TOPIC: Dual Pumping Hydrant Operations, Two Engines

TIME FRAME: 30 Minutes

LEVEL OF INSTRUCTION:

BEHAVIORAL OBJECTIVE:

Condition: A written quiz

Behavior: The student will describe the theory and principles of dual hydrant pumping operations.

Standard: With a minimum of 70% accuracy

MATERIALS NEEDED:

- Chalkboard
- Two engines
- Hydrant
- Hydrant wrench
- Two lengths soft suction
- 2 lengths 2 1/2" hose with nozzles or master stream devices

REFERENCES:

- IFSTA Fire Department, Pumping Apparatus, 7th Edition, Chapter 4

PREPARATION: High volume hydrants are capable of supplying two engines. This offers better utilization of water supplies, shorter hose lays, and grouping of apparatus. Fireground operations occasionally require dual pumping to provide these benefits.

PRESENTATION	APPLICATION
I. FIRST ENGINE	
	How should the first engine be spotted at the hydrant?
A. Spots at Hydrant	
1. Within reach of large diameter suction hose	
	Information Sheet #1
2. Aligned to minimize kinks	
3. Pump panel on hydrant side	
B. Connects the Large Diameter Suction Hose to the Largest Hydrant Outlet	
C. Connects Large Diameter Suction Hose to the Pump Suction Inlet	
D. Opens Hydrant to Supply Water	
E. Pumps Water to the Fire with an Attack Line	
II. SECOND ENGINE	
A. Spots Adjacent to the First Engine.	
	How should the second engine be spotted at the hydrant?
1. Second engines pump panel within large soft suctions hose's reach of unused suction inlet on first engine	
2. Aligned to minimize kinks	

PRESENTATION	APPLICATION
III. HYDRANT AND PUMPING OPERATIONS	
A. First Engine Personnel	
	If using a gated suction inlet valve on engine steps III A. 1 & A. 2 may be skipped
1. Close down hydrant slowly until compound gauge registers 5 P.S.I.	
2. Adjust throttle simultaneously to maintain adequate nozzle pressure at fire.	
3. Remove unused large suction inlet cap	
	Since reading on compound gauge (5 P.S.I.) indicates volume of incoming and outgoing water are almost equal little water should leak when the cap is removed.
B. Second Engine Personnel	
1. Attach large suction hose to:	
a. Large suction inlet on second engine and	
b. Unused large suction inlet on first engine	
2. Connects attack line from second engine to the fire	
C. First Engine Personnel Open Hydrant Completely and Adjust Pressure Being Provided to the Fire.	

PRESENTATION	APPLICATION
D. Second Engine Personnel Pump (excess) Water Which Has Passed Unused Through the First Engine to the Fire. 1. Adjust pressure being supplied to the fire.	

SUMMARY:

When fortune smiles upon you and a hydrant has the capacity to support dual pumping operations valuable resources can be saved by using two engines at the same hydrant.

EVALUATION:

A written quiz.

ASSIGNMENT:

To be determined by instructor(s).