



COALINGA FIRE DEPARTMENT

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CITY OF COALINGA FIRE DEPARTMENT		
FIRE PREVENTION STANDARD		
STANDARD TITLE:	405.018 SPRINKLER PIPING LESS THAN ONE INCH IN DIAMETER	
STANDARD NUMBER: 405.018	EFFECTIVE DATE: October 26, 2022	REVISION DATE: October 26, 2022

PURPOSE

The purpose of this policy is to clarify the Fresno Fire Department's (FFD or Department) requirements for existing fire sprinkler system piping which is less than one (1") inch in diameter.

APPLICATION

This policy applies to all fire sprinkler systems within the City of Fresno and contract service areas. These requirements apply to both required and voluntary systems.

OPERATIONAL POLICY

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OPERATIONAL GUIDELINE

At one time, three-fourths (3/4) inch diameter piping was considered acceptable to serve a single, fire sprinkler head. Although this smaller diameter pipe loses three (3) pounds of pressure per square inch (psi) over ten (10') feet of run of pipe for a light hazard application (0.76 psi for 1-inch pipe), there is no need to replace three-fourths (3/4) inch pipe that has not had its cross-sectional flow area reduced.

After a fire sprinkler system reaches fifty (50) years of age (and coinciding with the systems normal 5-year test), all three-fourths (3/4) inch sprinkler pipe within a system must be detached and inspected to determine if its cross-sectional flow area has been reduced by corrosion, scale, etc.

Based upon the need for uniformity in application across the Department's service delivery area, the Department has determined that during required inspections, contractor's inspecting these systems must complete the following:

1. If the three-fourths (3/4) inch pipe is at the highest elevation of an upward sloping branch line, the contractor must remove and inspect one (1) of every ten (10) sprinkler system branch lines. If corrosion or other concerns are noted in more than three (3) pipe segments, all three-fourths (3/4) inch pipe in the system must be removed and inspected.



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2. If the three-fourths (3/4) inch pipe is at the lower elevation of an upward sloping branch line, or on a horizontal branch line, the contractor must remove and inspect one (1) of every four (4) branch lines. If corrosion or other concerns are noted in more than three (3) pipe segments, all three-fourths (3/4) inch pipe must be removed and inspected.
3. At least three (3) drops and/or tailbacks, on separate sprinkler branch lines, must be removed and inspected for corrosion and sediment. If either corrosion or sediment is located, all three-fourths (3/4) inch pipe must be removed and inspected.
4. Piping which is found to have its cross-sectional flow area reduced by a significant amount as determined by the Fire Marshal (or designee) is required to be replaced.
5. If more than half of the pipe inspected is found to have its cross-sectional flow area reduced by a significant amount as determined by the Fire Marshal (or designee) all three-fourths (3/4) inch pipe, related fittings, and sprinkler heads must be replaced (with a permit) with one inch (1") pipe.

PROCESS

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INFORMATION

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DEFINITIONS

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CROSS REFERENCES

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