

Yamhill Fire Protection District

District Policies, Procedures, & SOG's

MISSION

*Yamhill Fire Protection District is dedicated to
serve and protect our community*

District Procedure

OPERATIONS

OPS-FIRE – 606

Annual Fire Hose Testing

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Issued: August 1, 2013

ANNUAL FIRE HOSE TESTING

INTRODUCTION

Insurance Service Office (I.S.O.) requires an annual service test for all fire hose. Testing also serves to keep the district's inventory updated. NFPA 1962 recommends testing large diameter hose (3 ½ - 6") at 200 psi. Double –Jacketed hose, less than 3 ½" is recommended to be tested at 250 psi. Most new hose is factory tested at 600 psi. Experience has shown that some types of defects will show up only after prolonged application of water and will not be apparent if the pressure is immediately released after 250 psi has been reached. Most authorities recommend that the length of hose line to be tested should not exceed 300 feet/discharge.

POLICY

It is the policy of the district to perform annual service tests on fire hose. Large diameter hose (4 inch) is to be tested at 200psi for 5 minutes. All other double-jacketed hose is to be tested at 250 psi for 5 minutes. The lined 1" thru 1 ½" ODF single-jacketed hose is to be tested at 250 psi for 5 minutes.

PROCEDURE

- A. All air in the hose shall be expelled before pressure is applied. When conducting hose testing, remember that under normal conditions air is compressible and water is generally not. Should a hose burst under pressure, the sudden release of expanding air can cause serious injury.

B. MATERIALS NEEDED FOR HOSE TESTING

- 4 – 1 ½" Nozzles
- 8 – 2 ½" to 1 ½" Reducers
- 8 – 1 ½" to 1" Reducers
- Silicone spray
- Marking Pens
- Test results/record sheets
- Assorted hose gaskets
- Tags for marking hose which fails testing
- Hose Tester
- Hose Drying Rack

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C. CONDUCTING THE TEST

1. Connect the Hose Tester to a source of water.
2. Lay out all hose to be tested in lines not more than 300 feet long. Record identifying numbers and the length of each section of hose to be tested. Mark the end of the coupling shank to check for slippage of the coupling during the test.
3. Connect each line to the Hose Tester. (You can connect to 4 different lines to the Hose Tester at a time. Testing 4 lines at 100 feet in length each works well)
4. Attach the nozzles to the end of each line.
5. Fill each hose line with water and make sure that each nozzle is open and elevated during the filling process. Exhaust all air from each line by permitting normal water flow.
6. After all the air has been expelled, leave each nozzle open. Gradually raise the pressure at the nozzle to approximately 50 psi for solid streams or 100 psi for fog streams. This procedure can identify defective hose lining, which is more likely to pull loose during a flow of water under pressure than under static pressure.
7. Reduce the pressure, close each nozzle slowly, and place each nozzle on an elevated block or on the ground. Check and tighten all hose couplings.
8. Gradually raise pressure to appropriate pressure and maintain for 5 minutes (200 psi for 4-inch hose and 250 psi for smaller diameter double-jacketed or single jacketed hose).
9. After 5 minutes turn off Hose Tester and slowly reduce the pressure.

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10. Observe all marks on the hose behind the coupling shanks. If any of the couplings have moved (slight movement is normal), or if any section develops leaks, record, and tag as failed. If a section bursts during the test, all other sections in the line must be tested again. Record results on the Hose Test Report Worksheet (an example of the worksheet is attached).
11. Drain all water from the hose to prevent formation of sulfuric acid, which is particularly corrosive to cotton and Dacron surfaces. Damages from sulfuric acid accounts for many test failures.
12. After hose is drained, place on the Hose Rack to Dry.
13. When putting hose away, be sure it does not come into contact with oil, grease, or solvents, which can cause damage and result in test failures. Wash the hose with soap and water if contact occurs. Before putting hose away, check threads for damage. Bent or mashed threads can be straightened with a small piece of triangular file. Inspect all rubber gaskets and replace if necessary. Use silicone spray to lubricate all swivels as necessary.
14. All new hose must be engraved with a date and number.
15. When hose testing is completed, the testing worksheets need to be turned in to the Fire Chief for input into the computer.



Yamhill Fire Protection District

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Serving the people of the Yamhill Fire Protection District since 1896

ANNUAL HOSE TEST

YAMHILL FIRE PROTECTION DISTRICT

Test Date: ___ / ___ / ___

Test By: _____

Hose ID Number	Hose Location	Hose Size	Hose Condition	Purchase Date	Last Test Date	Pass / Fail	Remarks

LEGEND

Hose ID number: This is the identification number provided by the fire department for each section of hose.
Hose location: Define location of the hose; crosslay 1, preconnect 1, hose bed, storage, etc.
Hose size: list the size of the hose by diameter
Hose condition: Use poor, fair, good, replace, etc.
Purchase date: write in the date of purchase
Last test date: write in the last known test date
Made by: who manufactured the hose
Remarks: remarks pertaining to the section of hose, e.g., stained, abrasion, coupling damaged, etc.