

<b>DPD</b>  <b>SFD</b>	<b>Joint Ruling</b>  <b>DPD Director's Rule 8-2005</b> <b>SFD Administrative Rule 34.01.04</b>
------------------------------	---------------------------------------------------------------------------------------------------------

<b>Applicant:</b> CITY OF SEATTLE Department of Planning and Development Seattle Fire Department	<b>Page</b> 1 of 3	<b>Supersedes:</b> DPD DR 8-98
	<b>Publication:</b> 1/6/05	<b>Effective:</b> 2/15/05
<b>Subject:</b>  Use Of Protected Aboveground Tanks For Fuel Storage Inside Buildings	<b>Code and Section Reference:</b> 2003 Seattle Building Code Sec 307, 4142003 Seattle Fire Code Ch. 27, 34 NFPA 30 Section 2.2.5.2	
	<b>Type of Rule:</b> Code Interpretation	
	<b>Ordinance Authority:</b> SMC 3.06.040	
	<b>Approved</b> (signature on file) John H. Nelsen, Fire Marshal, SFD	<b>Date</b> 2/9/05
<b>Index:</b> Building Code	<b>Approved</b> (signature on file) Diane M. Sugimura, Director, DPD	<b>Date</b> 2/12/05

### BACKGROUND AND PURPOSE

Seattle Building and Fire Codes require that fuel storage inside buildings in quantities exceeding the maximum allowable quantities established by Seattle Building Code (SBC) Table 307.7(1) and Seattle Fire Code (SFC) Table 2703.1.1(1) must comply with the requirements of SBC Section 307.5 for High Hazard Group H-3 occupancies and SFC Section 3404.3.7 for liquid storage rooms. The purpose of this rule is to provide an alternative storage method for combustible liquids used in closed systems to fuel equipment, such as emergency generators and fire pumps, without having to meet liquid storage room requirements.

## DEFINITIONS

**CLOSED SYSTEM:** The use of a solid or liquid hazardous material involving a closed vessel or system that remains closed during normal operations where vapors emitted by the product are not liberated outside of the vessel or system and the product is not exposed to the atmosphere during normal operation; and all uses of compressed gases. Examples of closed systems for solids and liquids include product conveyed through a piping system into a closed vessel, system or piece of equipment.

**COMBUSTIBLE LIQUID:** A liquid having a closed cup flash point at or above 100°F. Combustible liquids shall be subdivided as follows:

Class II. Liquids having a closed cup flash point at or above 100°F (38°C) and below 140°F (60°C).

Class III-A. Liquids having a closed cup flash point at or above 140°F (60°C) and below 200°F (93°C).

Class III-B. Liquids having a closed cup flash point at or above 200°F (93°C).

**PROTECTED ABOVE GROUND TANK:** A tank listed in accordance with UL 2085 consisting of a primary tank provided with protection from physical damage and fire-resistive protection from a high-intensity liquid pool fire exposure. The tank may provide protection elements as a unit or may be an assembly of components, or a combination thereof.

## APPLICABILITY

This Rule applies to combustible liquids stored in approved protected aboveground tanks inside buildings.

## RULE

When combustible liquids are used in closed systems for fueling equipment such as emergency or standby generators and fire pumps, the requirements of Seattle Building Code Section 307.5 for High Hazard Group H -3 occupancy and Seattle Fire Code (SFC) Section 3404.3.7 for liquid storage rooms may be waived provided all of the following conditions are met:

1. The combustible liquids shall be stored only in approved protected above ground tanks installed in accordance with SFC Section 3404.2.9.6 and all other applicable requirements SFC Chapter 34 for installation of tank systems except as modified by this rule.

2. In Groups A, B, E, I, M, and R occupancies, aboveground tanks storing combustible liquids shall be located in accessory use areas such as parking garages, storage, boiler and mechanical rooms, maintenance shops, and rooftop locations.
3. Individual tank capacities shall not exceed 3,000 gallons.
4. The aggregate capacity of tanks for storage of combustible liquids in approved protected aboveground tanks enclosed by a one-hour fire barrier shall not exceed 6,000 gallons.
5. The room where the tank(s) is located shall be protected by an approved automatic sprinkler system.
6. Filling, emptying and vapor recovery connections to tanks containing Class II or III liquids shall be located outside of buildings at a location free from sources of ignition and not less than 5 feet away from building openings or lot lines of property that can be built on. Such tank openings shall be provided with a liquid-tight cap that shall be closed when not in use and shall be properly identified. Note: The fire code official may approve distances to building openings and property lines less than 5 feet when a practical difficulty exists due to site constraints.
7. Emergency relief venting shall be provided in accordance with SFC Section 3404.2.7.4 except that emergency relief vents may discharge inside a building. Emergency relief vents which discharge to the outside shall be designed to provide the venting capacity required by Section 2.2.5.2 of NFPA 30. The vent capacity reduction factor shall not be allowed.
8. One or more portable fire extinguishers having a rating of not less than 20-B shall be located not less than 10 feet nor more than 50 feet from the tank storage area.

## **FIRE DEPARTMENT PERMITS**

Fire Department permits are required to store, handle or use Class II or Class III-A combustible liquids in excess of 25 gallons inside a building or Class III-B liquids in excess of 1,000 gallons. Call 386-1025 for permit application and information.