Sacramento Metropolitan Fire District
Community Risk Reduction Division

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KURT P. HENKE
Fire Chief

SACRAMENTO METROPOLITAN FIRE DISTRICT					
FIRE PREVENTION STANDARD					
STANDARD TITLE:	**Rural Fire Flow**				
STANDARD NUMBER:	14	EFFECTIVE DATE:	04/10/08	REVISION DATE:	07/02/12

OBJECTIVE

To establish the minimum water supply necessary for structural firefighting purposes in those areas where it has been determined that there is no public water supply or inadequate water for firefighting. The standard applies to new development that is beyond 3,000 feet of any existing adequately sized water system. The methods used for determining the design and installation of water supply systems shall be in accordance with this standard, the 2001 edition of NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting* and the 2003 edition of NFPA 22, *Standard for Water Tanks for Private Fire Protection.*

PROCEDURE

I. Commercial Occupancies

A. All structures, regardless of size, shall be equipped with an automatic fire sprinkler system designed and installed in accordance with the 2002 edition of NFPA 13, *Standard for the Installation of Sprinkler Systems*.

B. A storage tank, designed and installed in accordance with the 2003 edition of NFPA 22, *Standard for Water Tanks for Private Fire Protection* and this standard, shall be provided. The tank shall be sized to contain the minimum sprinkler demand in accordance with the 2002 edition of NFPA 13, *Standard for the Installation of Sprinkler Systems* plus 20,000 gallons.

C. A draft (dry) fire hydrant capable of delivering 1,000 gallons per minute at draft shall be designed and installed in accordance with the 2001 edition of NFPA 1142, *Standard on Water Supplies for Suburban and Rural Fire Fighting* and the following specific requirements:

1. The supply piping shall be a minimum of 6 inches in diameter.

2. The suction hose connection shall be 4½-inch male National Standard Threads with a protective cap. The connection and protective cap shall be of materials that minimize rust and galvanic corrosion. The body of the draft hydrant shall be painted Rustoleum White or equal.

3. The face of the suction hose connection shall be 8 feet from the fire apparatus access lane. There shall be a minimum of 20 feet of clear, unobstructed space along the fire access lane on each side of the draft hydrant.

4. The center of the suction hose connection shall be between 24 and 36 inches above finished grade.

5. The underground piping installation shall be in accordance with the 2002 edition of NFPA 24, *Standard for the Installation of Private Fire Service Mains and Their Appurtenances* and Fire Prevention Standard 9, *Installation of Private Fire Service Mains.*

6. An indicating control valve shall be installed on all draft fire hydrants supplied by an above ground storage tank.

7. The suction hose connection and indicating control valve may be installed directly on the storage tank.

D. A hard suction hose shall be provided in a permanently mounted, all-weather enclosure at the draft hydrant. The enclosure shall be identified in 3-inch contrasting letters stating "Hard Suction Hose". The hose shall be 10 feet long with a 6-inch National Standard Thread, long handled female coupling on one end and a 6-inch National Standard Thread, rocker lug male coupling on the other.

E. There shall be two separate discharge pipes from the storage tank. One sized to supply the fire pump for the automatic fire sprinkler system and one sized to supply the draft hydrant. The discharge piping shall be installed as remotely as possible within the tank

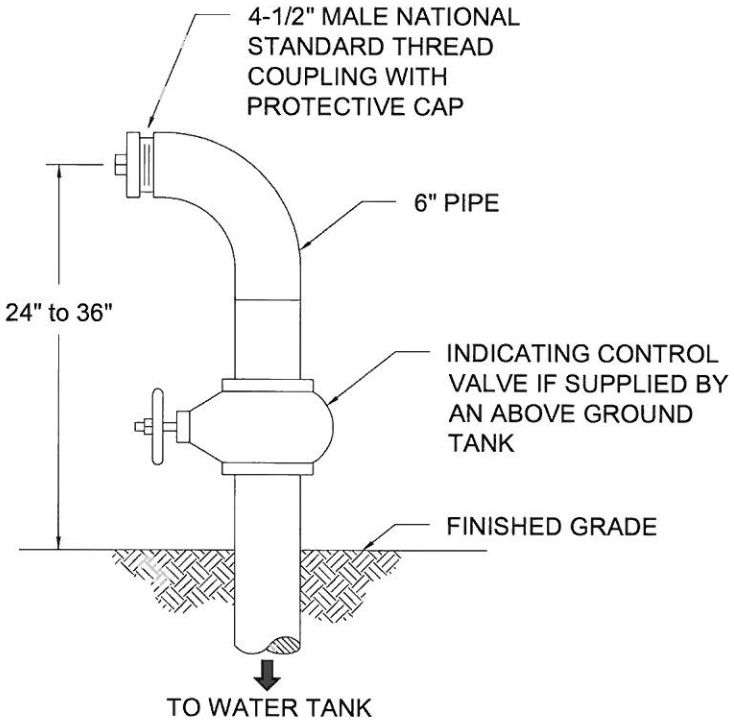
F. The water-level gauge for the storage tank shall be visible from the draft fire hydrant.

G. When public water becomes available at the property line, connection to the system will be required. Hydrants shall be installed in accordance with the current California Fire Code.

II. Residential Occupancies

A. All one- and two- family dwellings and manufactured homes shall be equipped with an automatic fire sprinkler system designed and installed in accordance with the 2002 edition of NFPA 13D, *Standard for the Installation*

of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes and Sacramento County Fire Marshal's Standard #2.

Ray Iverson, AC/Fire Marshal

DRAFT (DRY) HYDRANT DETAIL