

San Diego County

Office of Education

Operational Realities

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Department of Environmental Health

County of San Diego

Types Of Disasters That Schools Can Be Faced With

- Natural Disasters
- Severe Weather
- Fires
- Bus Crashes
- Bomb Threats
- Medical Emergencies
- Suicide/Homicide
- School Shootings

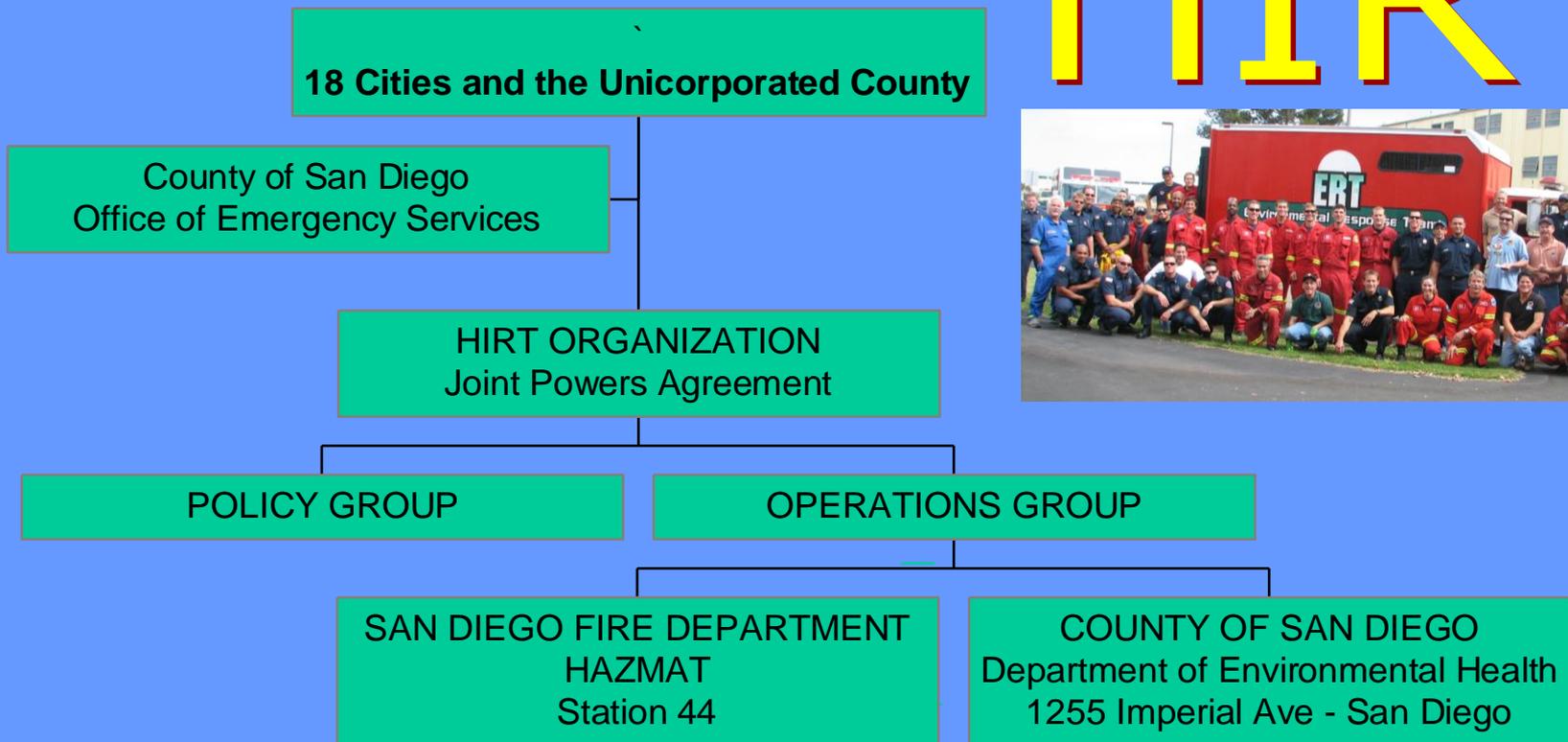
Hazardous Material Spills

Acts of Terror

Mischievous Behavior

San Diego County's Hazardous Incident Response Team

HIIRT



What kind of resources are we bringing with us?

San Diego Fire & Life Safety Services

- **44 personnel**
 - All trained as HazMat Specialist
 - 12 trained as Paramedic
 - 6 trained as SWAT Medic



San Diego Co. Dept. of Environmental Health

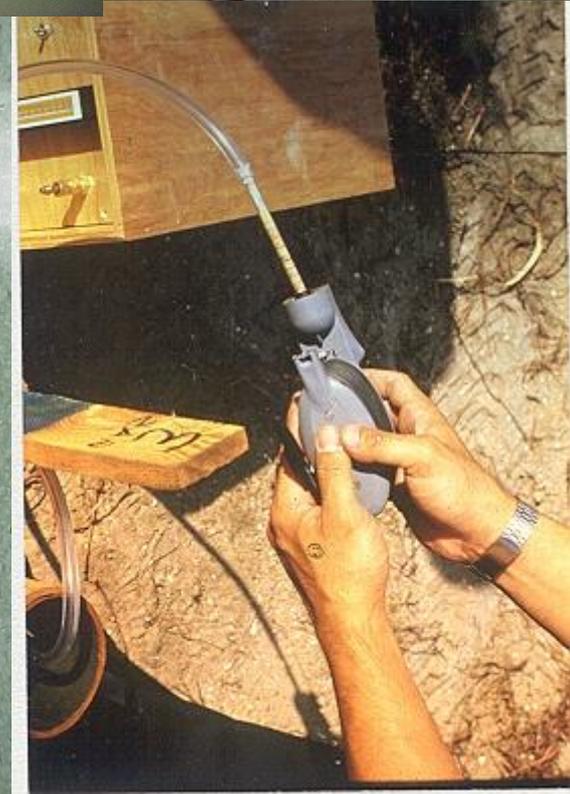
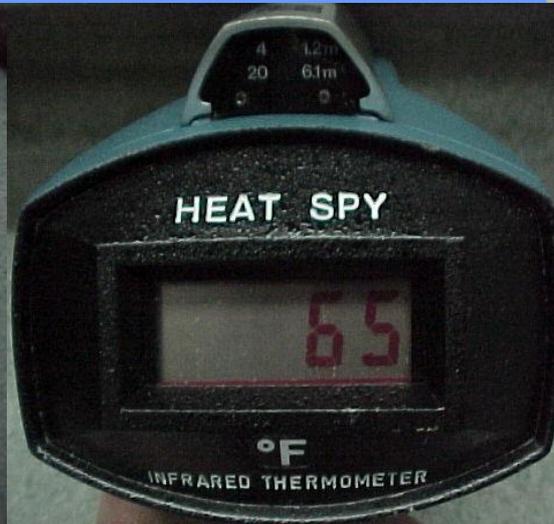


- **15 Personnel**
 - All trained as HazMat Specialist
 - All trained as Environmental Health Specialist
 - 2 trained as Industrial Hygienist



Sampling Equipment

Portable instruments



Sampling



How Do You Get In Touch With HIRT?

Call

- 9-1-1
- DEH Dispatch at 619-338-2454
- San Diego Fire Dispatch 858-974-9706
- Who, What, Where, When, How, Why
 - Your location, Facility Name, Building Name and/or Number, Room Number including cross streets and Thomas Brothers Coordinates.
 - What department is requesting assistance and who is in charge

W.W.W.H.W. Cont:

- Type and Quantity of Hazmat involved
 - Be honest with the assessment
- Number of persons injured or exposed.
- Status- Evacuations, Shelter In Place, Lockdown
- How can Hazmat contact your department at the incident location?
 - Telephone number(s), cell and landline.
- Request that Hazmat start rolling and contact you in route.
- Be prepared to be involved on multiple levels, Incident Commander, Hazmat Group Sup.

SDFD - Station 44

10011 Black Mountain Rd.
San Diego CA 92126



DEH - Response Team

1255 Imperial Ave
San Diego CA 92101



Let's Talk About Hazardous
Material Responses.....

When should you call for a Hazmat Response

- When the crisis is beyond your scope of training.
- When entry/clean-up will require specialized chemical protective clothing, training.
- Chemical related exposures or injuries.
- When you have abandoned unknown containers on School property.



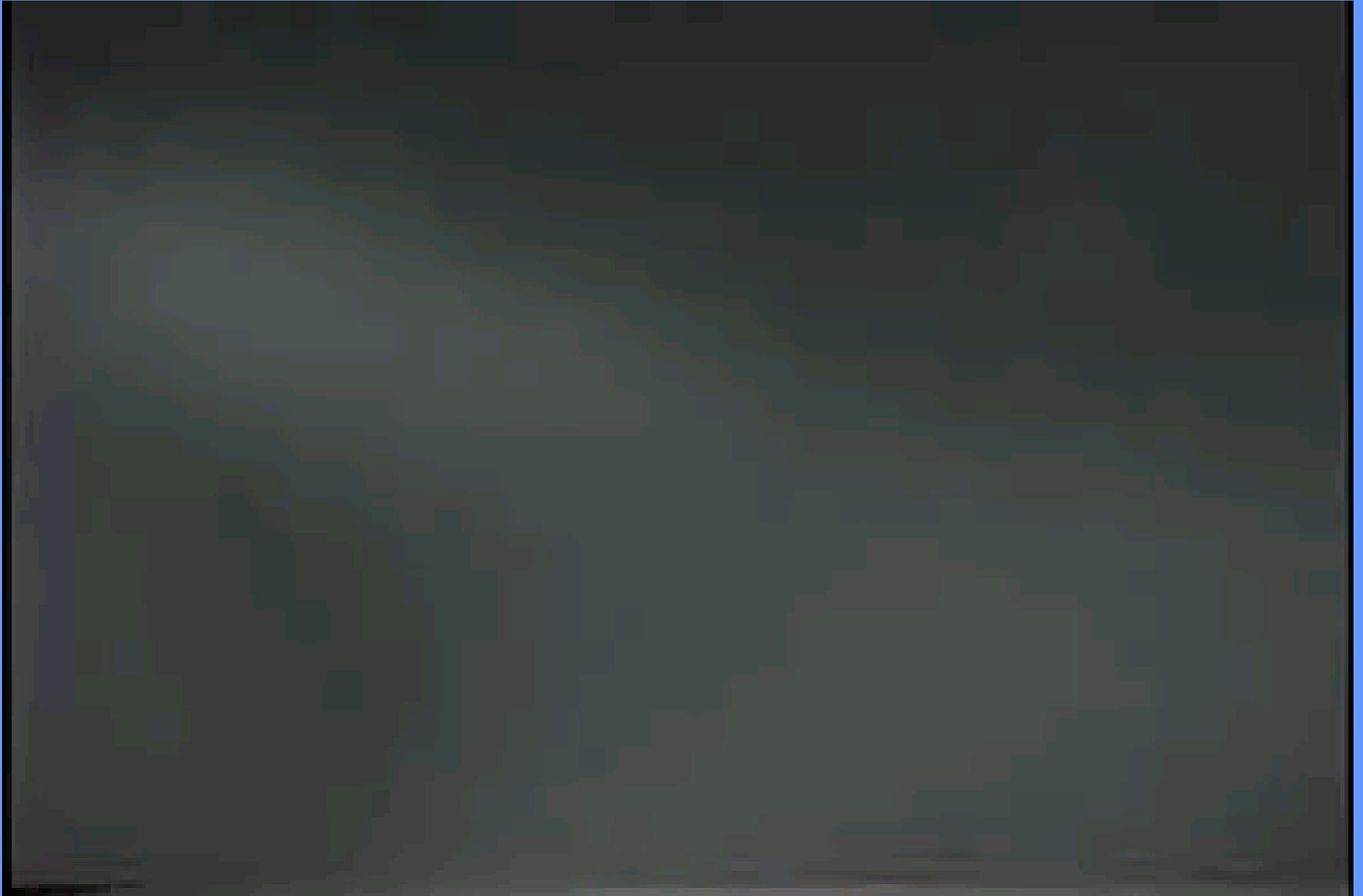
What Kind of Hazmat Incidents Occur at Schools?



Recent HIRT Responses

1. **Itching powder – Fiberglass**
2. **Pepper Balls – Pepper Ball Bullets/Spray, Mace**
3. **Mercury Spills- Very Common (Please leave it at home)**
4. **Radioactive Material Spills - University**
5. **Ammonia Cylinder Off Gassing - Near an Elementary School**
6. **Incompatible Storage of Chemicals**
7. **Aged, Old, Forgotten, Containers of Hazardous Materials**
8. **Drug lab waste at an Elementary School**
9. **Chemical Explosives – University**
10. **White Powder Response – Elementary School**
11. **Acid Bombs – Elementary School**

Utube... the new "How To" network



Storage Outside Unsecured



Incompatible chemical storage



Incompatibles in the same Container





THOUGH THE BOARD OF TRUSTEES HAS NOT SOUGHT A ROLE IN CLASSROOM PROCEDURES, RECENT DEVELOPMENTS AT HISTORIC OLD SOUTH HALL HAVE GENERATED SOME INTEREST IN UNDERGRADUATE CHEMISTRY LABS...

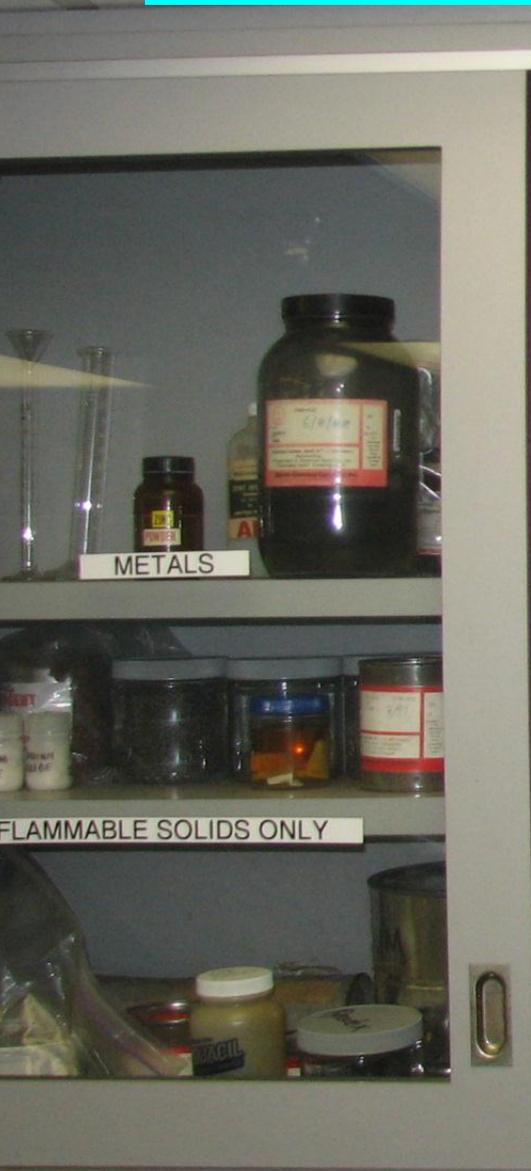
ALAN D.

Chemical Storage

- Proper Labeling
- Compatible Containers
- Flammable and Corrosive Storage Cabinets
- Secondary Containment Trays
- Segregate by Hazard Class
 - Alphabetical order- “Ill Advised”
 - Easy to find
 - Prone to unsafe mixtures being on a shelf or in a box
 - Hazard class
 - May still have unsafe mixtures if you are not careful



Chemical Storage



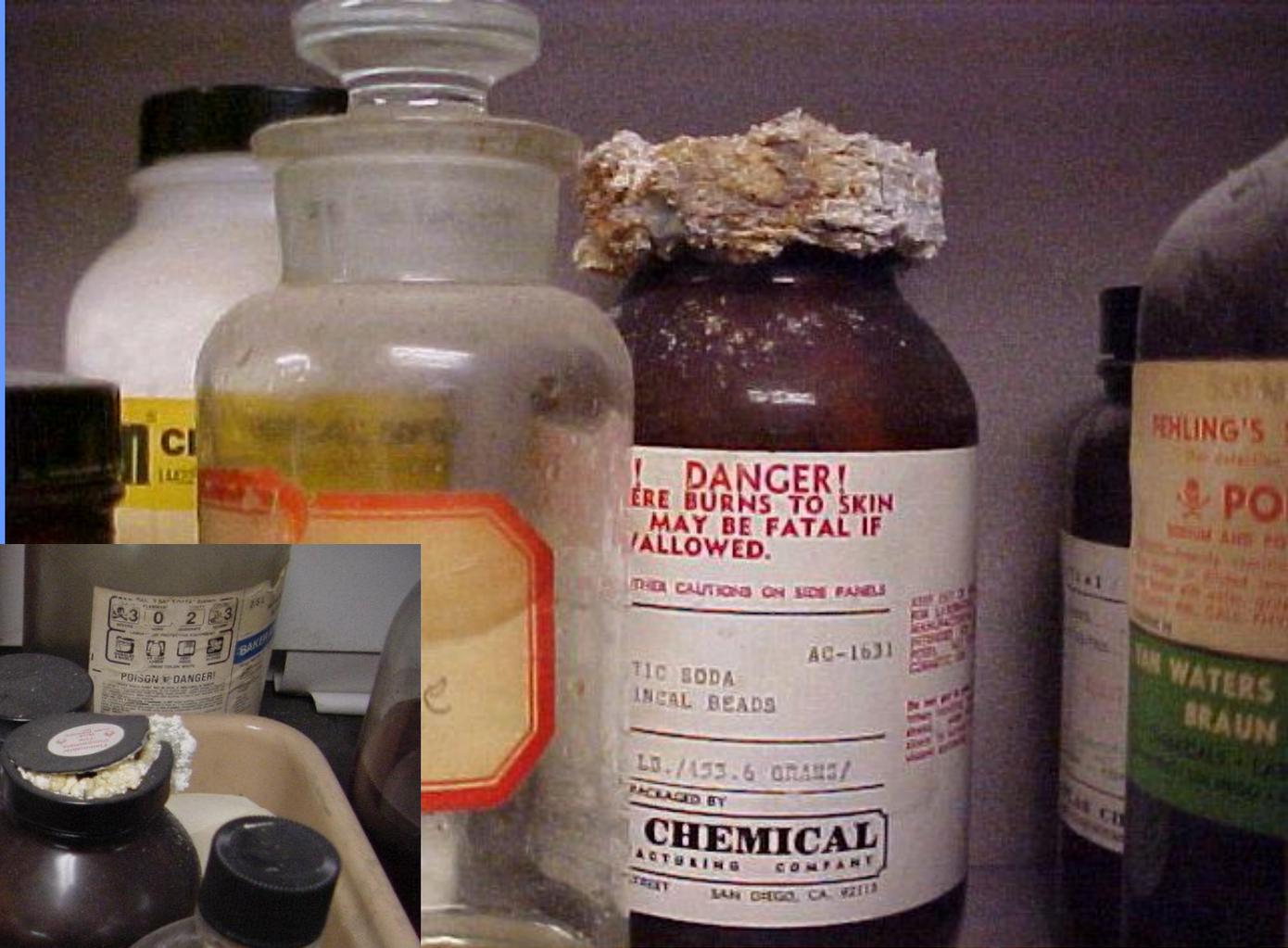
Chemical Storage



FLAMMABLE
KEEP FIRE AWAY







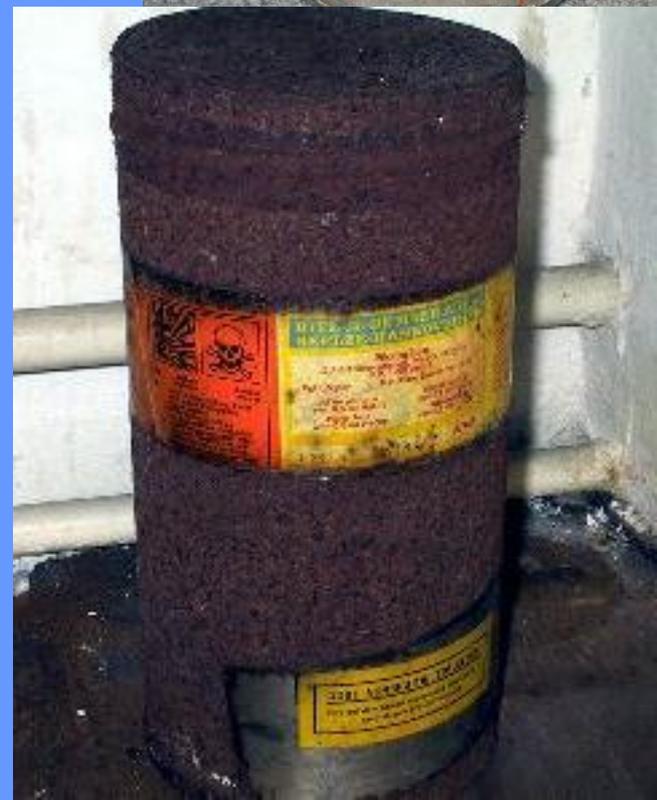
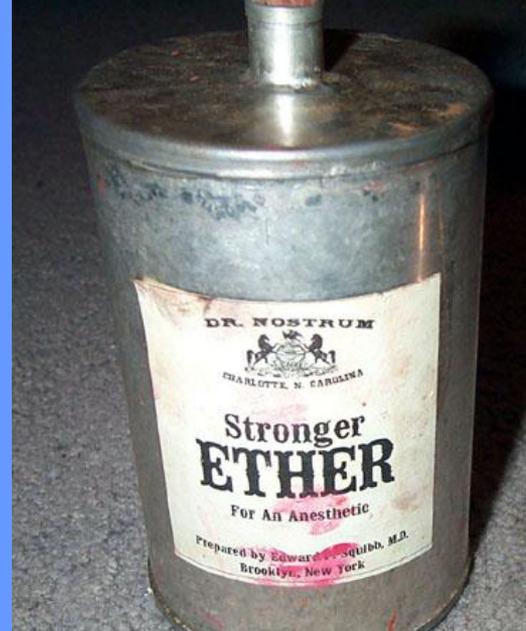
Explosive Incompatible Mixtures



Structure Lab and Teaching Plans to reduce the chance of mixing incompatible wastes.

Explosive Compounds

- Chlorite/chlorate/perchlorates
- Fulminates
- Nitro compounds
- Nitro esters
- Picrates
- Peroxides
- Azides
- Azo compounds



Emergency Mitigation



Emergency Mitigation



Drums in the Bathroom



Look for Old, Forgotten, Containers of Hazardous Materials

- Conduct an Inventory of Hazardous Materials
- Look Everywhere, misc storage rooms
- Capture information before long-term staff leave or retire.
- Note Shelf Life, Expiration Dates
- Budget for Proper Disposal

Cylinder Storage



Doesn't the Hazmat go here?



Small Incident few Responders
Big Incident Lots of Responders



Be ready to brief responders with the details of the incident, type of materials involved, and any known exposures.





Meet and confer - write incident action / Site Safety plan





Abandonment's on School Grounds



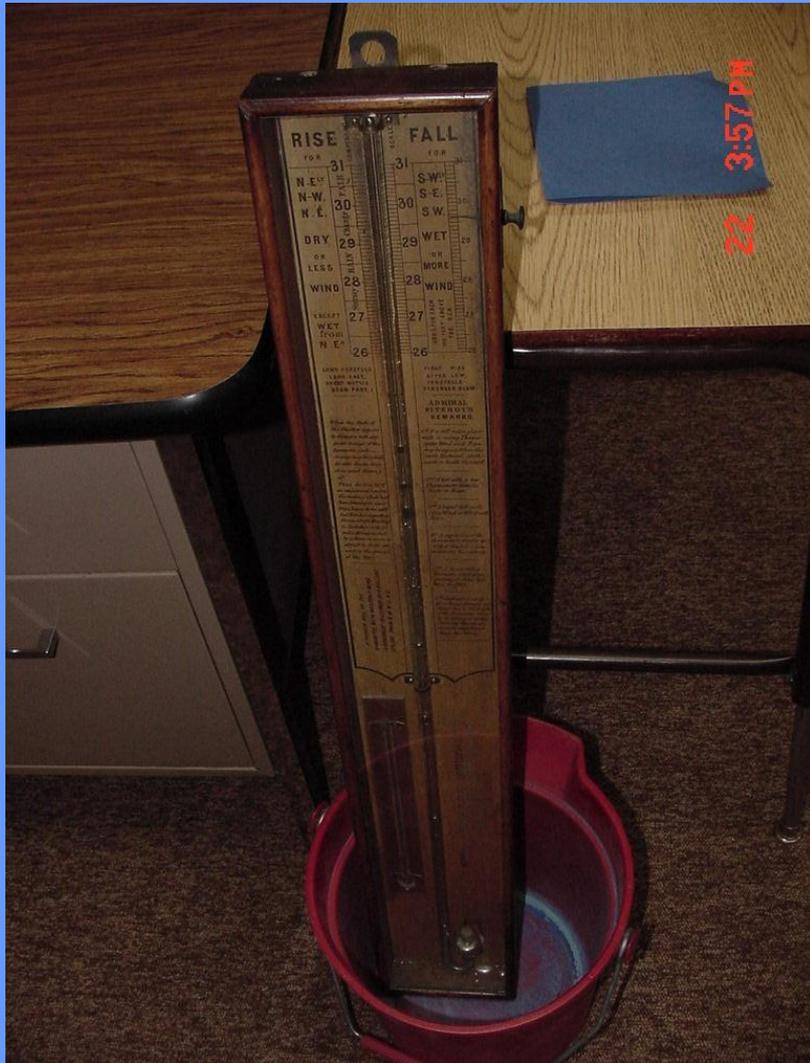


Drug lab waste found at an elementary school.

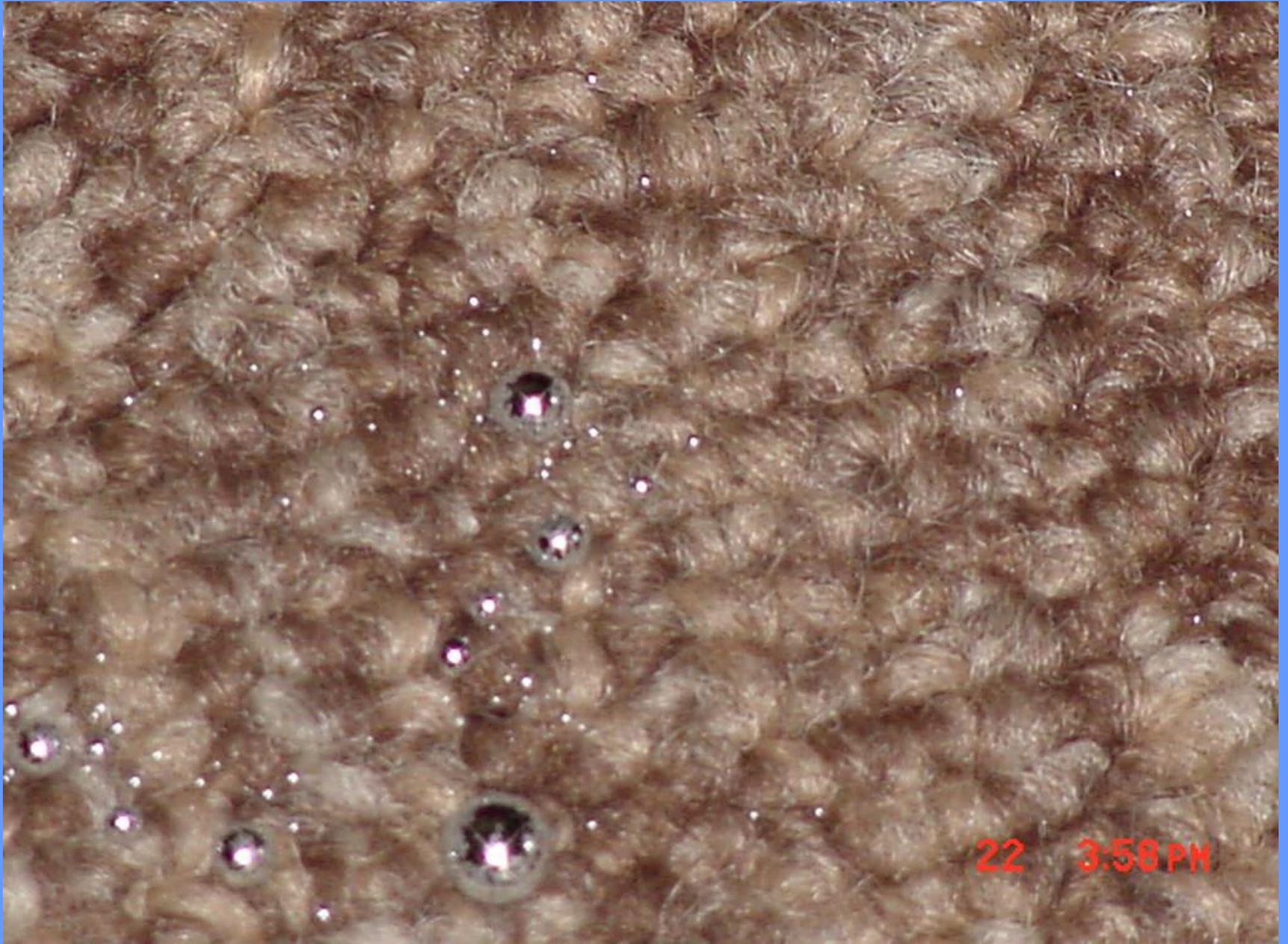
HCL Generator - Drug Lab Waste



Mercury barometer brought to school for show and tell.



Elemental mercury on the carpet at an elementary school.



Hg Spill at Calexico High School

- On January 29, students were handling a blood pressure cuff which burst, causing a mercury spill.
- January 30- School officials became aware of the incident late Friday.
- February 2 -School district officials acted quickly to notify the Imperial County Public Health Department , and emergency response procedures were initiated.
- February 3 -After consulting with Imperial County Public Health Department and U.S. EPA, the local health officer made the decision to close Calexico High School, pending assessment and clean-up.
- 110 Classrooms were assessed, 8 classrooms were identified as contaminated and the ramp outside of the classroom required cleanup.

Calexico High School Cont:

- The School District hired a contractor who is conducting the cleanup.
- EPA assessed 191 students clothes, 28 students and their associated houses were identified to be of concern and were decontaminated
- 8 of the homes in Calexico required remediation.
- Two students and a school employee lived in Calexico and testing was needed there.

Mercury Spill Kentucky

- **LOUISVILLE** - A former biology teacher at Sacred Heart Academy was arrested for allegedly trying to clean a small amount of mercury that spilled without alerting school officials.
- Dawn Marie Lechner, 34, was arrested Monday and charged with first-degree criminal mischief, a felony. She is accused of causing more than \$64,000 worth of damage to a school laboratory by spilling the chemical and for waiting until a day after the Oct. 28 spill to notify school officials.
- When mercury is spilled in a classroom, the students are supposed to be evacuated and the room sealed off, school and health officials said.

Mercury Spill Do's

- Evacuate the spill area.
- Isolate the room from the building if possible, close the door or other common access.
- Shut it down HVAC.
- Identify potentially contaminated persons, contaminated clothing and shoes must not be worn off-site.
- Report the spill.

Implement a Mercury Elimination Program

Mercury Spill Do Not's

- **DO NOT**
- Do not walk through the spilled mercury or touch it with bare hands.
- Do not vacuum the spill.
- Do not broom the spill.
- Do not conduct cleanup unless you have the necessary training, equipment and PPE



When A Crisis Strikes Should
You Evacuate or Shelter In
Place?

Depends On The Crisis

Ammonia cylinder adjacent to an elementary school.



Evacuation vs. Shelter in Place

Shelter in Place: Purpose of sheltering in place is to keep threatened people inside a protective structure. Sometimes this is the only practical protective action especially in congested urban areas or with special populations.

Keep the public inside structures and have them close doors, windows, ventilation systems, ect., to make the structure air-tight as possible.

Evacuation vs. Shelter in Place

Evacuation: Purpose of evacuation is to remove people from threatened area of hazard to a safe area of refuge (e.g. evacuation shelter).

This can be logistically and operationally difficult to execute for a large area.

Especially with a large number of kids

Make A Plan! And Practice!

Department of Environmental Health
Disaster Preparedness Plan

CHD



DEH

FHD

HMD

LWQD

"Environmental and public health through leadership, partnership and science"

HIRT DEH 619-338-2454

HIRT San Diego Fire Dispatch 858-974-9706

DEH-HIRT

www.sdcounty.ca.gov/deh/hmd/hirt/main.html

Learn About Chemicals Around Your House

www.epa.gov/kidshometour

UCSD Environmental Safety

<http://www.ucsd.edu/>

San Diego County Office of Education

www.sdcoe.net

U.S. Department of Education

www.ed.gov/admins/lead/safety/emergencyplan/index.html

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