



# Fire Department

## HEADQUARTERS

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## CODE SUMMARY

### PERMITS – CUTTING AND WELDING (HOT WORK)

A code summary is a compilation of code sections related to a specific occupancy or permit. This code summary lists sections of code pertaining to occupancies and operations as defined by the **California Fire Code**. Under each heading you will find the correlating code language and the reference cited. These requirements pertain to existing buildings. New construction may be subject to additional requirements. Please feel free to direct any questions to the Fire Prevention Division at (805) 681-5500.

#### SCOPE:

**HOT WORK:** Operations including cutting, welding, Thermit welding, brazing, soldering, grinding, thermal spraying, thawing pipe, installation of torch-applied roof systems or any other similar activity.

**HOT WORK AREA:** The area exposed to sparks, hot slag, radiant heat, or convective heat as a result of the hot work.

**HOT WORK EQUIPMENT:** Electric welding, grinding, gas welding or cutting equipment used for hot work.

**FIRE WATCH:** For the purpose of this permit the operator of the vehicle and/or person performing the Hot-Work is the designated Fire Watch. This person shall have fire-extinguishing equipment readily available and shall be trained in the use of such equipment. Individuals assigned to fire watch duty shall be responsible for extinguishing spot fires and communicating an alarm.

**WHEN REQUIRED:** A fire watch shall be provided during hot works activities and shall continue for a minimum of 30 minutes after the conclusion of the work.

**Exception:** Where the hot work area has no fire hazards of combustible exposure.

**LOCATION:** The fire watch shall include the entire hot work area. Hot work conducted in areas with vertical or horizontal fire exposures that are not observable by a single individual shall have additional personnel assigned to fire watches to ensure that exposed area are monitored.

#### Pre-hot work check.

**A pre-work check shall be conducted prior to the work to ensure that all equipment is safe and hazards are recognized and protected. A report of the check shall be kept at the work site during the work and available upon request. The pre-hot work check shall determine all of the following:**

1. Hot work equipment to be used shall be in satisfactory operating condition and in good repair.
2. Hot work site is clear of combustible materials or combustibles are protected.
3. Exposed construction is of noncombustible materials or, if combustible, then protected.
4. Openings are protected.
5. Floors are kept clean.
6. No exposed combustibles are located on the opposite side of partitions, walls, ceilings, or floors.
7. Fire watches, where required, are assigned.
8. Approved actions have been taken to prevent accidental activation of suppression and detection equipment.
9. Fire extinguishers and fire hoses (where provided) are operable and available.  
(UFC 3504.3.1)

**1. A permit is required to conduct hot work.**

Hot work permits, issued by an approved responsible person under a hot work program, shall be available for review by the fire code official at the time the work is conducted and for 48 hours after work is completed. (CFC 3501.2)

**2. A minimum of at least one 2A 20BC fire extinguisher with current service tag is required on site.**

At least one 2A-20BC fire extinguisher shall be readily available at all times. Fire extinguisher must have a current tag showing service within the last year. (CFC 3504.2.6)

**3. A minimum of at least one backpack pump water-type fire extinguisher is required on site.**

At least one backpack pump water-type fire extinguisher fully equipped, shall be readily available at all times

**4. A round-point shovel with an overall length not less than 46 inches is required on site.**

**5. Spark arresters are required.**

Spark arresters (must be approved by the United States Forest Service) are required on any internal combustion engine which uses hydrocarbon fuels. Engines used to provide motive power for trucks, truck tractors, buses and passenger vehicles, except motorcycles are not required to have a spark arrester if the exhaust system is equipped with a muffler as defined in the Vehicle Code. Turbocharged engines are not required to have a spark arrester if all exhausted gases pass through the rotating turbine wheel, there is no exhaust bypass to the atmosphere, and the turbocharger is in effective mechanical condition.

**6. Damaged electric welder cables shall be removed from service until properly repaired or replaced.**  
(CFC 3506.5)

**7. Gas cylinders must be adequately secured from dislodgment in the valve end up position.** (CFC 5304.1)

**8. Gas cylinders not in use must have valve protection caps and or plugs in place.** (CFC 5303.6.1)

**9. Gas cylinder valves shall be accessible, suitable for the use intended and shall not be altered**

**10. Gas cylinders, valves, regulators, hose and other apparatus and fittings for oxygen shall be kept free from oil or grease.** (CFC 3505.3)

**11. Hoses shall not show signs of any leaks, burns, wear, loose connections or other defects rendering the hose unfit for service.** (CFC 3509.7)

**12. Vehicle should be operable and have a valid current registration in the vehicle.**

**NOTE: PUBLIC RESOURCE CODE 4427 REQUIRES CLEARING AWAY ALL FLAMMABLE MATERIAL, INCLUDING SNAGS 10 FEET FROM THE AREA ON FOREST, RANGE AND FORAGE LANDS.**