

 Section 6	BOONE COUNTY FIRE PROTECTION DISTRICT STANDARD OPERATING GUIDELINES
	PHYSICAL RESOURCES
	Subject: Hose Service Testing Number: (7209) Date Initiated: September 1, 1992 Date Revised: August 1, 2005
	Approved: Stephen D. Paulsell, Fire Chief

1.0 ACCREDITATION REFERENCE

- 1.1 Criterion: 6D
- 1.2 Performance Indicators: 6D.3, 6D.4

2.0 DEFINITIONS

- 2.1 None

3.0 PURPOSE

- 3.1 To ensure that hose used by the Fire District is annually tested and is ready for use.

4.0 POLICY

- 4.1 There shall be a standard procedure for testing hose that are assigned to Fire District apparatus and stations. Safety is of the utmost importance during hose testing procedures. All safety procedures will be followed explicitly.

5.0 PROCEDURE

- 5.1 **Please Note:** All personnel involved in the hose testing procedure are to wear their gloves and helmet throughout the test period. There will be NO EXCEPTIONS to this rule. All nonessential personnel will remain at least 100 feet from the hose while it is undergoing high pressure testing.
- 5.2 Step 1: Lay out all hose to be tested in lines not more than 300 feet long. The number of lines to be tested at one time is limited to the number of available discharge outlets on the engine. Do not use discharge outlets located at the pump panel. Use rear discharge outlets or passenger side discharge outlets. Make sure the lines are without kinks. Record identifying numbers of each section of hose to be tested. Re-stencil the inventory number with a large black marker if the inventory number is near unreadable. Tighten each connection with a spanner. IMPORTANT: When testing hose with Storz couplings use two spanner wrenches to tighten the coupling. For Storz couplings ensure that the higbee indicators on each coupling are aligned.

- 5.3 Step 2: Connect the engine to a source of water supply. Either a hydrant or a draft basin can be used.
- 5.4 Step 3: Connect all lines to be tested to an engine discharge. Attach a shut-off type nozzle to the discharge end of each hose line. Mark the hose at the end of each coupling shank with a soft pencil. This procedure is necessary to determine if there is any slippage of the coupling during the test.
- 5.5 Step 4: Fill each hose line with water and make sure that each nozzle is open and elevated during the filling process. Exhaust all the air from each line by permitting a normal water flow. (The nozzles may be held by firefighters or placed on something to raise them.)
- 5.6 Step 5: After all the air has been expelled, leave the nozzles open and gradually raise the pressure at the nozzle to approximately 50 psi for solid streams or 100 psi for fog streams. Defective lining is more likely to pull loose during a flow of water under pressure than it is under static pressure. Pressure alone may not show up a defective lining.
- 5.7 Step 6: Reduce the pump pressure, close each nozzle slowly, and place each nozzle either on an elevated block or on the ground. **IMPORTANT:** Check all couplings for leakage and tighten those that are loose.
- 5.8 Step 7: Gradually raise the pump pressure to the recommended 250 psi and hold this test pressure for five minutes. Once the target pump pressure has been reached, "gate down" the open outlets so that they are only slightly open. This is necessary so that if a hose burst only a small amount of water will continue to flow.
- 5.9 Step 8: Observe all hose under pressure for any defects.
- 5.10 Step 9: After five minutes, reduce the pump pressure slowly, close discharge, disengage the pump, and open each nozzle.
- 5.11 Step 10: Observe all marks on the hose back of the coupling shanks. If any of the couplings have moved or if any section develops leaks, this section has failed the test. If a section bursts during the test, all other sections in the line must be tested again. Tag or mark all defective sections and record test information on the form provided. Take all the defective sections to the Maintenance Facility for repair.
*NOTE: Accept a 1/16-inch to 1/8-inch (1.6 mm to 3.2 mm) uniform movement of the coupling on newly coupled hose. This slippage is normal during initial testing, but should not occur during subsequent tests.
- 5.12 Fire Hose Numbering System - Inventory numbers for each section of hose will be found either near the female coupling on the hose in black paint or engraved on the female coupling. The inventory number will be preceded by the letters "BC". A number such as 3-71 indicates the date of purchase and is not the inventory number. Hose purchased after January, 1990 will have the inventory number on the hose (listed as an example 91-001). The first two digits are the last two digits

of the year. The next three digits represent the diameter of hose. The following are the sequence breaks for each type of hose:

5.12.1 <u>Numbering sequence</u>	<u>Type of hose</u>
00-001 to 00-049	1" forestry hose
00-050 to 00-099	1.5" attack hose
00-100 to 00-299	1.75" attack hose
00-300 to 00-499	2.5" attack hose
00-500 to 00-699	3" supply hose
00-700 to 00-706	4" supply hose
00-900 Misc.	(5" soft sleeve, Hard Suction, etc)

6.0 APPLICABLE CODES AND STANDARDS

7.0 APPENDICES

**Boone County Fire Protection District
1 Inch Hose Test Record**

Station:_____ **Apparatus:**_____ **Date:**_____

Officer/Senior Firefighter In Charge:_____

Diameter	Hose #	Construction	Pressure	Pass/Fail
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	
1 inch			150 psi	

Assisting Personnel:

**Boone County Fire Protection District
1-1/2 Inch Hose Test Record**

Station:_____ **Apparatus:**_____ **Date:**_____

Officer/Senior Firefighter In Charge:_____

Diameter	Hose #	Construction	Pressure	Pass/Fail
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	
1-1/2 inch			250 psi	

Assisting Personnel:

**Boone County Fire Protection District
1-3/4 Inch Hose Test Record**

Station:_____ **Apparatus:**_____ **Date:**_____

Officer/Senior Firefighter In Charge:_____

Diameter	Hose #	Construction	Pressure	Pass/Fail
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	
1-3/4 inch			250 psi	

Assisting Personnel:

**Boone County Fire Protection District
2-1/2 Inch Hose Test Record**

Station:_____ **Apparatus:**_____ **Date:**_____

Officer/Senior Firefighter In Charge:_____

Diameter	Hose #	Construction	Pressure	Pass/Fail
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	
2-1/2 inch			250 psi	

Assisting Personnel:

**Boone County Fire Protection District
3 Inch Hose Test Record**

Station:_____ **Apparatus:**_____ **Date:**_____

Officer/Senior Firefighter In Charge:_____

Diameter	Hose #	Construction	Pressure	Pass/Fail
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	
3 inch			250 psi	

Assisting Personnel:

**Boone County Fire Protection District
4 Inch Hose Test Record**

Station:_____ **Apparatus:**_____ **Date:**_____

Officer/Senior Firefighter In Charge:_____

Diameter	Hose #	Construction	Pressure	Pass/Fail
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	
4 inch			250 psi	

Assisting Personnel:

Station:_____ **Apparatus:**_____ **Date:**_____

Officer/Senior Firefighter In Charge:_____

[illegible]