The following are the most common violations issued by the FDNY during annual laboratory inspections. Review these requirements, contact EHS with questions and be proactive in preventing violations by making changes as necessary.

### Flammable Chemical Storage in Laboratories

1. **Are flammable liquids (e.g., TEMED, Sigmacote and ethanol) stored only in flammable-proof or explosion-proof refrigerators, freezers, or cold rooms?** Fires and explosions have occurred when flammable vapors build up within a standard refrigerator, freezer or cold room and were ignited by the unit’s unprotected mechanical or electric components. Use only explosion-proof or flammable-proof refrigerators or cold rooms.

2. **Is the quantity of flammable liquids in the lab below the FDNY limits?** FDNY flammable liquid limits can be found on the Health and Safety Door Sign or by contacting EHS. The limits are based on the space’s ability (sprinklers, room size and storage cabinet) to contain a fire. Storage of flammable liquids above the maximum limit may result in a fire that spreads uncontrollably.

   - Type I = 30 gal, Type II = 25 gal, Type III = 20 gal and Type IV = 15 gal. Otherwise max limits will be specifically listed.

3. **Are all peroxide-forming chemical containers properly labeled and disposed of when expired?** Peroxide crystal formation may violently detonate when subjected to thermal or mechanical shock. All peroxide formers (e.g., diethyl ether and tetrahydrofuran) must be labeled with the “Date Received,” “Date Opened” and “Expiration Date.” All expired peroxide-former chemicals must be disposed.

### Compressed Gas Cylinder Safety

1. **Are all compressed-gas cylinders secured?** Secure all cylinders (in use or storage, full or empty) adequately with chains or straps to prevent them from falling or being knocked over.

2. **Are the following compressed-gas cylinder requirements maintained?**
   - Limit the number of oxygen and flammable gas cylinders in the lab.
   - Return old, unused cylinders to distributor.
   - Segregate incompatible gases and full and empty cylinders.
   - Ensure that all cylinders are properly marked with the name of contents.

### Means of Egress: Fire Hazards, Obstructions, Exit, and Exit Access

1. **Are combustible materials stored in a way that avoids fire/emergency egress hazards?** Do not store excessive combustible materials (e.g., trash, cardboard) in a way that creates a fire or emergency egress hazard.

2. **Are all corridors kept free of chemical storage?** All egress routes and corridors must be kept free of chemical storage and obstruction.

### Chemical and Material Storage Requirements

1. **Is all material storage maintained with at least 18” clearance of ceilings?** Material can be stored up to the sprinklered ceiling along the perimeter of the room as long as the front edge of the material has at least 18 inches’ clearance in all directions from the sprinkler head. Storage of materials within 18 inches of a sprinklered ceiling in the center of the room is not permitted.

2. **Are all bottles of chemicals or waste stored off the floor?** Bottles of chemicals or wastes stored on the floor create a spill and trip hazard which may cause an injury, exposure or a fire hazard.

3. **Are chemical containers labeled with contents?** All containers in the lab must be labeled with the container contents. The labels must be legible.

### Other FDNY Requirements:

1. **Is an FDNY Certificate of Fitness holder (CoF) for the Supervision of Chemical Laboratories (C-14) present at all times when a lab is in operation?** The FDNY requires that a C-14 CoF holder be present whenever a lab is in operation. Labs may require multiple C-14 holders.

2. **When is an oxygen monitor required?** The FDNY requires oxygen monitor to be installed in any area where dispensing and/or storing cryogenic liquids over the permit threshold (60 gallons or more for liquid nitrogen).

3. **What are the requirements for black-out curtains used in the lab?** The FDNY requires that all black-out curtains/drapes used in the laboratory must be inherently flame retardant and certified by an approved vendor. Contact EHS for assistance to obtain this certification.