



# **Conducting a Laboratory Inspection**

---

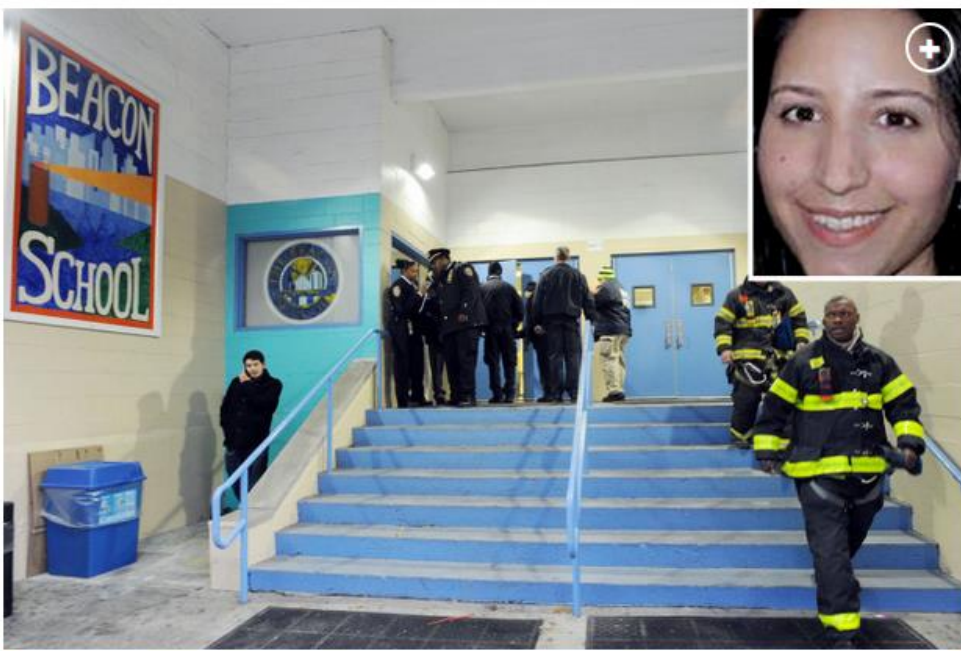


METRO

# Safety lapses eyed in Beacon School chemistry fire

By Larry Celona and Laura Itallano

January 3, 2014 | 7:19pm



An accident during an experiment at the Beacon School conducted by teacher Anna Pool (inset) injured two students.

Photo: Kristy Leibowitz

## MORE ON: BEACON SCHOOL

Teen with fear of large crowds asking for school reassignment

A Beacon School chemistry teacher accidentally poured highly explosive methyl alcohol directly into a still-flaming crucible, and her students had no safety gear or barrier to protect them from the resulting fireball, sources said Friday.

## COLUMNISTS

Fredric U. Dicker



Legendary NY Republican rips party for not backing Trump

Steve Cuozzo



How Donald Trump helped save New York City

Kyle Smith



Lazy de Blasio is completely tone-deaf to the city's needs

SEE ALL COLUMNISTS ▶

## TRENDING NOW IN METRO





# **INSPECTION IN DEMO CLASSROOMS**

---



# Demo classroom should at minimum have...





# **INSPECTION IN LAB CLASSROOM**

---





# Eyewash/Showers

- Ensure easy access to eyewash and emergency showers
    - Do not block access
    - Eyewashes should be at the teacher's demo table of all science room
    - Safety shower should be available in the acid room
  - Should test eyewashes/safety showers weekly
    - Run/flush for 2-3 minutes
    - FDNY require an annual inspections
-



DO NOT REMOVE  
BY ORDER

## THE STATE FIRE MARSHAL

**Business Name**  
**Business Address**  
**City State Zip**  
**Phone**

ENDORSEMENT # \_\_\_\_\_

LICENSE NO. \_\_\_\_\_

SERVICED BY \_\_\_\_\_

- ABC (DRY CHEM)
- BC (DRY CHEM)
- CARBON DIOXIDE
- AFFF/FFFP
- CLASS D
- FE-13
- FE-36
- SYSTEM
- FIRE HOSE
- SPRINKLER
- HALON 1301
- WATER MIST

- LOADED STREAM •
- PURPLE K (METAL)
- HALON 12
- HALOTRON
- INERT
- CLASS
- FME
- ALA
- WAT
- BACKFLOW
- WET CHEM
- CLEAN AG

# 2012

VOID 1 YR. FROM MO. PUNCHED: SYSTEMS & M

SERVICED			NEW		RECHARGE		
DEC	NOV	OCT	SEP	AUG	JUL	JUN	MAY
							APR
							MAR

(Model No.) \_\_\_\_\_

(Mfr.) \_\_\_\_\_

OWNER'S I.D. NO. (if used) \_\_\_\_\_

REMARKS \_\_\_\_\_

Dry and Wet Chemical Fixed  
Temperature-Sensing Element Data  
Year Manufactured \_\_\_\_\_  
Date Installed \_\_\_\_\_

## MONTHLY INSPECTION RECORD





# Fire Extinguishers

- Mounted and located to exit
    - Do not use as door stops
  - Do not block fire extinguishers
-





# Electrical Safety

- GFCI (ground fault circuit interrupter) protection for electrical outlets near (6ft) from water source
  - Maintain plugs, cords, and equipment in good condition
    - Look for cracked cords, bare insulation
  - Do not cascade power strips and extension cords
-















# Fume Hoods

- Hoods are not storage cabinets
    - Temporary storage for experiments is acceptable
    - Excess storage interferes with air flow
    - Any equipment stored in hoods should be elevated to allow air to flow properly under equipment
-



# **INSPECTION IN PREP ROOM**

---



## Safety Equipment Survey (Prep, Lab, Demo)

School:

Date:

Item	352				
Eyewash/Drench Hose Combo	✓				
Safety Shower	✗				
ABC Fire Extinguisher	✓				
GFCP's	✓				
Emergency Gas Shut Off	✓				
Emergency Electric Shut Off	✓				
Ductless Fume Hood*					
Ducted Fume Hood	✓				

\*Misonix Ductless Fume Hood model #FE 3650 are inappropriate Fume Hoods.

# Inspection in the Prep Rooms... similar to classroom inspection

---

# Housekeeping

- Gives a general impression of the overall condition of your lab
  - Includes benches, hoods, cabinets, sinks, refrigerators and freezers
  - Clear aisle
  - No eating in any science space
  - No old, damage, corroded chemical bottles
-



92  
20

noise

GREAT WHITE COPY  
99.99% JAM-FREE  
99.99% SANS BLOCAGE  
99.99% LIBRE DE ATASCOS

husky copy

UCS

LIVING ENV.  
LMS 6B  
11/5 →

SCI. 109

Business 4200  
Commercial 4200  
XEROX

SCIENCE 109

INNERMILL



# **MOCK PREP/CLASSROOM INSPECTION EXERCISE**

Room 305 in ABC High School

---













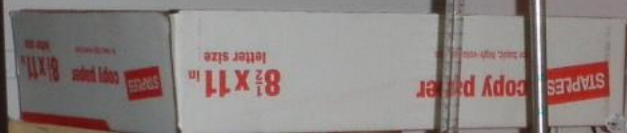












ACID

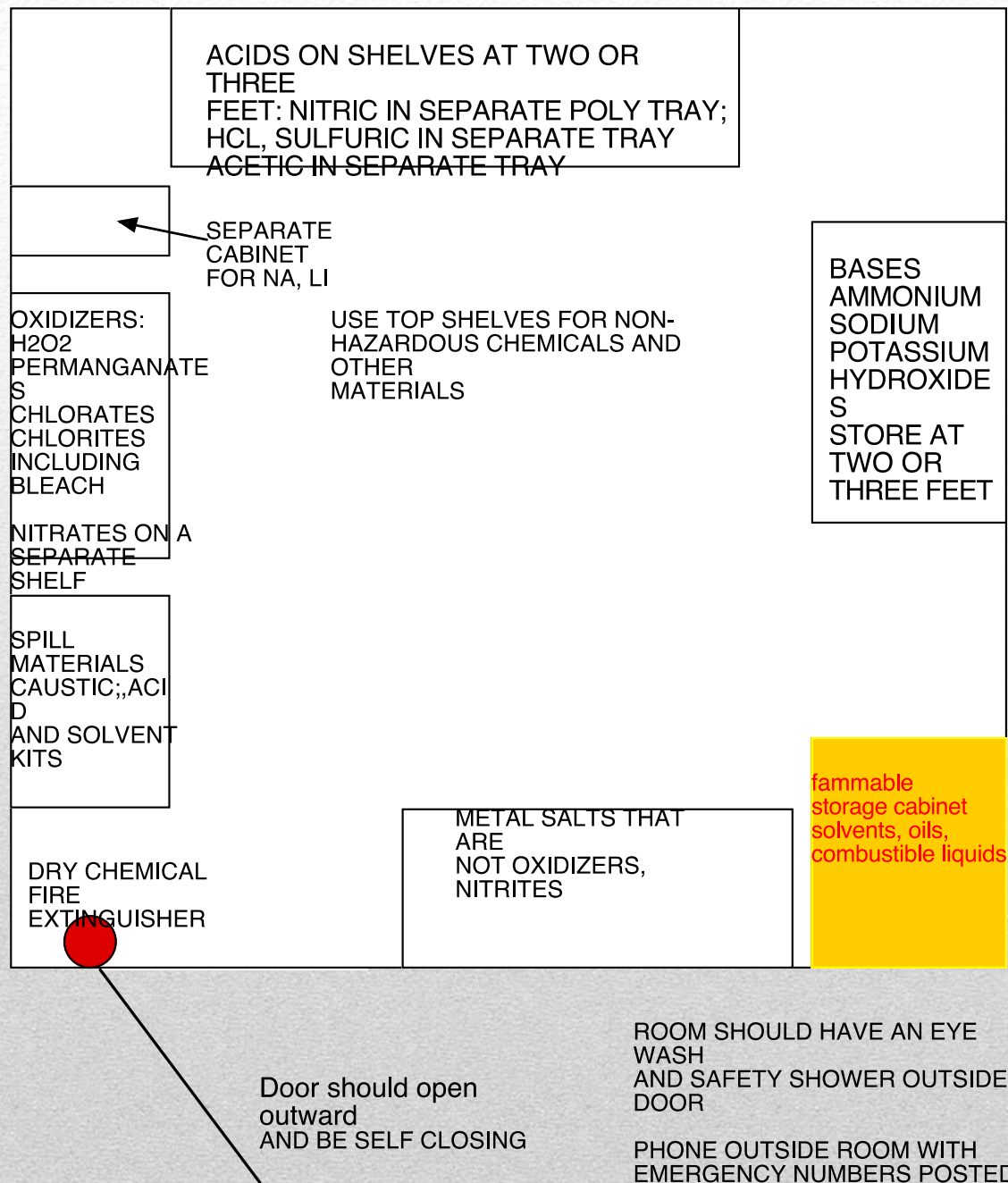


# **INSPECTION IN THE ACID STOREROOM**

---



# Storage Scheme for School Labs





**The door to the acid room should be a self-closing fire rated door.**

**413A**  
ACID ROOM

**Look on the hinge side of the door for a fire rating label ...**

SWINGING TYPE FIRE DOOR  
FIRE RATING 1-1/2 HOUR (B)

TEMP RISE 30 MIN. > 650°F

CONFORMS TO UL10B, UL10C, & UBC7-2 (1997)

FIRE DOOR TO BE EQUIPPED WITH FIRE EXIT HARDWARE  
FOR (S) RATING: CLASSIFIED GASKETING REQUIRED

MEA 104-00-M

ISSUE NO:  
A-1018



STEELCRAFT  
CINCINNATI, OH  
P/N 31459





# **CHEMICAL STORAGE**

Proper Labeling

Chemical Segregation

Chemical Storage

---

# Chemical Labeling

- All containers must be labeled
    - Includes wash bottles, reagent bottles, and other chemical containers
  - Labels must identify contents
  - Should date containers when received and opened
    - Dispose of expired and old chemicals
-



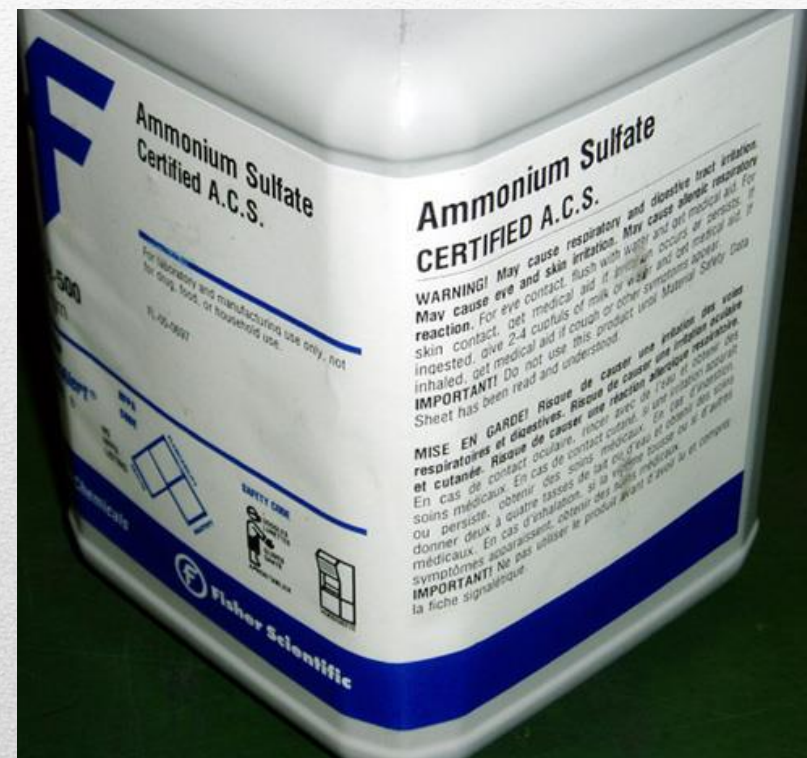
# Color Coding



**RED** - Flammable and combustible. Store separate from other chemicals.



**YELLOW** - Oxidizer. Store away from flammables.



**BLUE** - Health Hazard - Toxic. Store in secure area.

# Chemical Segregation

- Store chemicals according to hazard class
  - Do not store chemicals by:
    - Alphabetically
    - Carbon number (organic chemicals)
    - Liquids versus solids
    - Small bottles versus large bottles
    - Whatever fits on the shelf
-



# Chemical Storage

- Do not store hazardous liquids above eye level
    - Especially no acids or bases
    - Other chemicals injurious to the eyes
  - Do not store chemicals on the floor without a secondary container
  - Store chemical away from heat
-



# **MOCK ACID INSPECTION EXERCISE**

Room 307 in ABC High School

---

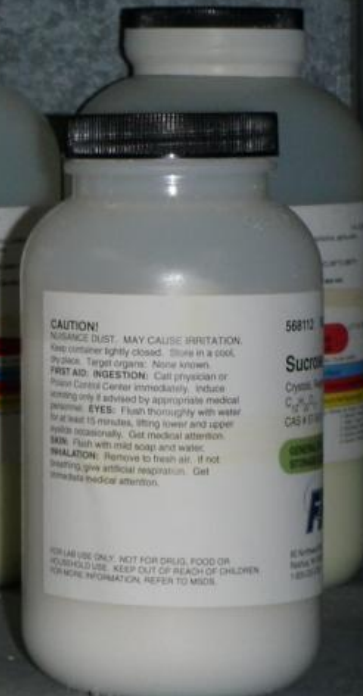
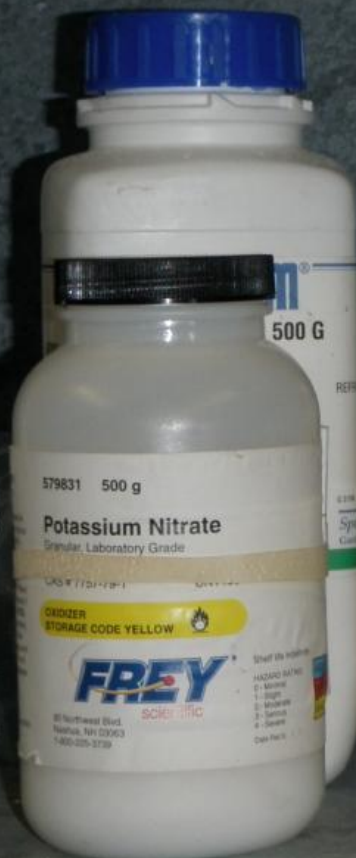




















# Thank you

Contact UFT Safety and Health **212-598-9287** or  
contact your DR

---