



COALINGA FIRE DEPARTMENT

GREG DUPUIS, FIRE CHIEF

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CITY OF COALINGA FIRE DEPARTMENT		
FIRE PREVENTION STANDARD		
STANDARD TITLE:	405.008 FIRE PUMP INSTALLATION LOCATIONS	
STANDARD NUMBER: 405.008	EFFECTIVE DATE: October 26, 2022	REVISION DATE: October 26, 2022

PURPOSE

This policy has been established to provide direction for acceptable installation requirements which address the following items: vandalism, fire exposure, environmental exposure, and pump access for firefighting personnel.

Design professionals should familiarize themselves with this policy as it also addresses acceptable fire pump installation locations, and when followed, may reduce plan review time.

APPLICATION

This policy clarifies the Coalinga Fire Department's (CFD or Department) requirements for the location of fire pumps inside buildings (pump rooms), detached pump houses, or exterior installations.

OPERATIONAL POLICY

BACKGROUND

This policy is based on the requirements found in the California Fire Code (CFC), and National Fire Protection Association (NFPA) 20, Standard for the Installation of Centrifugal Fire Pumps, as well as the practical experience of the Department with fire pump installations.

REQUIREMENTS

1. Fire pumps will be located in an enclosed pump room within a building, or a detached/attached fire pump house directly adjacent to the building(s) served by the pump. The fire pump enclosure may be of any type of construction permitted for the protected premises as found in the currently adopted California Building Code (CBC). A building permit is required for a fire pump room.
2. The fire pump room or house will have a minimum ceiling height of seven (7') feet. The room will be sized to provide a minimum of three (3') feet of working



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space adjacent to the fire pump, fire pump controller, and all associated equipment. Access to all fire pump equipment is required to be unencumbered. Exiting will comply with the currently adopted CBC. A minimum door width of four (4') feet or double doors which together measure four (4') feet or wider may be installed.

3. The fire pump room or house must be separated from the protected building by a minimum of one-hour, fire-resistance rated construction. A two-hour fire resistance rated separation is required for high-rise building installation.
4. Cables used for survivability of circuit supplying fire pumps will be listed in accordance with UL 2196.
5. Fire pumps will be located in a dedicated fire pump room. Equipment related to domestic water distribution (pumps) may be permitted within the fire pump room at the discretion of the Fire Marshal, or designee. No other electrical, mechanical, or fuel-fired equipment is permitted.
6. A fire pump room will have a door leading directly to the exterior of the building or be readily accessible through a fire-resistance rated corridor or passageway. Retrofit fire pump installations may use alternate, equivalent designs which are approved by the Fire Marshal, or designee.
7. Fire pump rooms or houses will have approved fire sprinkler protection.
8. Approved lighting and fixed emergency lighting will be provided.
9. The floor of a fire pump room or house will be sloped to a floor drain piped to the exterior of the building.
10. Means will be provided to maintain a minimum temperature of 40 degrees Fahrenheit.
11. Means will be provided for ventilation of the fire pump room or house to inhibit condensation.



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Note: For diesel fire pumps, consult NFPA 20 for ventilation and combustion air requirements.

12. An approved lock box with keys to access to the fire pump room or house will be provided at an approved location.
13. Means will be provided within the fire pump room or house to test fire pump pressure switch settings by a valve with a pressure gauge installed on the discharge side of the fire pump, after the check valve piped to drain.
14. No storage is permitted in a fire pump room or house.
15. A minimum 2A:10B:C portable fire extinguisher for each electric fire pump, or a minimum 4A:40B:C extinguisher for each diesel fire pump installation, will be maintained within the fire pump room or house.
16. Where required by the Fire Marshal (or designee) a remote annunciator may be required to be installed to facilitate testing of various fire pump features which must be supervised by the fire alarm system.
17. While not recommended due to long-term maintenance issues, Underwriters Laboratory (UL)/Factory Mutual (FM) fire pumps and controllers listed for exterior use may be installed subject to the following restrictions:
 - a. The installation will be located a minimum of 50 feet from all buildings, exterior storage, or other fire exposures.
 - b. A metal canopy will be provided over the pump and controller which extends a minimum of five (5') feet beyond all portions of the equipment, with a minimum clear height of seven (7') feet above grade.
 - c. A concrete pad extending to the perimeter of the canopy will be provided.



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- d. Bollard protection will be provided where the installation is subject to routine vehicular traffic.
- e. The canopy will be fenced to a minimum height of six (6') feet and be provided with a minimum four (4') foot wide gate with Coalinga Fire padlock installed in series with the owner's padlock.
- f. All pressure-sensing lines and other related pipe two (2") inches or less in diameter will be insulated or provided with UL/FM fire protection listed heat tape.
- g. Aboveground steel pipe will be galvanized or primed and painted.

Fire sprinklers may be required by the Fire Marshal (or designee) for exterior installations.

OPERATIONAL GUIDELINE

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PROCESS

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INFORMATION

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DEFINITIONS

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CROSS REFERENCES

California Fire Code, Current edition

National Fire Protection Association

Standard 20, Standard for the Installation of Centrifugal Fire Pumps

California Building Code, Current edition