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WATER SUPPLY OPERATIONS – MUNICIPAL/SUBURBAN (1.1)

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- NFPA 1142 Standard on Water Supplies for Suburban and Rural Firefighting

TASK SKILL DESCRIPTION AND DETAIL

Properly securing an uninterrupted water supply is essential to support all fire ground operations. It is required by NFPA Standard 1142 for all interior firefighting operations.

Having a water supply allows engine companies to actively engage the fire for extended periods if needed, to support task, tactical and strategic objectives of the incident (i.e. search and rescue, ventilation, fire attack etc.). Firefighters must be proficient in the basic skills of securing a water supply and must be familiar with the operation of the equipment used to accomplish the task.

Task #1 – Forward lay.

#1 Locate the hydrant bag and free end of LDH including webbing secured to LDH (Fig. 1).
Note: *If the driver operator is "securing their own water supply" a short section of L.D.H. and the second hydrant bag may be used.*

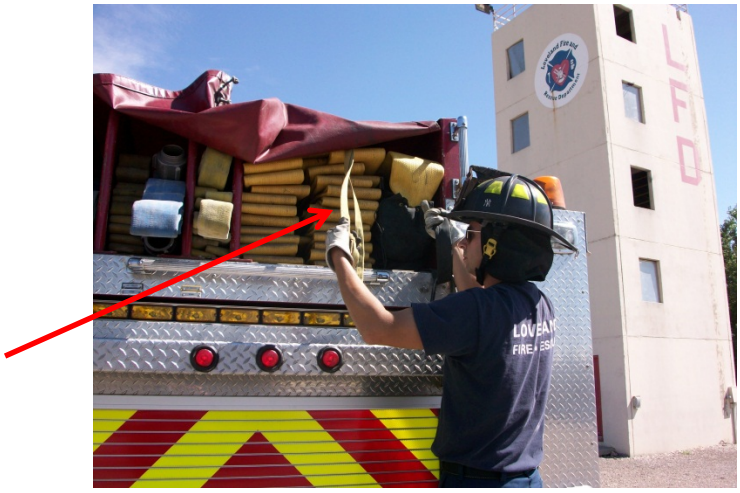

Fig. 1

#2 The Firefighter deploys the hydrant bag and LDH from the hose bed and drags it to the hydrant nearby (Fig. 2).

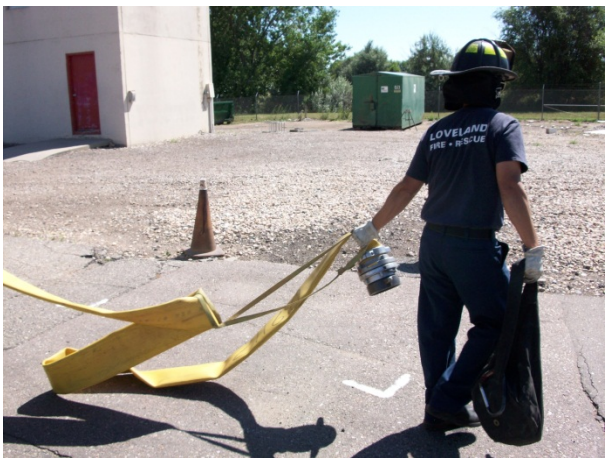

Fig. 2

#3 Secure or "wrap" the LDH to the hydrant, including the webbing that is secured to the LDH. The hose and the webbing wrapped around the hydrant allows the apparatus to drive away and ensure that the hose will be with the firefighter at the hydrant so they can make the connection to the hydrant (Fig. 3 & 4). **Note:** *When "hand jacking" this step is not necessary.*

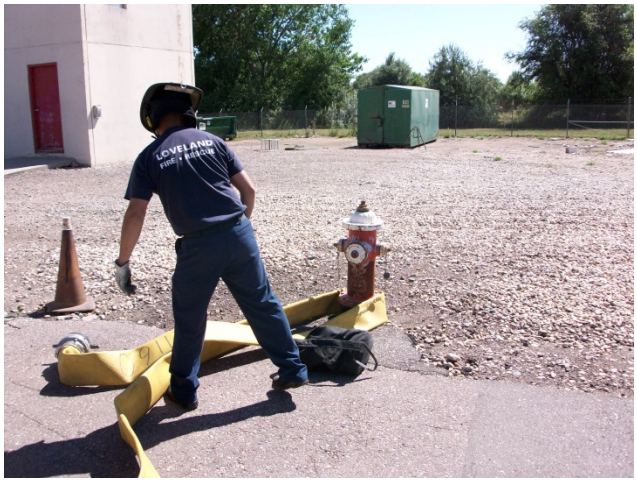

Fig. 3

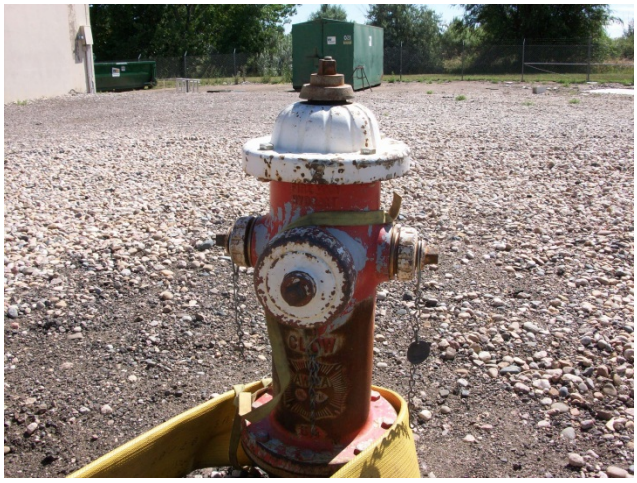

Fig. 4

#4 Apparatus will deploy the supply line by driving away from the hydrant towards the fire and/or attack engine. The firefighter that is at the hydrant will either motion to the driver with hand signals or communicate over the radio to start deploying the hose (Fig. 5).

Fig. 5

#5 The firefighter remaining at the hydrant will make the connection to the hydrant (Fig. 6.)(*The hydrant will be flushed prior to making the connection).* The apparatus driver is the person to call back to the firefighter at the hydrant and ask for water, after they have connected to the intake on the engine (Fig. 7). The apparatus operator will either use hand signals *(if distance and line of sight allow)* or communicate over the radio asking the firefighter still at the hydrant to "Charge the supply line."

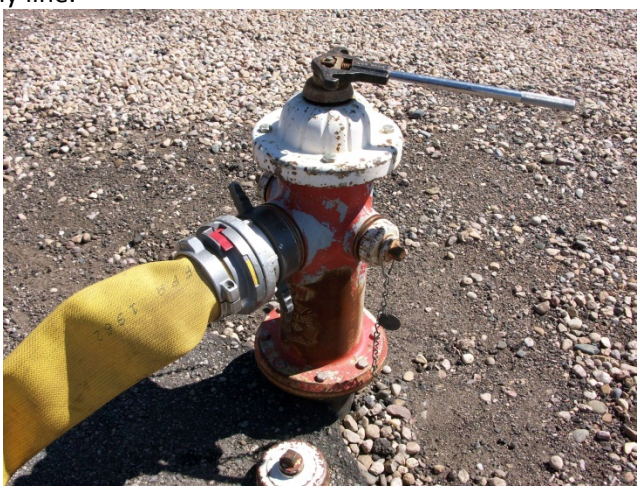

Fig. 6

Fig. 7

#6 The firefighter will fully open the hydrant in a controlled manner allowing the water to fill the hose at a "walking" pace. Once the water supply has reached the apparatus and the operator has made the change from tank water to the external source, they will announce to command the Benchmark of "Water supply established."

#7 Dependent on strategy and tactics the supply line can be laid by the first due engine for its own use as the initial attack engine, or a later arriving engine lays a supply line to an attack engine (or other apparatus) already on scene. (Fig. #8 & #9).

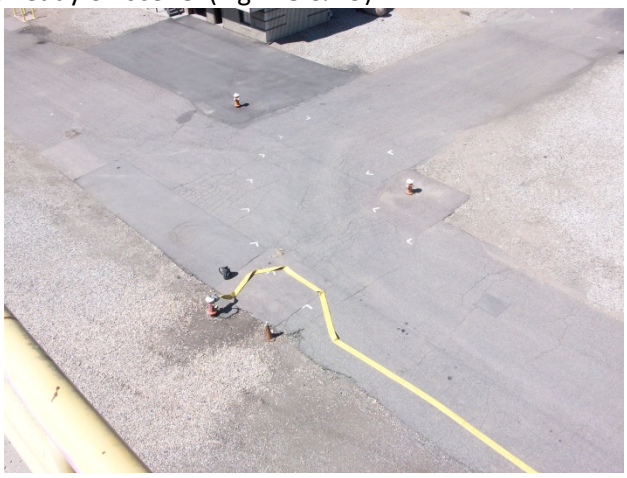

Fig. 8

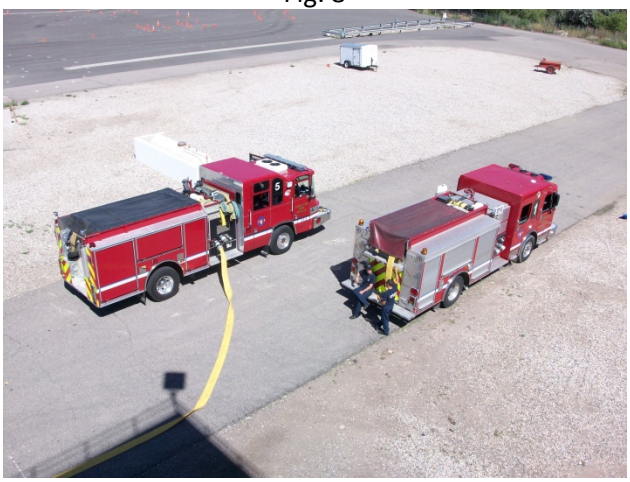

Fig. 9

Special Note: ***A "hand jack" operation may be used in situations where the supply line lay is 100' in length or less. Steps are the same as a traditional forward lay, the exception is that a firefighter is deploying the hose rather than the engine. This is typically done when an engine is getting its own water supply.***

Task #2 -Reverse lay.

#1 Engine arrives at the fire scene or apparatus needing to be supplied. A firefighter will locate the free end of the LDH including the webbing and hydrant bag (Fig. 1). *Note: During a reverse lay the hydrant bag will not be used at the attack engine/fire location. It will need to go with the supply engine to the hydrant location.*

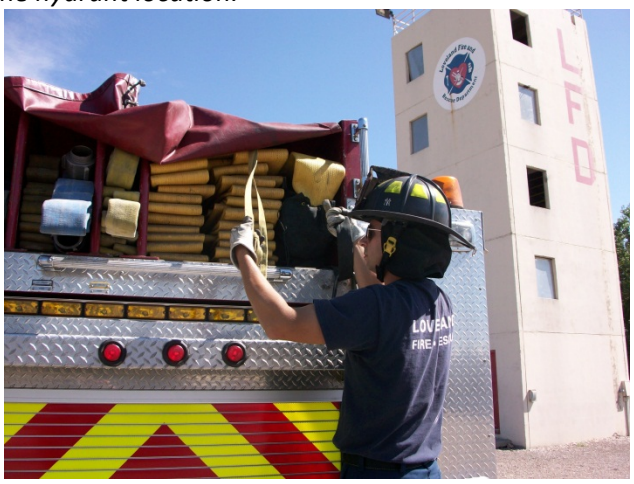

Fig. 1

#2 The apparatus operator of the attack engine will secure the LDH in a manner that ensures that it deploys from the hose bed of the supply engine as it drives away *(It is not recommended that anyone stand on the hose for this purpose).* Once deployment has begun the apparatus operator will connect the LDH to the intake of the attack engine (Fig. 2).

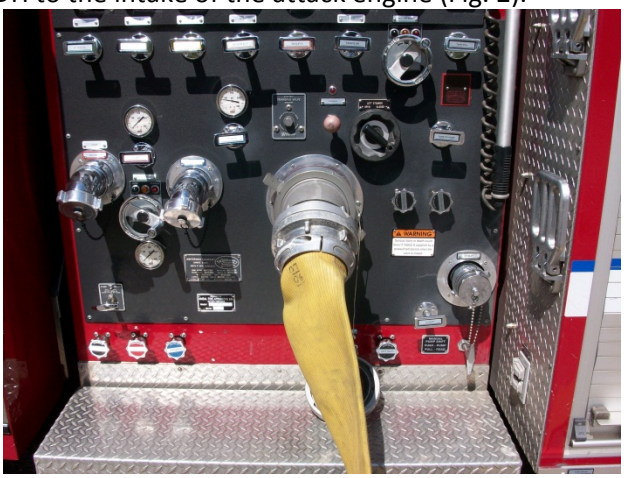

Fig. 2

#3 The apparatus will deploy the supply line by driving away from the fire and/or attack engine towards the hydrant. The firefighter that is at the attack engine will either motion to the driver with hand signals or communicate over the radio to start deploying the hose (Fig. 3).

Fig. 3

#4 Once the supply engine arrives at the hydrant, the LDH will be "broken" at the nearest coupling and connected to the hydrant (Fig. 4).

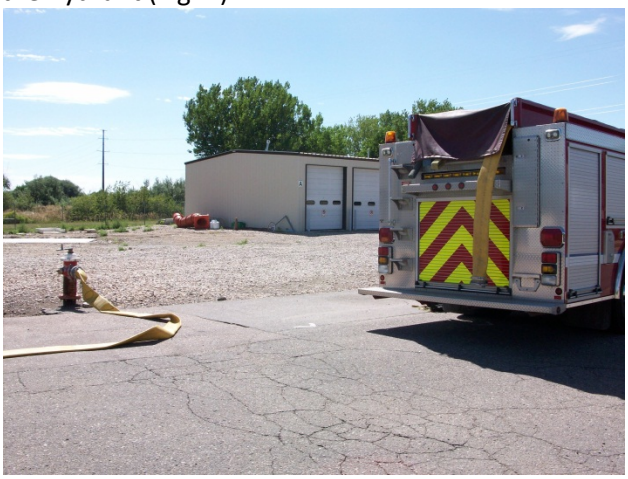

Fig. 4

#5 The supply engine may act as a relay pumper if the hydrant is not expected to be capable of supplying the attack engine with a sufficient water supply on its own *(either because of great distance or insufficient pressure)* (Fig. 5).

- In this case the supply engine now makes a connection to the hydrant using a short section of LDH (*The hydrant can be opened at this point, but water is not to be sent to*

the attack engine). The apparatus operator of the attack engine will either use hand signals *(if distance and line of sight allow)* or communicate over the radio asking the operator at the supply engine to "Charge the supply line."

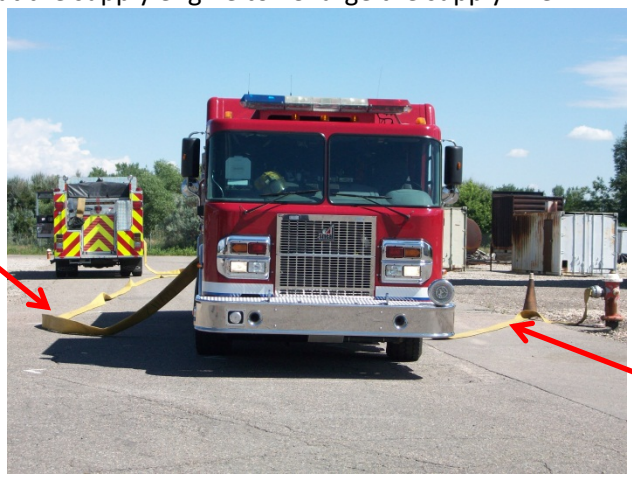

Fig. 5

#6 The apparatus operator will fully open the discharge valve in a controlled manner allowing the water to fill the hose at a "walking" pace. Once the water supply has reached the apparatus and the operator has made the change from tank water to the external source, they will announce to command the Benchmark of "Water supply established."

TASK SKILL INSTRUCTIONAL REQUIREMENTS AND IMPLEMENTATION

This heading includes information about the following:

- Associated power point presentation and lesson plan for instructing on the task (locations on the V drive within *Training Materials of the Fire Training Division Folder*
- Associated PPE required for instructing the task
- Primary progression steps for the development of the task
- Evaluation criteria for observing knowledge, skills and abilities
- Safety criteria when instructing on this task

REFERENCE INFORMATION

This heading includes information about the following:

- NFPA chapter and section reference to this task and professional standards
- Authorship reference for this section
- Instructional materials reference and location for LFR