

KENTFIELD FIRE PROTECTION DISTRICT



Developed by

Jim Galli, Battalion Chief

Approved by

Paul Smith, Fire Chief

Fire Protection Standard 516A

Separations for Welding Operations in Repair Garages

Date: 1-1-04

Revision: _____

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This standard has been developed pursuant to Article 29 of the Uniform Fire Code as adopted by ordinance by the Kentfield Fire Protection District. It is intended that this standard be used as a guide for establishing a reasonable degree of fire and life safety in repair garages where welding, torches and other related equipment are necessary to the operation of the business.

A. General

1. A Fire District permit is required before any welding, cutting, grinding or use of other similar open flame or spark producing appliances and equipment may be used in any repair garage. The permit application and filing fee shall be submitted to the Fire Loss Management Division for processing.
2. Before cutting or welding is permitted, a designated welding/cutting area shall be approved by the Fire Loss Management Division.

B. Separations

1. The designated area shall comply with the following:
 - a. Operations involving open flame or electric arcs, including fusion gas and/or electric welding, shall be restricted to the area specified for such purposes.
 - b. A clearly visible and durable sign shall be posted in the designated area stating, "CAUTION! CUTTING AND WELDING AREA. KEEP FLAMMABLES AWAY!" The sign shall have letters at least 3" high with a $\frac{3}{4}$ " stroke; red on a white background. Additional signs may be required at the discretion of the Fire Marshal.
 - c. The designated area shall be free of explosive atmospheres such as mixtures of flammable gases, vapors, liquids, or dusts with air or explosive atmospheres that may develop inside uncleaned or improperly repaired drums, tanks or other containers and equipment which have previously contained such materials.
 - d. The cutting or welding area shall be separated from the areas containing flammable atmospheres, as shown in table 516A-I.

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Table 516A-I

<u>Flash Points of Liquids of</u>	<u>Required Distance from Designated Area (in feet)</u>		
	<u>With Full Partition Wall</u>	<u>With 4' High Partition Wall</u>	<u>With No Wall</u>
100° F or below	0	25	50
100° F but below 200°	0	10	25
200° F	0	5	10

Note: 1. The partition wall shall consist of a 2X4 stud with at least one layer of ½5/8” gypsum board on each side, fire taped and structurally stable.

2. The 4’ high partition may only be used if the vapor density of the flammable liquid is 2.0 or greater.

e. In addition to the separation distances required in Table 516A-I, exhaust ventilation shall be provided in the areas where flammable liquids are used, sufficient to produce four complete air changes per hour. Such exhaust ventilation shall be taken from a point at or near the floor level.

C. Repair of Fuel Tanks

1. Prior to repair work on fuel tanks of vehicles involving flame or heat producing devices, the tank shall be drained and purged, or inverted, and tested in accordance with procedures outlined in NFPA Standard No. 327, Standard Procedures for Cleaning or Safeguarding Small Tanks and Containers.
2. In lieu of draining the fuel tank outside the building, an approved portable pump and storage tank may be used.
3. Fuel which is drained from vehicle tanks and is not to be disposed of shall be stored in listed safety cans or returned to standard underground storage tanks.
4. Fuel which is to be disposed of shall be stored in listed tanks or safety cans suitable for such purpose which shall be located outside the building until removal from the premises. Such containers shall be identified as having flammable contents.
5. Repair work on compressed and liquefied gas fuel tanks shall be performed only by

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a qualified cylinder tank manufacturer in accordance with the U. S. Department of Transportation regulations.

6. All cutting and welding repair work of fuel tanks shall be conducted in the designated cutting or welding area.

D. Statement of Responsibility

1. The business owner or business management shall conspicuously post in the designated cutting or welding area a signed statement of responsibility. Refer to Fire Prevention Standard No. 516B