A Note from Engineering,

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Fire Hose Testing:

We have had a number of questions on fire hose testing using fire pumps.
The Hale position has been consistent over the years. To clarify note the points below.

A robust Fire Department maintenance program includes hydro testing of the discharge hose on the fire apparatus. Like anything else, fire hose is subject to wear and tear and degradation over time even if not used very often. NFPA standards and departmental policies call for a service test where the hose is subject to pressure to check its integrity.

Specialized hydrostatic test pumps should be used for testing hoses.

Hale pumps should not generally be used for testing hoses! The pressures required for hose testing can be beyond the range of many fire pumps. The dead head or zero flow condition caused during hose testing can overheat many fire pumps. The high flow available from a fire pump can cause more serious injury or damage when a hose fails.

Pumps designed for hydro testing fire hose are available form various sources. These are generally small displacement piston pumps designed for this purpose. As with any purpose-built equipment they are designed for testing hose. Their low flow rate means that there will be less damage when a hose breaks. Some hose testers have multiple connections for hooking up several hoses.

Testing hose using a fire pump may violate the pump warranty and can subject personnel and equipment to unnecessary risks.

Hale does not recommend using Fire Pumps for testing hoses!

There certainly are some groups that use their Truck Mounted Fire Pumps for testing hose. This is a high risk operation and should be discouraged whenever possible. Sometimes an operator has many years of good luck using their fire truck for hose testing, perhaps gating the discharge valves to limit flow, perhaps not. The important term there is ‘good luck’. If or when that luck runs out, a broken five inch LDH hose unleashes enough power knock down a tree and can easily injure or kill. Eventually any given department will run into a burst hose during the service test. Think about the un-controlled flow coming out of the broken hose and the risk of using a Fire Truck pump for purposes that it was not designed becomes less attractive.

Some operators have built their own custom built hydro testers with pressure washer pumps and relief valves to save on the cost of a new hose testing machine. Obviously Hale can not provide any guidance for home made systems.

FireFighting is an inherently dangerous occupation……..
Personnel should not take additional risks when performing routine service tests.

FYI,
MAE

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