FDNY INSPECTION LIST FOR CHEMICAL LABORATORIES

Permit – It is unlawful to operate a laboratory or storage room in which flammable liquids, flammable solids, flammable gases, oxidizing materials, explosive materials, unstable or reactive chemicals are used in testing, research, experimental or instructional work, without a permit from the FDNY Fire Commissioner.

Guidelines Requiring a Fire Permit for Laboratories
(One or more of the following criteria will warrant a Permit)

- ☑ 32 ounces or greater of a flammable liquid
- ☑ _ pound or greater of a solid oxidizing agent
- ☑ A flammable gas cylinder that is at least 20 inches in height or 6 inches in
- ☑ diameter
- ☑ 10 gallons or greater of a combustible liquid
- ☑ 15 gallons or greater of an acid

LABORATORY SAFETY

Certificate of Fitness (Type C-14) - In all locations where there are laboratories in operation, at least one person per floor must have obtained a Certificate of Fitness (Type C-14) from the FDNY. This CoF must be posted at all times in all laboratories. Information can be obtained by calling 718.999.1986 or by going to: http://www.nyc.gov/html/fdny/html/c_of_f/cof_study_materials.shtml

Labeling of Containers – Chemical containers and gases in all chemical laboratories and storage rooms shall be clearly and properly labeled to include the containers contents and any special conditions required to maintain safe storage of the container.

Potentially Explosive/Reactive Chemicals – It shall be the duty and responsibility of the permit applicant or designee, to clearly record on the container, in indelible ink, the opening date of the following chemical groups:

- ☑ Picrics originating at less than 10% hydration;
- ☑ Perchlorates;
- ☑ Peroxides; (arrange to have these chemicals tested at least once every six
- ☑ months)
- ☑ Peroxidizable materials;
- ☑ Polymerizers that react violently in polymerization or become hazardous
- ☑ after polymerization; and
- ☑ Any other material stored or used which are known to deteriorate or to
- ☑ become unstable or reactive.

Dispose of all within one year of opening date.

Spill Kits – Neutralizing or absorbing agents shall be provided at all areas used for the storage of acids. (All labs have a spill kit)

Fire Extinguisher – Provide one approved workable fire extinguisher, Type ABC in each lab.

Safety Shower/Eye Wash – Where more than 5 gallons of corrosive acids or 5

gallons of flammable liquids are stored or used (fixed or flexible) shall be provided within 25 feet of the laboratory door – unobstructed.

Compressed Gas Cylinders – Properly secure all cylinders with a chain or other suitable holder. Cylinders shall have a stamped-on date which certifies that the cylinder has been hydrostatically tested within the past 10 years. Return empty or non-conforming cylinders to the manufacturer. Dispose of lecture bottles through EHS.

Fume Hoods – Fume Hoods shall be inspected annually so that a maximum average face velocity of 120 feet per minute, with minimum face velocity at any point not less than 80 feet per minute, is provided. (EHS to arrange for annual inspections)

Material Safety Data Sheets (MSDS) – Shall be maintained in accordance with "OSHA General Industry Standards – Hazard Communication" and be readily available to lab staff and emergency personnel.

STORAGE OF CHEMICALS

Storage of chemical amounts for use in individual laboratories – Please refer to the bottom of your lab's Fire Permit. Next to the lab room number there is a "Lab Type" followed by a Roman Numeral. Each lab or lab type has a maximum storage limit, refer to the following table for your lab's chemical storage limits:

Lab Type	Max. Flammable Liquids	Max. Flammable Solids	Max. Oxidizing Materials	Max. Unstable Reactives
I	30 gallons	15 pounds	50 pounds	12 pounds
II	25 gallons	10 pounds	40 pounds	6 pounds
III	20 gallons	6 pounds	30 pounds	3 pounds
IV	15 gallons	3 pounds	20 pounds	2 pounds

Corrosive Acids – Secondary containment or corrosive-resistant trays must be used in areas where corrosives are stored on or come in contact with metal shelving. Please call EHS to obtain secondary containment for acids.

Water-Reactives – Water-reactive chemicals shall be stored in suitable receptacles or enclosures, properly identified as to contents, to protect them from contact with water.

Temperature-Sensitive Flammable Liquids – Shall be stored only in approved explosion-proof or spark-proof refrigerators.

Disposal of old, surplus, unwanted, contaminated or unidentified chemicals Material which is in danger of decomposition or of changing characteristics so as to present a danger or explosion or fire, or which is unidentified, shall be promptly removed or disposed of through EHS.

Proper Chemical Segregation – Do not store flammables with oxidizers or keep flammables near ignition sources

SIGNS AND WARNING PLACARDS

No Smoking – Smoking is prohibited within laboratories. A sign shall be conspicuously posted at the exterior of entrances to storage and laboratory areas and within such areas.

Store No Flammables – Shall be posted on all non-explosion proof refrigerators (provided by EHS).

Laboratory – Potentially Hazardous Substances – Shall be posted on exterior entrances to laboratory areas (provided by EHS).