



**City of Winchester
Fire & Rescue Department
STANDARD OPERATING PROCEDURE**



Section:	Buildings - Equipment and Supplies	SOP:	5.2
Subject:	Fire Hose Testing	Executed:	January 1, 2006
		Revised:	February 1, 2011 April 26, 2012
Approved:			
 Scott Cullers, Fire Chief			

PURPOSE

To outline a procedure to follow when performing fire hose service testing, maintenance and documentation.

SCOPE

It shall be all Department volunteer and career personnel's responsibility to test and maintain fire hose that is assigned to each station. This shall take place for the following:

- Annually (typically in the spring)
- After any repair work to the hose and/or couplings
- When placed into service for the first time
- After incidents where there is suspected damage

PROCEDURE

It is the responsibility of the engine company station supervisors to coordinate hose testing with all station personnel and company Chiefs. Personnel safety shall be priority when testing hose. At a minimum, personnel shall wear helmets, gloves and safety glasses. The following sequence of events should be used as a consistent procedure for testing hose:

1. Lay hose to be tested out in no more than 300' lengths. Make sure that lines are straight and without kinks or twists.
2. Connect pumper to a suitable water source for testing.
3. Connect lines to be tested to gated outlets of pumper. Attach shut-off nozzles to the far end of lines. Secure both ends of hose line. Support the hose line being tested with a belt tie in or a rope hose tool at a point ten to fifteen inches from the butt coupled to the pumper discharge.
4. Secure the nozzle (or the hose directly back of it) to avoid possible whipping or other uncontrolled reaction.

5. With the gate valves and nozzle open, fill hose with water while the engine is at idle RPM. After the hose line is charged and all air has been exhausted from the hose, close the gate at the pumper to allow only a small amount of water through, then close the nozzle, this allows only a minimum volume of water to enter the hose.
6. Check all couplings for leakage and tighten couplings with spanner wrench where necessary. Mark hose at each end of coupling with a crayon or marker. This is to determine whether there is any coupling movement during test.
7. With the pumper gate valve opened slightly (just enough to build up pressure), raise the pressure 50 psi every 60 seconds until 200 psi (4" hose) or 250 psi (all other hose) is obtained; then hold the test for five minutes. While the hose is being tested walk along the hose line and inspect for leaks or bad places in the hose. Never straddle a hose under pressure. Personnel should keep a distance of about forty five feet (45') from the hose except when necessary to inspect a leak or problem. Keep pedestrians and bystanders away from the hose.
8. After five minutes, Reduce pump pressure to idle, close the pumper gate valve, disengage pump and open nozzle and pumper drains to reduce pressure in hose lines. Pump operators shall ensure there is no overheating of the pump.
9. Before disconnection from pumper and uncoupling hose check hose for movement at couplings. If movement is indicated, note for record.
10. Hose that is not dirty and wet may be repacked on the pumper. However, hose that is dirty and/or wet should be washed and/or dried properly. Hose must be free of gravel and cinders before it is repacked.
11. Properly record results on the attached log sheet.

FAILED HOSE

Hose that fails the testing process shall be taken out-of-service immediately and replaced with spare. The failed area of the hose shall be marked. Hose that is not-repairable shall be tagged out-of-service and taken to the training center for disposal. Hose that is repairable (i.e. 4" LDH) shall be repaired if possible by Department personnel. The new repaired length should be written on both sides near the couplings. In any case, a failure of hose shall be documented on the attached log sheet.

DOCUMENTATION

A Station Officer shall be responsible for all paper logging of the hose testing results. All logs shall be forwarded to the office for dissemination and input into the Department reporting system.

Items to record:

- Assigned hose number
- Size of hose
- Pass/fail of hose
- Repairs made to hose/new length
- Date of hose testing
- In-service/out of service hose

HOSE NUMBERING

The numbering system that will be used for all new purchases of hose will follow the following criteria:

Example: 12-4001	
12	Year of Purchase
4	Size of hose 4 = 4" 3 = 3" 2 = 2 1/2" 1 = 1 3/4"
001	Hose number

