

Hiawatha Fire & Rescue

Policy 610
Emergency Operations
Pump Pressure
02/11/04

PURPOSE Define Standard Pump Pressure for Hose Lays to provide reasonable fire flows.

SCOPE: Applies to all operations when water movement is to occur, or can be expected to occur.

BACKGROUND :

Adequate Fire Flow requires proper Pump Pressure. Use of Standard Pump Pressure (SPP) for Standard Hose Lays (SHL) provide a specific basis for all fire flow operations. Such SPP assures an acceptable flow for each hose layout. Quick knock down with minimum collateral damage can result.

PROCEDURE:

In preparation for operation, the pump shall be engaged and 50 to 75 psi established.

If fire flows are not required, the pump shall be secured with the apparatus returned to road gear and placed in neutral.

Pre-connected attack lines 1 3/4 inch or less shall be operated at 150 psi, plus or minus 1 gauge division.

Pre-connected attack lines 2 inch to 3 inch shall be operated at 120 psi, plus or minus 1 gauge division.

Dump lines of 2 1/2 inch to 5 inch shall be operated as follows;

IF, 1 section of 5 inch	= 5 psi.
1 section of 3 inch	= 20 psi.
1 section of 2 1/2 inch	= 50 psi.

Relay lines should be started and maintained at 50 to 75 psi with incremental increases of 10 psi until the receiving unit has 15 to 20 psi residual.

Friction loss of any line size may be based on 10 psi for each SECTION if the correct value is not known

Drafting operations require a minimum of 10 to

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20 GPM flow to maintain prime.

PUMP PRESSURES

Nominal flow for estimating the capacity of Hiawatha Hose Lines will be as follows.

TABLE 1 MAXIMUM EXPECTED LENGTH FOR A GIVEN FLOW

SIZE (INCHES)	DESIGN (GPM)	FLOW (GPM)	LENGTH (FEET)
=====	=====	=====	=====
1	25	20	200
1 1/2	100	90	200
1 3/4	150	125	200
2 1/2	250	320	200
3	500	500	700
4	750	725	1300
5	1000	1200	2000