STANDARD
OPERATING
PROCEDURES
DATE APPROVED:

ARTICLE: II

II SOP: 2201 2200 APPARATUS & EQUIPMENT

SUBJECT: HOSE TESTING PROCEDURES

6/2/2022

SECTION:

APPROVED:

Roy Willows

Purpose: To provide the basis for the consistent testing of fire hose and for ensuring

for maximum safety to the personnel conducting the test in accordance

with NFPA 1962.

Scope: These procedures are to be strictly followed to assure the safety of those doing

the testing. Testing shall be conducted annually in the second quarter (April-

June), on all 1 3/4", 2 1/2", and 4" hoses.

Procedure:

Equipment Needed

- Pumper
- Hose testing manifold
- 2 ½" test gate valve with ½" hole in gate
- Stop watch
- Clipboard with test sheets
- Various nozzles or gates to bleed air out of hose lines
- Personnel with helmets, gloves, jacket, and hearing protection.

1. Hook-up and Layout Procedures

- A. Attach a section of 2 ½" hose from pump to manifold. Inspect each coupling for gaskets.
- B. Connect hose to be tested to testing manifold. Inspect each coupling for gaskets. **Do not exceed 300 feet on any line.**
- C. Attach appropriate nozzles, gates, etc., to the end of each line to allow for bleeding of air.

2. Fill Hose Lines and Remove All Air

- Place pump in gear.
- B. Open test gate valve and 2 ½" discharge gate. Slowly fill all hose lines with attached nozzles/gates open.
- C. Bleed all air out of each line. Increase engine pressure to 50 psi.

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- D. Close each nozzle once all air is bled.
- 3. Marking the Couplings for Slippage
 - A. Each coupling shall be marked with a pen at the hose coupling connection.
 - B. All couplings shall be checked for leakage and tightened with spanner wrench if needed.
- 4. Increased Engine Pressure to Test Pressure
 - A. All personnel in the hose area during pressure test will wear safety helmets, gloves, jackets, and hearing protection.
 - B. Prior to raising engine pressure above 50 psi, <u>close the test gate valve</u> that is connected to the 2 ½"discharge.
 - C. **Slowly** raise pump discharge pressure to:
 - 200 psi for 4" supply hose
 - 300 psi for 2 ½", 1 ¾" attack hose
 - Maintain pressure for 3 minutes
 - D. Shutting down.
 - 1) Reduce engine pressure slowly.
 - 2) Open 2 ½" discharge gate.
 - 3) Open each nozzle to drain water.
- 5. Inspection
 - A. Observe marks placed on hose at each coupling. If coupling has moved during test, hose length shall be removed from service.
 - B. Any hose section that has burst or leaked during test shall be removed from service. If a section bursts during the three (3) minute test, the test must be stopped and the section replaced. The test shall start over.
- 6. Tagging Damages/Out of Service Hoses
 - A. Any section of hose that bursts, leaks, or has the coupling slip shall be "tagged".
 - 1) Tag shall indicate
 - "Out of service"
 - Reason for failure
 - Location of problem
 - Hose length number

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• Date of test

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- Signature of person conducting test
- 2) Tag shall be attached to male coupling.
- 3) Hose shall be hung for drying (if applicable).
- 4) Once dried, hose shall be rolled in an "out of service" roll.
- B. Any hose receiving damage during a fire or other use (torn jackets, mechanical damage, etc.) shall be rolled using an "out of service" roll and tagged "out of service until next test". Tag shall include all information as stated above.
- 7. Picking up and Record Keeping
 - A. Recording the test results.
 - 1) The recording of test results shall be done on the "Annual Service Hose Test" form and filled out completely.
 - 2) Hose testing results will be forwarded to the hose program manager for record keeping.
 - B. Breakdown all hose.
 - 1) Hang all hose in tower for proper drying (if applicable).
 - 2) Secure all other equipment and apparatus.

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Test Date:

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Test Administer

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Annual Service Hose Test

1 obt Patet			
Hose Location	Hose Size	Pass/Fail	Remarks
	Hose	Hose Hose	Hose Hose Pass/Fail

Hose ID Number: This is the identification number provided on the end of the hose

Hose Location: Location of the hose (hose rack, E2511, etc.)

Hose size: Hose diameter Pass/Fail: Results of test

Remarks: Condition of hose (Poor, good, abrations, etc.). Location of leak/issue that caused hose to fail.

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