

FLAMMABLE AND COMBUSTIBLE LIQUIDS

1.0 PURPOSE

The purpose of this chapter is to establish requirements for the proper storage, transfer, and final use of flammable and combustible liquids used by City of Wilson employees.

2.0 ORGANIZATIONS AFFECTED

This policy applies to all City departments who's employees and contractors use flammable liquids as part of their job tasks.

3.0 DEFINITIONS

3.1 **"CLOSED CONTAINER"** shall mean a container as herein defined, so sealed by means of a lid or other device that neither liquid nor vapor will escape from it at ordinary temperatures.

3.2 **"COMBUSTIBLE LIQUID"** means any liquid having a flashpoint at or above 100 deg. F. (37.8 deg. C.) Combustible liquids shall be divided into two classes as follows:

3.2.1 **"Class II liquids"** shall include those with flashpoints at or above 100 deg. F. (37.8 deg. C.) and below 140 deg. F. (60 deg. C.), except any mixture having components with flashpoints of 200 deg. F. (93.3 deg. C.) or higher, the volume of which make up 99 percent or more of the total volume of the mixture.

3.2.2 **"Class III liquids"** shall include those with flashpoints at or above 140 deg. F. (60 deg. C.) Class III liquids are subdivided into two subclasses:

3.2.2.1 **"Class III A liquids"** shall include those with flashpoints at or above 140 deg. F. (60 deg. C.) and below 200 deg. F. (93.3 deg. C.), except any mixture having components with flashpoints of 200 deg. F. (93.3 deg. C.), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

3.2.2.2 **"Class III B liquids"** shall include those with flashpoints at or above 200 deg. F. (93.3 deg. C.). This section does not cover Class IIIB liquids. Where the term "Class III liquids" is used in this section, it shall mean only Class IIIA liquids.

3.2.2.3 When a combustible liquid is heated for use to within 30 deg. F. (16.7 deg. C.) of its flashpoint, it shall be handled in accordance with the requirements for the next lower class of liquids.

- 3.3 **"FLAMMABLE LIQUID"** means any liquid having a flashpoint below 100 deg. F. (37.8 deg. C.), except any mixture having components with flashpoints of 100 deg. F. (37.8 deg. C.) or higher, the total of which make up 99 percent or more of the total volume of the mixture. Flammable liquids shall be known as Class I liquids. Class I liquids are divided into three classes as follows:
- 3.3.1 **Class IA** shall include liquids having flashpoints below 73 deg. F. (22.8 deg. C.) and having a boiling point below 100 deg. F. (37.8 deg. C.).
 - 3.3.2 **Class IB** shall include liquids having flashpoints below 73 deg. F. (22.8 deg. C.) and having a boiling point at or above 100 deg. F. (37.8 deg. C.).
 - 3.3.3 **Class IC** shall include liquids having flashpoints at or above 73 deg. F. (22.8 deg. C.) and below 100 deg. F. (37.8 deg. C.).
- 3.4 **"FLASHPOINT"** means the minimum temperature at which a liquid gives off vapor within a test vessel in sufficient concentration to form an ignitable mixture with air near the surface of the liquid.
- 3.5 **"SAFETY CAN"** shall mean an approved container, of not more than 5 gallons capacity, having a spring-closing lid and spout cover and so designed that it will safely relieve internal pressure when subjected to fire exposure.

4.0 **GENERAL REQUIREMENTS**

- 4.1 Only approved containers and portable tanks will be used for storage and handling of flammable liquids. Approved metal safety cans will be used for the handling and use of flammable liquids in quantities greater than one gallon, except when applied to those that are highly viscous (extremely hard to pour), which may be used and handled in original shipping containers. For quantities of one gallon or less, only the original container or approved metal safety cans will be used for storage, use, and handling of flammable liquids.
- 4.2 Flammable or combustible liquids will not be stored in areas used for exits, stairways, or normally used for the safe passage of people.
- 4.3 All flammable and combustible containers will be labeled with the name of the liquid and hazard warning.
- 4.4 All flammable and combustible containers and tanks will be protected against collision.

5.0 **INSIDE STORAGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS**

- 5.1 No more than 25 gallons will be stored in a room outside of an approved storage cabinet.
- 5.2 Cabinets will be labeled in conspicuous lettering "Flammable - Keep Fire Away".

- 5.3 Not more than 60 gallons of flammable or 120 gallons of combustible liquids will be stored in any one storage cabinet. Not more than three such cabinets may be located in a single-storage area. Quantities in excess of this shall be stored in an approved inside storage room.
- 5.4 Electrical wiring and equipment located in inside storage rooms shall be approved for Class I, Division 1, Hazardous Locations.
- 5.5 Every inside storage room shall be provided with either a gravity or a mechanical exhaust ventilation system. Such system shall be designed to provide for a complete change of air within the room at least six times per hour. If a mechanical exhaust system is used, it shall be controlled by a switch located outside of the door. The ventilating equipment and any lighting fixtures shall be operated by the same switch. A pilot light shall be installed adjacent to the switch if Class I flammable liquids are dispensed within the room. Where gravity ventilation is provided, the fresh air intake, as well as the exhaust outlet from the room, shall be on the exterior of the building in which the room is located.
- 5.6 Flammable and combustible liquid containers shall be in accordance with Table H-12.

TABLE H-12 - MAXIMUM ALLOWABLE SIZE OF CONTAINERS AND PORTABLE TANKS

Container type	<u>Flammable liquids</u>			<u>Combustible liquids</u>	
	Class	Class	Class	Class	Class
	IA	IB	IC	II	III
Glass or approved plastic.....	1 pt	1 qt	1 gal	1 gal	1 gal.
Metal (other than DOT drums)....	1 gal	5 gal	5 gal	5 gal	5 gal.
Safety cans.....	2 gal	5 gal	5 gal	5 gal	5 gal.
Metal drums (DOT specifications).	60 gal	60 gal	60 gal	60 gal	60 gal.
Approved portable tanks.....	660 gal	660 gal	660 gal	660 gal	660 gal.

NOTE: Container exemptions: [a] Medicines, beverages, foodstuffs, cosmetics, and other common consumer items, when packaged according to commonly accepted practices, shall be exempt from the requirements of 1910.106(d)(2)(i) and (ii).

6.0 HANDLING LIQUIDS AT POINT OF FINAL USE

- 6.1 Flammable liquids will be kept in closed containers when not actually in use.
- 6.2 Leakage or spillage of flammable or combustible liquids will be disposed of promptly and safely.
- 6.3 Flammable liquids may be used only where there are no open flames or other sources of ignition within 50 feet of the operation, unless conditions warrant greater clearance.