

FLOW TESTING HYDRANTS

During my travels around the state, I have been asked by a few operators about when and why they should flow test their hydrants. Flow testing provides water and fire professionals with important information. Insurance companies also use flow test results when determining insurance rates for customers. Flow testing determines the available pressure on a water line (the static pressure), the amount of pressure left on the line when a hydrant is used (the residual pressure), the flow pressure and flow rate of water coming out of the hydrant.

Hydrants should be flow tested at least once a year. Some systems flow test hydrants during servicing. By comparing pressure readings over a long period of time, you may find possible leaks and weak lines in the system. For example, the available (static) pressure on a hydrant was 70 pounds per square inch (psi) last year. This year when the hydrant was tested the static pressure was 60 psi. By comparing these pressure readings, the system can find potential sources of water loss. Flow test may also reveal closed or damaged valves.

Firefighters use flow test results to find out how much water they can use on a line without damaging the water main or disrupting household water use. If firefighters use a pumper on a hydrant that can't supply enough water, the water main could collapse. Firefighters must also flow test to find out if the line provides enough flow and pressure to meet insurance and fire codes.

To conduct an accurate flow test, you will use two hydrants. On one hydrant you will measure available (static) and remaining (residual) pressure. Someone else must operate the next hydrant downstream from this one. This hydrant will be used to measure the pressure of flowing water in the line. Invite your local fire department to participate in flow tests. Most departments have flow testing equipment. They may also be able to help you calculate flow test results.

For more information on flow testing, calculations and hydrant maintenance, please feel free to contact me at 1-888-937-4992 or send me a e-mail at gmeyer@inh2o.org. The Alliance has access to the National Rural Water Associations (NRWA) data base and can provide you with training guides on this subject and others in the water treatment field.

Until next time, lets all be careful out there. Gordie