

Improving Chemical Management in Maine Schools

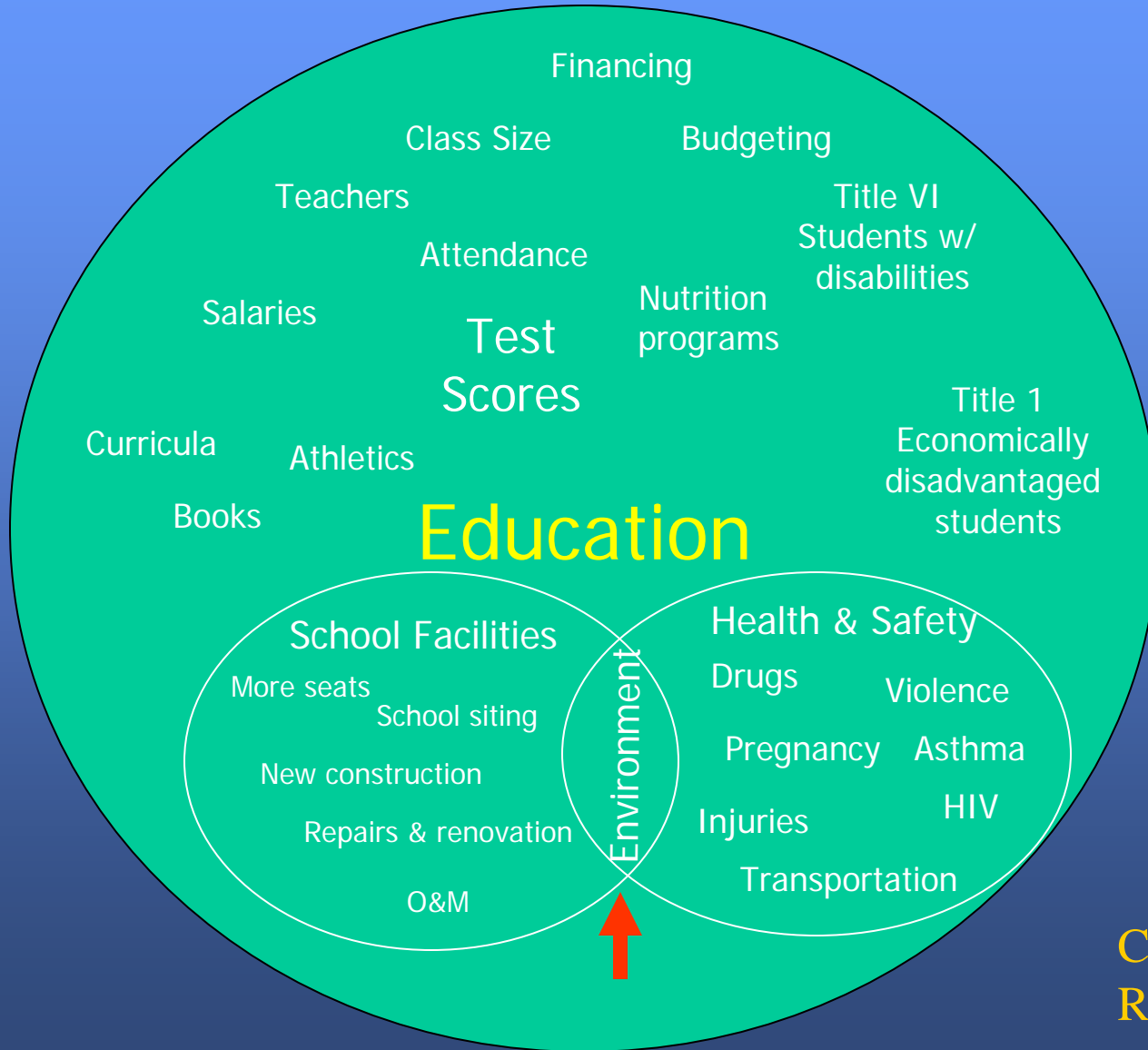
Ann Pistell

Maine Department of Environmental Protection

(207) 287-7703

1-800-452-1942

A School's View of Environmental Issues



Credit: EPA
Region I

Where Are Hazardous Chemicals In Schools?

- Maintenance Areas
- Vocational Shops
- Science Laboratories
- Art Classrooms
- Nurse's Office
- Administrative offices

Mercury Program History

- Sixteen mercury spills in Me. Schools (2001-04)
- Costly. \$6000 to \$25,000 + lawsuit.
- In D.C., Ballou spill >\$1million

We decided to go get the mercury.



After visiting a few schools,
the program was broadened.

Why?

We found a whole host of problems
including:

Improper Storage



Chemicals stored alphabetically.

Could React!

Gas in
unlocked
cabinet



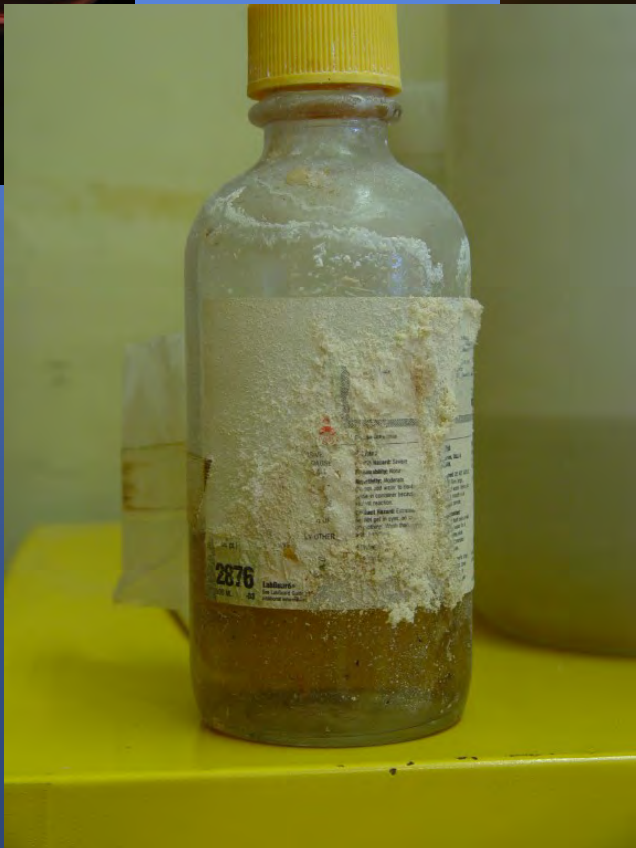
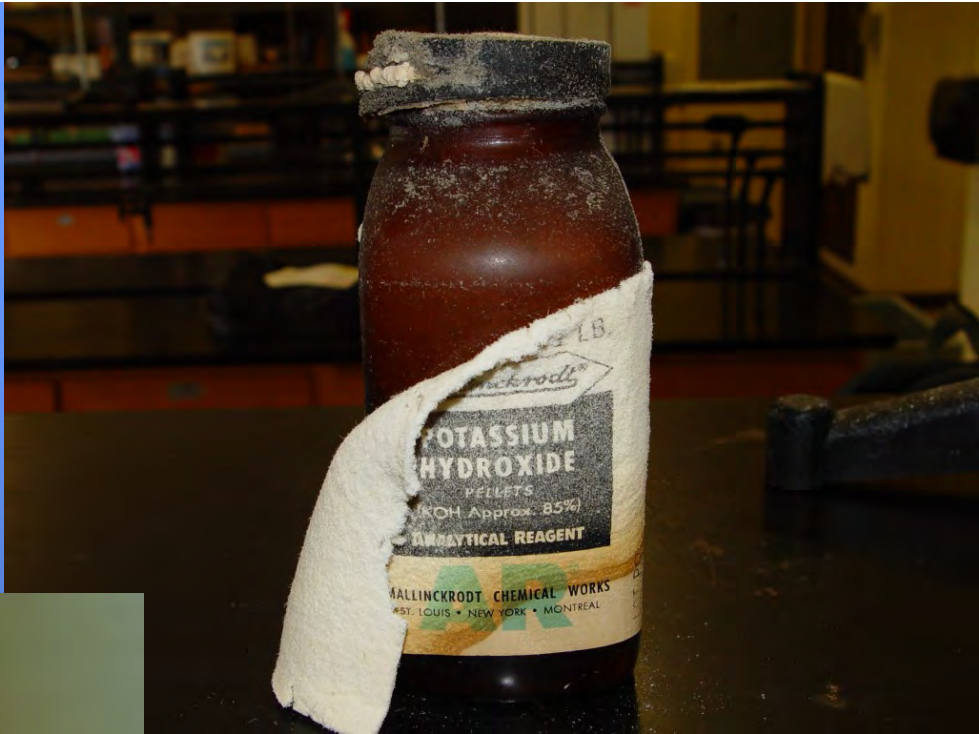
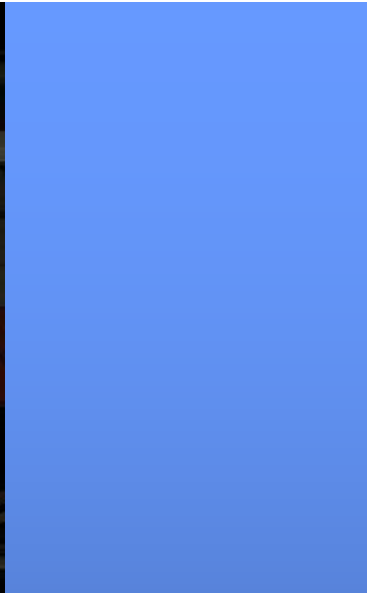
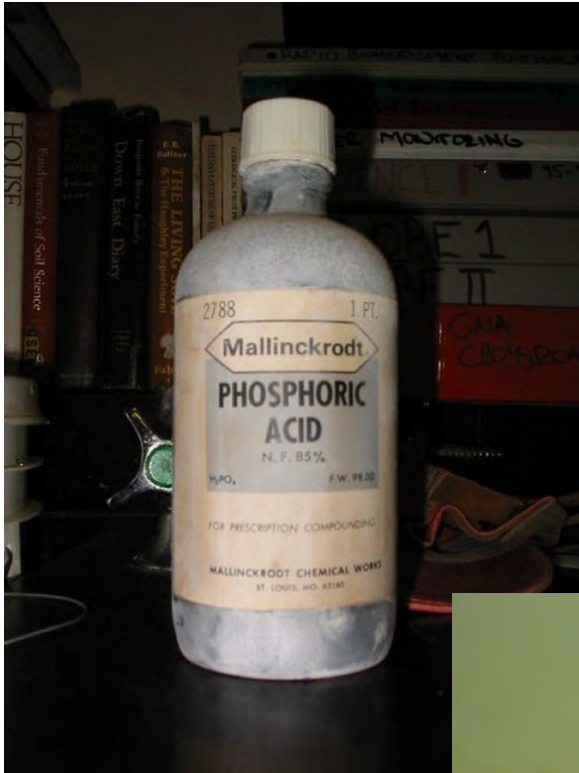
with unlocked
drawer full of
matches next to it.



Historic stockpiles

Toxic pesticides and oils in a drawer that hadn't been opened for 30+ years!





Poor chemical
condition

High Risk Chemicals

Carbon tet.
Toxic,
carcinogenic,
bioaccumulative.



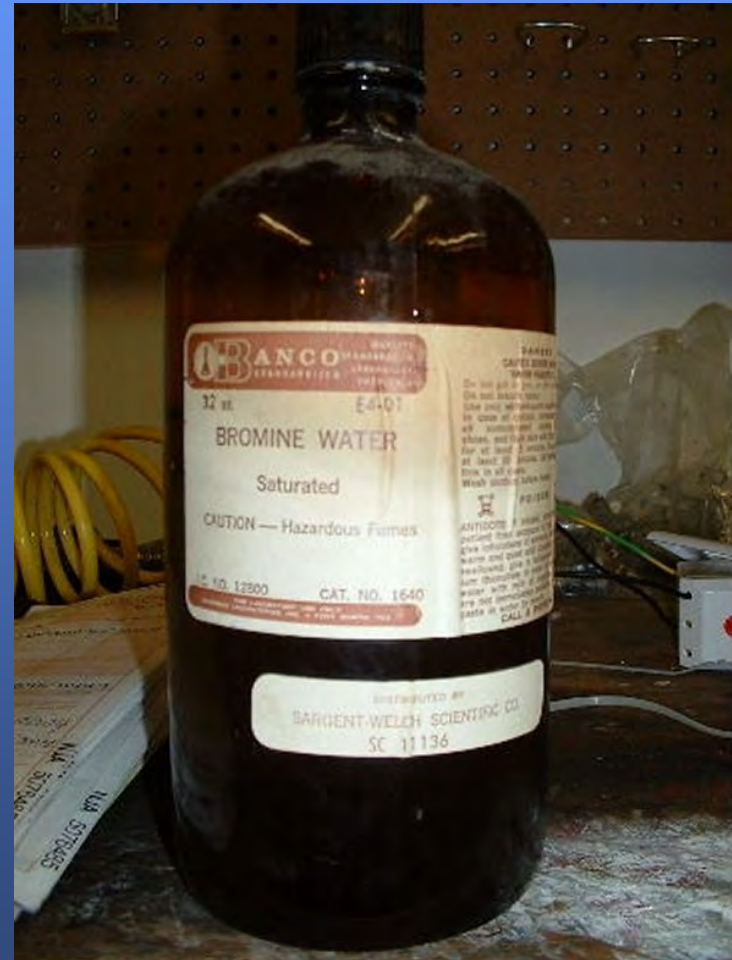
Overstock

Sam's Club
effect resulting
from spend it or
it or lose it
monies and
limited budgets.



Donations

Bromine (9/15/79),
a PIH (Poison
Inhalation Hazard),
needs special
handling. \$140+ per
bottle to get rid of!





Human Nature

The teacher insisted he was really using this!

Lack of knowledge

- Many school labs follow Flinn disposal methods
- Most methods illegal!!!
- Could result in BIG FINES

Nobody we
visited was in
compliance.

Hidden Costs

- Fines if violations are found.
- Increased insurance premiums.
- Spill clean-up costs and materials.
- Time for paperwork, arranging disposal, attending training and conducting or attending inspections.

More Hidden Costs

- Expensive storage cabinets etc.
- Required PPE and safety training
- Administrative paperwork.
- Disposal costs
- Liability if someone is hurt.

Business Managers = Important Partners

Budget for

- clean-out funds (\$1500 to \$6000 ave.)
- annual disposal funds (\leq \$1000)
- stipend for Chemical Hygiene Officer!
- teacher training
- safety equipment!

Help Establish Purchasing Policy

- Central purchasing!
- Buy pre-diluted solutions if possible
- Invest in Microscale chemistry
- Evaluate risk, storage requirements, disposal requirements, existing stocks
BEFORE PURCHASING!

Business Managers = Important Partners

If you

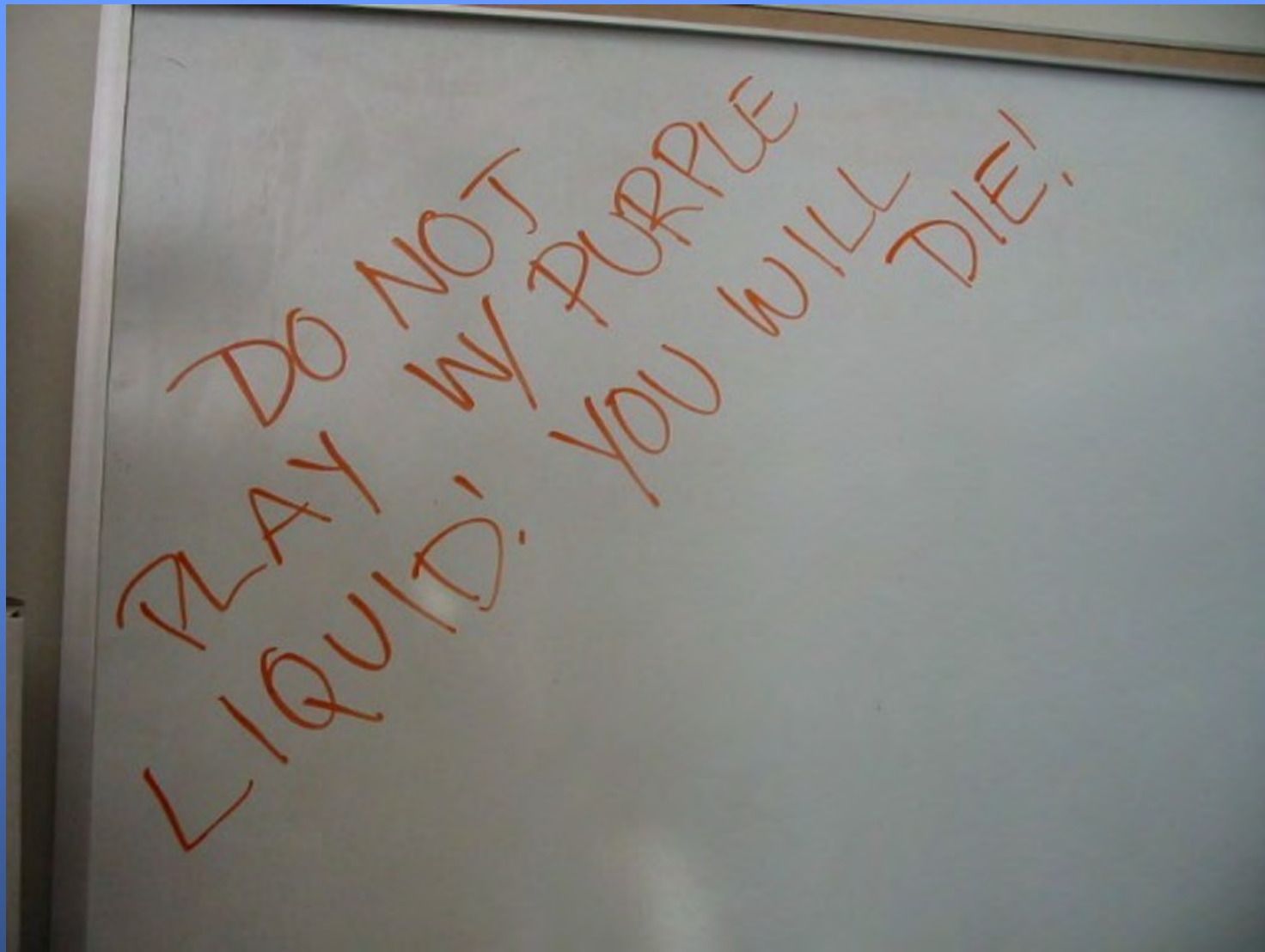
- clean out,
- use microscale or green chemistry,
- have a Chemical Hygiene Plan and current inventory

RENEGOTIATE INSURANCE!

TOOLS TO HELP

- DEP Inventory Form
- Model Chemical Hygiene Plan
- Model Purchase Request Form
- On Site Assistance
- School Environmental Guide

[http://www.maine.gov/dep/mercury/school
.htm](http://www.maine.gov/dep/mercury/school.htm)



Note to students from teacher!

THE END