



Job Performance Review

**Defensive
Water
Supply
Relay
Operations**

**Individual
Level
Competency**

JPR Title

Defensive Water Supply Relay Operations

JPR Number

JPR-DOP-2

Reference

NFPA 1001 – Standard for Firefighter Professional Qualifications
IFSTA Pumping Apparatus Driver Operator Handbook
NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications
IFSTA Essentials of Firefighting
ATFD Standards of Cover and Risk Analysis

Performance Criteria

Despite advances in technology and apparatus safety features, operating a fire apparatus remains a dangerous task. This performance criteria has been established for the operator to demonstrate confidence while operating the apparatus by identifying the elements of operating the apparatus / pump while engaged in a large diameter hose relay.

Time Parameters

Safe and efficient manner

Safety Precautions

Safe operations and control of all equipment

Procedure and Review

Demonstrate / articulate that the relay route is feasible and the target water source is sufficient to sustain operations – a minimum of 1,000 gallons per minute

The optimum distance between engines should be 1,000 feet

A spare 100 foot length of 5 inch hose should be maintained at the apparatus in case a section of hose needs to be replaced

Hose and trucks should be kept to the right side of the road as much as possible to keep the pathway as clear as possible

Once the connections are made, operators should put their pump in gear, transmission in neutral, open incoming and outgoing valves fully and notify OIC or relay leader that they are ready for water

Option – If time is available, a Humat valve should be arranged at the engine as a relay valve so that the engine can be removed from the relay if necessary. Relay valves are no longer a component of a relay by the Strikeforce

Operators should have a 2 ½” inch or larger discharge open to bleed off air. This will also be used as an emergency dump during the operation should the need arise

The team leader or OIC should coordinate the start of the water flow. Operators need to let the leader know when they have received water

Once water is received, place the pump in gear by engaging the transmission

Maximum discharge pressure is 185 psi. Under no circumstances should 185 psi be exceeded.

Until flow operations are fully established, a recommended discharge pressure for initial operations is 135 psi

Minimum residual pressure is 10 psi. If residual is below 20 psi, operators should notify the team leader

Operators should have a sequence chart of the relay to know who they are receiving water from and who they are pumping to

Monitor your gauges and report any issues to the team leader. Be prepared to further refine your pressure settings. Two stage pumps should be placed in volume

For normal relay demobilization, the engine at the fire will be the first unit to idle down to neutral. The team leader will work back to the source engine one at a time until the entire relay has been terminated

Firehouse Software Evaluator Notes

Link to “General Driver Training” or “Driver Operator Pumper”

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