Edgerton Fire Protection District

Skill Drill #111 – Hose Testing

Hose Testing Overview

Safety Reminders

-All personnel are to wear approved safety helmets as well as a shield or safety glasses when working near hose under pressure.

-Care shall be taken to remove all air from the hose before the valve in the test cap or the nozzle is closed and the pressure increased. The development of test pressures introduces a serious accident potential if air remains in the system.

-All hose 1 ½" and larger shall be tested annually. This includes hose that is used as attack hose as well as LDH relay and supply hose.

--While the hose layout is at service pressure it shall be inspected for leaks. Personnel shall try to be at least 15' to the left of the hose. Personnel shall never stand in front of the free end of the hose, on the right side of the hose, or straddle the hose.

Test Layout

-Prior to testing all hose shall be marked where the coupling meets the hose. This will provide a way to determine if the hose "slips" from the coupling during testing. All hose shall also be inspected for tears and signs of wear. If any signs are noticed, take the hose out of service.

-The maximum length for testing hose is 300'. However, it is recommended that it be tested in lengths of 100' of less.

-When testing LDH a length of 2 ½' leader hose must be used and counted as part of the overall length.

-The Edgerton Fire Protection District uses hose testing machines instead of apparatus mounted pumps to test all hose.

-Care should be taken to remove all air from the hose before the nozzle is closed and the pressure is raised. The development of test pressures introduces a serious accident potential if air remains in the system.

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Hose Test Procedure

For all hose other than LDH:

-Connect a maximum of 300' to the hose tester. A total of 1200' can be tested at once. **It is recommended that test lengths of 100' be used to shorten the time that it takes to reach the testing pressure.**

-Make sure that the hose is laid out in a straight line with a nozzle at the end. The end with the nozzle should be higher than the end at the hose tester. At this point all couplings shall be **hand tight only**.

-From initial pressurization through the remainder of the test, personnel entering the test layout area must approach from the left of the hose. Left is determined by facing the nozzle, with the hose tester to your back. Also, only personnel wearing bunkers and helmets with face shields down (or safety glasses), shall enter.

-Pressurize the lines to 50 psi. Open nozzle and bleed all air out of the hose.

-With test pressure maintained at 50 psi, inspect couplings. Tighten with spanner wrenches if necessary. If there are any couplings that still leak, discontinue test and replace gasket. If the leak continues, remove leaking hose and tag as failed.

-Gradually increase pressure to the service test pressure that is marked on the hose. Maintain this pressure for 1 minute with the valve open. Then close valve and keep pressurized for a period of 3 minutes.

-After 3 minutes, open the bleeder valve on the hose tester.

-Inspect the marks near the couplings to check for slippage. Remove any hose that has slipped and mark as failed.

-Drain all hose. Clean, roll, and reload on apparatus.

For all LDH follow same steps as above except:

-Use a 2 ½" leader hose connected to hose tester. Then connect no more than 200' of LDH. Test to service test pressure as marked on hose.

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Hose Test Cheat Sheet

For all hose other than LDH:

- Mark all hose at the coupling to check for slippage during testing
- Connect up to 4 - 100' lengths to the hose tester
- Hand tighten all couplings
- Pressurize to 50 psi
- Inspect couplings
- Tighten leaking couplings with spanner
- If leak persists, remove and mark as failed
- Increase pressure to service test pressure as marked on hose
- Maintain for 1 min. with valve open.
- Close valve and keep pressurized for 3 min.
- Inspect for leaks-always walk on left side of the hose
- Never step over pressurized hose
- After 3 min., open bleeder valve on hose tester
- Drain and clean all hose
- Roll all hose prior to loading
- Reload on apparatus

For LDH:

- Stencil all LDH to identify which apparatus it is from
- Use a 2 ½" leader hose from hose tester
- Use no more than 200' of LDH
- Test to service test pressure as marked on hose

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