

SUMMER 2022



## Small Changes = Big Impacts: Flammable Liquid Storage Code Review

The proper storage of flammable liquids is mandated by codes from multiple agencies, including the Occupational Safety & Health Administration (OSHA), U.S. Environmental Protection Agency (USEPA), National Fire Protection Association (NFPA), the International Building Code (IBC), and state-specific regulations. When making ANY changes to your existing flammable liquid storage, e.g., moving cabinets or tanks, it is imperative to start with a complete code review to make sure that the necessary precautions are being considered. This code review should cover:

- Flammable Liquid Classification (NFPA & OSHA). Double-check the liquids that you are storing to determine their proper classification. For example, the NFPA offers these classifications:
  - » Class 1A Liquid = Flashpoint below 73° F and Boiling Point below 100°F.
  - » Class 1B Liquid = Flashpoint below 73°F and Boiling Point above 100°F.
  - » Class 1C Liquid = Flashpoint at or above 73°, but below 100°F.
  - » Class 2 Liquid = Flashpoint between 100°F and 140°F.

- » Class 3A Liquid = Flashpoint between 140°F and 200°F.
- » Class 3B Liquid = Flashpoint at or above 200°F.
- Maximum Allowable Quantities (MAQ). Per the NFPA, quantities of flammable liquids are limited per control area as defined by NFPA 30 (Flammable and Combustible Liquids Code, Chapter 3 (Definitions), Section 3.2.1 (Control Area):

*Continued on next page. >*

### EXPERIENCE IN BRIEF

The federal rule for pre-paid Universal Waste (UW) containers (40 CFR 273.15) states that storage is allowed for one year once the first UW material (e.g., batteries, fluorescent bulbs, pesticides) enters a container. However, it is possible that these containers may not be filled within the allotted time. In such circumstances, it may be possible to continue to use the container past the one-year date...if it is done “solely for the purpose of accumulating quantities to facilitate proper recovery, treatment, or disposal.” Keep in mind, though, that proper documentation is essential! For more information, contact Hixson or [visit the USEPA website](#).

Liquid Class(es)	MAQ-Non-Sprinklered Space (Gallons)	MAQ-Sprinklered Space (Gallons)	MAQ-Sprinklered + Fire Cabinet (Gallons)
1A	30	60	120
1B & 1C	120	240	480
1A, 1B, 1C combined	120	240	480
2	120	240	480
3A	330	660	1,320
3B	13,200	26,400	52,800

Note that if any of these quantities are exceeded, the building becomes classified as a High-Hazard occupancy space, and additional safeguards must be provided. Some of these safeguards may include full sprinklers, spill containment, secondary containment of sprinkler water (depending on liquid types being stored), continuous ventilation, and deflagration control or prevention (depending on the presence of 1A in excess of the maximum amounts).

If your existing storage space will not meet code requirements, it may be time to consider new construction. In some cases, if properly designed, this may allow for unlimited storage of flammable liquids.

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