness Training

Welcome to the Board of Regents of the University System of Georgia (USG) Office of Administration and Compliance Policy's on-line Hazardous Waste Awareness Training.

This on-line training program was developed to supplement USG Right-to-Know training programs, which are required by state law. This program is designed to educate USG employees on the importance and benefits of properly identifying, handling, and disposing of hazardous wastes.

Good luck and see you around campus!

Dis

Un

submitting a simple online form at the end of the program. Although submission of this form is voluntary, some institutions use this information to verify that employees have completed the online training.

Certificates of completion are not provided for persons not affiliated with the University System of Georgia.

Stopped



Questions?

Regulatory Interpretations?

Government Facilities Unit,

Generator Compliance Program

404-657-8831

2 Martin Luther King, Jr. Dr., SE

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Atlanta, GA 30334