

PURPOSE

To establish standard guidelines for fire hose testing and for the documentation and reporting of test results. All City of Peoria Fire Department fire hose is subjected to pressure testing annually, and is performed in accordance with the recommendation of the National Fire Protection Association Standard 1962.

POLICY

All Hose testing procedures will be in accordance with NFPA 1962.

Procedure

The testing of fire hose will be completed: (a) on an annual basis; (b) after repair; (c) whenever reliability is in doubt.

Responsibilities

Company Officers are responsible for assuring testing of all fire hose assigned to that Company for testing. The hose testing officer is responsible for the completion and monitoring of the program and for reporting of results to the Physical Resource Supervisor.

Hoses to be Tested

All fire hose 1 ½ inches in diameter and larger, whether in storage or on apparatus will be pressure tested.

Recordkeeping and Reporting

Company Officers will record test results for each length of hose assigned to the station on the supplies hose test inventory data sheet. Stamped numbers on couplings will be checked, and if unreadable, then arrangements shall be made with Support Services/Assigned Personnel to correct the stamping.

All hose that fails the pressure test or is otherwise defective will be tagged with a red out of service tag and Support Services/Assigned Personnel will be notified.

Safety

Company Officers shall ensure that all personnel observe the following safety precautions:

- Do not stand near or over couplings.
- Do not straddle hose.
- Be alert for sudden ruptures.
- Helmet and gloves must be worn by personnel handling/attending hose lines.
- Hose that has been stored for any length of time may house black widow spiders.
- Observe all general safety rules.

Hose Test Procedures

This procedure conforms to NFPA 1962, 1998 edition, and supersedes all previous hose testing procedures.

Service Test Pressure

Service test pressures for all hose used by the Peoria Fire Department are:

1 ¾" and 2 ½"	400 PSI for 3 minutes
4" Supply	300 PSI for 3 minutes
4" Suction	150 PSI for 3 minutes

Service Test ProcedureTest Layout**DO NOT USE FIRE APPARATUS PUMPER TO CONDUCT HOSE TESTING**

- Maximum length for hose service test layout is 300 feet and all hose in a single layout must be of the same internal diameter and test pressure capacity.

USE HOSE TESTING MACHINE TO CONDUCT ALL TESTING

- Plan to position test machine so that all hose to be tested will lay flat, straight and level. If hose must be tested on a slight incline, the discharge end of the hose must be at the crest of the incline, so the test machine is at the lowest angle.
- Prior to connection the hose to be tested, inspect all couplings to insure that coupling gaskets are in place, female swivels rotate freely and there are no signs of coupling slippage (Coupling off center, unusually clean fabric next to couplings, or fabric threads broken or curling around coupling shanks). Also, visually inspect all hose for jacket tears, burn spots, cuts severe abrasion, unusual lumps, bulges, or twists.
- Any hose showing unusual wear or signs of coupling slippage should be sent to Resource Management and not field tested.
- After visual inspection, connect the hose layout and attach an appropriate nozzle with shut off. Connections should be hand tight but firm. Tightening couplings with spanner wrenches prior to wetting may mask coupling gaskets that need replacing.

Pressure Test**TO FOLLOW NFPA 1962 5-5.2**

- Assure the test layout is straight and level as possible and that the nozzle being used is closed.
- Prior to pressurizing the test layout, position one person as a spotter with an unobstructed view of both the test layout and the test machine operator. This person shall act as traffic control for personnel entering the test area and as signaler to the test machine operator for charging and shutting down the operation.
- When the test machine operator receives conformation for the test to begin, the pump will be engaged and the proper discharge gate shall be cracked open only enough to allow gradual filling of the test layout. At no time shall the pump pressure exceed 50 PSI during the initial testing.
- From initial pressurization through the remainder of the test personnel entering the test layout area must approach from the LEFT of the hose. The LEFT is determined by facing the nozzle with the pump to your back. Also, only personnel wearing helmets, face shields down, shall enter.
- With test pressure maintained at a maximum 50 PSI, the nozzle shall be slowly opened until all air is expelled, then slowly closed. Personnel shall the visually inspect the test layout for any signs of leaks, bulging, or coupling slippage.
- While visually inspecting the hose, each coupling shall be circled with chalk or felt pen, where the jacket meets the coupling shank, so that any coupling slippage can be detected after testing.
- If during the initial testing, leaks are detected around any coupling connections, one attempt should be made to tighten the coupling by using spanner wrenches with hand pressure. If the leak continues, the test will be discontinued and the coupling gasket replaced. Should the coupling continue to leak after restarting the test, the affected hose length shall be removed from the test layout and marked failed.
- After circling the coupling shank and passing visual inspection the test layout is ready for the service pressure test. All personnel should leave the immediate area and remain at least 15 feet to the left of the test layout until the test is completed.
- Upon receiving confirmation from the spotter that the area is clear, the test machine operator will gradually increase pump pressure to the proper service test pressure. Discharge gate opening will remain at a minimum and be manned so that immediate shutdown can be affected if hose rupture occurs.

Pressure Test (Continued)

- Once test pressure is achieved, this pressure shall be maintained during the test procedure.
- If during the service pressure test, coupling leaks appear or suspicion develops that hose may be approaching failure, discontinue the test!

DO NOT approach the test layout at pressures above 50 PSI.

Test Completion

- At the end of 3 minutes the pressure test is considered completed.
- Personnel properly attired (gloves and helmets) will slowly open the nozzle to drain the hose, inspect the hose and couplings for slippage or damage, then disconnect and drain the hose.
- Test results and inventory information are to be recorded as per instructions on the Annual Hose Test Inventory Sheet and given to the hose testing officer, who will then forward them to the Physical Resource Supervisor. Hose that fails any part of the test shall be *Red Tagged*, supplying all pertinent information, and held in a separate location from *Passed* hose until picked up by the Support Services/Assigned Personnel.
- Hose may be reloaded or rolled, immediately after testing, but as much excess water as possible should be removed. Cleaning can be accomplished with mild detergent, water, and brushing. *Never* use solvents or hydrocarbons for cleaning hose!

Approved: _____

Bobby Ruiz, Fire Chief

12-8-12

Date