Sample - Flammable Liquid Storage Inspection Checklist (Page 1 of 2)

Disclaimer: The specific needs, practices, form of government and other operational procedures of your governmental entity may impact whether this example is appropriate for your use. PennPRIME recommends that you review the final product before using it, and adapt it as necessary.

DATE: INSPECTORS:	OK	NOT OK	NA	CORRECTIVE ACTION	Date Done/ Initials
FLAMMABLE STORAGE - GENERAL					
Flammable storage cabinets or ROOMS are identified in conspicuous lettering. Labeling should include warnings such as "Flammable - Keep Fire Away."					
Only flammable liquids are stored in flammable storage cabinets or ROOMS (no other liquids, tools, materials, etc.).					
Flammable liquids are only stored in approved containers and containers are kept tightly closed when not in use.					
Shelves are sturdy and adequately support the material being stored on them.					
Drums of flammable liquids inside flammable storage cabinets or ROOMS are bonded to the cabinet ground.					
Bonding cables are available for transferring flammables from primary containers to secondary containers.					
There is no evidence of open flames or smoking near flammable storage cabinets, ROOMS, or aboveground fuel tanks.					
Only 25 gallons or less of flammable liquids are stored outside of a flammable storage cabinet or flammable storage ROOM.					
ABOVEGROUND FUEL TANKS					
Aboveground fuel tanks are clearly identified with type of fuel, and labeled with appropriate DOT labels, based on contents.					
Aboveground fuel tanks are located such that they are protected from accidental vehicle contact, or are protected by appropriate barriers/barricades.					
Aboveground fuel tanks are either double wall construction, or are located w/in secondary containment.					
Fuel nozzles and hoses on aboveground fuel tanks are not damaged, degraded, or dry rotted.					
There is no evidence of significant or continual fuel leakage around the aboveground fuel tank.					
Fuel suppliers have been instructed to ensure that the fuel delivery truck is bonded to the aboveground fuel tank before transferring fuel to the tank.					
Emergency shut-off switch is functional, clearly labeled, and located away from, but within view of, the aboveground fuel tank.					
An appropriately sized spill kit and fire extinguisher are placed near the aboveground fuel tank.					

DATE: INSPECTORS:	OK	NOT OK	NA	CORRECTIVE ACTION	Date Done/ Initials
FLAMMABLE STORAGE CABINETS					
Flammable storage cabinets purchased or constructed must meet the requirements of NFPA 30: 4.3.3(b) and OSHA 29 CFR 1910.106 (d)(3)(ii)					
Less than 60 gallons of flammable liquids are stored in any one flammable storage cabinet.					
Flammable storage cabinets are properly grounded to a building or earth ground.					
The doors on flammable storage cabinets are in good repair and can fully close.					
A suitably sized dry chemical fire extinguisher (12-B units or higher) is located between 10 and 25 feet of the flammable storage cabinet.					
FLAMMABLE STORAGE ROOMS					
Flammable storage ROOMS are clearly marked.					
Flammable storage ROOMS are used only for storing flammable liquids (no other liquids, tools, materials, etc.).					
Flammable storage ROOMS have an approved self-closing fire door					
Openings to flammable storage ROOMS have noncombustible liquid-tight raised sills or ramps at least 4 inches in height to prevent spills from leaving the room.					
Walls are liquid-tight where the walls join the floor and all wall penetrations are sealed.					
The flammable storage ROOM does not exceed the maximum allowable size (500 sq. ft. for a 2-hr rated room, 150 sq. ft. for a 1-hr rated room).					
The flammable storage ROOM does not exceed the maximum allowable storage density (5 gal/sq. ft. for 2-hr rated room, 2 gal/sq. ft. for 1-hr rated room).					
Electrical wiring, enclosures, and equipment (including ventilation equipment) inside the flammable storage ROOM is approved for Class I, Division 2 hazardous locations.					
The flammable storage ROOM's ventilation system is capable of at least six air changes per hour.					
The ventilation switch is tied to the light switch, has a pilot light, and is located outside the flammable storage ROOM near the entrance.					
Containers are stored such that a 3-foot wide aisle is maintained.					
A suitably sized dry chemical fire extinguisher (12-B units or higher) is located within 10 feet of the entrance to the flammable storage ROOM.					

Flammable Liquid Storage Guidance

Most workshops and garages have flammable liquids that are used on a regular basis as part of the operation. While necessary, these liquids can also be dangerous if not used and stored correctly. Proper storage of flammable liquids is not difficult, as long as the storage requirements are understood and followed. For clarification, *flammable liquid* means any liquid having a *flashpoint* at or below 199.4 °F (93 °C). This information can be found on the Safety Data Sheet (SDS) or label. The guidelines below represent the minimum requirements for flammable storage.

Containers - Flammable liquids can be purchased in drums, cans, plastic bottles, aerosol cans, etc. It is important that the information on the original container label is kept legible and is read and followed. In many cases, flammable liquids can be transferred from the original container into smaller, or secondary, containers. The secondary containers must be made of a material that will not be affected by the liquid, and should not be easily damaged or broken (no glass). The secondary container must be labeled with the name of the material, and the hazards associated with the material. Damaged containers must not be used and must be properly discarded.

Flammable Storage Cabinets - Specially designed cabinets are used when storing flammable liquids. These cabinets are designed to keep the contents from quickly heating during a fire, allowing more time to evacuate or contain/ extinguish a fire. Each cabinet can contain up to a maximum of 60 gallons of flammable liquids. If the facility has more than 60 gallons of flammable liquids in containers, then multiple cabinets are required. If the facility has a significant amount of flammable liquids, a flammable storage room may be a better option than multiple cabinets.

Note 1: Flammable Storage Cabinet Construction Specifications - established by the National Fire Protection Association (NFPA).
Metal cabinets constructed in the following manner shall be deemed to be in compliance. The bottom, top, door, and sides of cabinet shall be at least No. 18 gage sheet iron and double walled with 1 1/2 - inch air space. Joints shall be riveted, welded or made tight by some equally effective means. The door shall be provided with a three-point lock, and the door sill shall be raised at least 2 inches above the bottom of the cabinet. Wooden cabinets constructed in the following manner shall be deemed in compliance. The bottom, sides, and top shall be constructed of an approved grade of plywood at least 1 inch in thickness, which shall not break down or delaminate under fire conditions. All joints shall be rabbeted and shall be fastened in two directions with flathead woodscrews. When more than one door is used, there shall be a rabbeted overlap of not less than 1 inch. Hinges shall be mounted in such a manner as not to lose their holding capacity due to loosening or burning out of the screws when subjected to the fire test (OSHA 29 CFR 1910.106 (d)(3)(ii)(a & b) and NFPA 30-2009: 4.3.3(b & c)).

Flammable Storage Rooms - When large quantities of flammable liquids need to be stored, a specially designed flammable storage room can be used. Flammable storage rooms essentially act as very large flammable storage cabinets. They are designed to contain and spilled materials, and to keep the contents of the room from being exposed to open flame or heating up to quickly from a fire. In addition to being of sturdy construction, the room must be liquid and vapor-tight. The door is raised slightly to prevent liquids from leaking out under it, and any holes in the walls are sealed to prevent vapors from escaping. The contents of the room must also be protected from sources of ignition. This means protection from flames as well as sparks. Sparks can be generated from regular electrical switches and equipment, so all switches and electrical equipment in the room must be specially designed for flammable areas. Flammable storage rooms should also have a reliable building ground or earth ground that is easily accessible, with an adequate number of grounding and bonding cables available for transferring liquids.

Flammable Liquid Storage Guidance (continued)

Specially Designed Aboveground Fuel Storage Tanks. Keeping the tanks and fuel dispensing equipment in proper working order is important not only to ensure the safety of employees, but also to protect against unnecessary fuel spills and costly cleanup. The fuel delivery service that fills the tanks should be informed of the requirement to ensure that the delivery truck and the aboveground fuel tank is bonded, and all minor spills are immediately cleaned up. The tanks, hose, and dispending nozzle should be kept in good working order. A portable fire extinguisher (at least 10 pound ABC) should be located close to the dispensing area of the tank. A suitably sized fuel spill clean-up kit should also be readily available in case of a spill. This kit must be inspected on a regular basis to ensure that it is complete, and that the material in the kit is not expired, damaged, or missing. Note: Any aboveground fuel tank greater than 1100 gallons is regulated by the PADEP under the 25 PA Code, Chapter 245.

Transferring Flammable Liquids - When transferring flammable liquids from one container to another, the movement of the liquid can create a static charge, regardless of the material of the containers. This charge can result in a spark if the two containers come into contact, potentially causing the liquid to catch on fire or an explosion. To prevent a static charge from being created, the two containers must be connected together with a bonding wire a clips before the liquid is poured. The primary container should also be connected to a building ground (metal structure or water pipe) or an earth ground (a copper bar driven several feet into the ground) to prevent an electrical charge from accumulating.