Central Joint Fire District

Standard Operating Procedure

Central Joint Fire District

SUBJECT: Hose Testing

SOP Number: 321B
Effective Date: 5/5/92
Revised Date:
Approved:

PURPOSE: The purpose of this standard is to define procedures by which all soft fire hose shall be tested.

SCOPE: This standard applies to the testing of all soft fire hose in service with the Central Joint Fire District.

ENFORCEMENT: Enforcement of this standard rests with the Fire Chief.

DEFINITION:

Hose Lay - a continual length of hose from the pressure source to the nozzle.

Discrepancies - anything noted out of the ordinary. Not usual.

APPLICATION:

321B.1 General

All soft fire hose, including diameters of 1", 1-1/2", 1-3/4", 2-1/2", 4" and 5" classified as attack or supply hose shall be tested annually. Testing shall include hydrostatic, visual, and mechanical inspection.

All referrals regarding this standard shall be referred to NFPA 1962-88.

321B.2 Pretesting pump set up

1) Locate pumper on a clean surface, with a slight downhill grade.
2) Secure an adequate water supply to the pump.
3) Ensure that hose will be out of the flow of traffic.
4) On midship pump panels hose should be connected to the opposite side of the truck from the side the pump panel is located on.

321B.3 Pretest hose set up

1) Lay hose to be tested in flat straight lays not to exceed 300' in length on any one hose lay. As the hose is laid out inspect the jacket for evidence of mechanical, environmental, or chemical damage. Any presence of the aforementioned discrepancies shall fail the hose, and such hose shall be repaired or replaced. An unlimited number of hose lays can be supplied from one truck. !! NOTE - THE EMPHASIS IS ON PRESSURE NOT ON VOLUME !!

2) Inspect the hose couplings and hose gaskets for evidence of mechanical, environmental, or chemical damage. Any presence of the aforementioned discrepancies shall fail the coupling and hose, and such couplings and hose shall be repaired or replaced. Replace any hard, brittle, worn, or weather checked gaskets.

3) With a black magic marker, mark the location of the coupling on the hose jacket. This step is to detect any coupling slippage.

4) Strap or tie the pump end of the hose to the manifold or the pump discharge.
!! HAZARD - THE STRAPS AT BOTH ENDS ARE TO ENSURE THE SAFETY OF THE CREW IN THE EVENT OF HOSE FAILURE !!

5) Attach nozzles or blind cap with a gate valve to the nozzle end of the hose.

6) Strap or tie the nozzle ends of the hose to each other. Preferably the nozzles should be strapped to one another. In the event blind caps are used with gate valves, strapping the hose together will be permitted.

321B.4 Pretest charging

1) Pressurize pump to 25 psi.

2) Open the pump discharge valves or manifold valves.

3) Open nozzles or blind caps with gate valves halfway. Let water flow until all air has been evacuated from the hose. Close the nozzles or blind caps with gate valves.

4) Gate the pump discharge valves or the manifold valves back to between 1/8 and 1/4 open position.

5) Increase pump discharge pressure to 50 psi. Inspect the hose lays for coupling slippage, leaking couplings, or other obvious discrepancies. Leaking couplings can be tightened or have the gaskets replaced.

6) After all discrepancies have been corrected proceed with 321B.5 or 321B.6.

321B.5 Hydrostatic test for 1" - 2-1/2" attack and/or supply hose

1) Clear all unncessary personnel from the testing area. Persons should stay at least 50' away from hose being tested.

2) SLOWLY increase pump discharge pressure to 250 psi. Hose will continue to be pressurized at 250 psi for not less than five (5) minutes.

3) After five minutes time has elapsed, slowly reduce the pump discharge pressure to zero (0).

4) Again, observe the couplings for slippage, and the hose for any other obvious discrepancies.

321B.6 Hydrostatic test for 4" - 5" attack and/or supply hose

1) Clear all unncessary personnel from the testing area. Persons should stay at least 50' away from hose being tested.

2) SLOWLY increase pump discharge pressure to 200 psi. Hose will continue to be pressurized at 200 psi for not less than five (5) minutes.

3) After five minutes time has elapsed, slowly reduce the pump discharge pressure to zero (0).

4) Again, observe the couplings for slippage, and the hose for any other obvious discrepancies.

321B.7 Post-test procedures

1) Note test results on the corresponding hose card.

2) Drain all water from hose.

3) Wash and dry hose as needed.

4) Put hose in service on truck or in storage as applicable.

321B.8 Repairs

Any time hose is repaired it shall be tested in accordance with these applicable procedures, prior to being returned to service. Proper documentation shall be entered on the corresponding hose card, regarding the nature of the repair and any length changes.

321B.9 Hose Identification

All hose in service with the Central Joint Fire District shall be identified in the following manner:

1) All identifying numbers shall be stamped on the female coupling of each piece of hose. The exception shall be for any sexless couplings in which case both sets of couplings shall be stamped.

2) The identifying number shall be prefixed with **"CJFD-".**

3 The first two digits of the identifying number shall indicate the hose diameter as follows:

1"	=	10
1-1/2"	=	15
1-3/4"	=	17
2-1/2"	=	25
4"	=	40
5"	=	50

4) The number following the diameter identifier shall designate the piece of hose.

5) Example: **CJFD-501** would indicate #1 length of 5" hose.
CJFD-2521 would indicate #21 length of 2-1/2" hose.

321B.10 Test Records

Test records shall be on file for each piece of hose in service with the department. All test results shall be duly entered in the department computer at the time the test is completed.

In addition, any time a piece of hose is taken out of service the status shall also be noted in the department computer. Out of service shall be clearly marked till serviceable.