

## WMATA (Metro) Standpipe Fire Department Connection (FDC)

**Purpose:** To develop an uninterrupted water supply for the utilization of METRO standpipe systems.



**Background:** Various configurations, combined with significant lengths and depths of WMATA standpipe systems pose unique operational challenges to MCFRS personnel in their efforts to provide adequate fire flows.

### Operations:

1. Water Supply engine will identify a water supply and support WMATA fire protection systems as soon as possible after arrival.
2. Dependent upon the situation, the first due Engine may:
  - a. Forward lay from the hydrant to a position close to the FDC; or
  - b. Reverse lay from the FDC to the hydrant to establish their own water supply; or
  - c. Take a position on the hydrant to establish their own water supply and hand stretch supply hose to the FDC.
3. Establish water supply from the hydrant to the Water Supply engine.
4. Stretch dual hose lines to the FDC. The 3" hose is preferred for ease of deployment, ease of connection in reduced spaces, and higher test pressures.
5. Before connection to the FDC, inspect connections and swivels, remove blind caps, and check for debris inside.
6. Connect both hose lines to the FDC.
7. Charge one line at a time to supply water to the FDC. The FDC clapper prevents water backflowing from the uncharged side of the connection.
  - a. Fill the system using *hydrant pressure only* – do not throttle up
  - b. If the system does not fill within 10 minutes then notify the Incident Commander
8. Once the system is filled, adjust pump discharge pressure to appropriate levels to support operations; be sure to adjust for elevation changes.
9. Monitor pump panel gauges and radio traffic for adjustments to pump pressures or potential water supply issues.

### Key Operational Considerations

- ❑ If assigned to water supply, immediately begin water supply tasks upon arrival. Do not wait for instruction from command to initiate.
- ❑ A single, 3-inch line supply line will support 500gpm no farther than 600-feet without excessive friction loss and pump discharge pressures.
- ❑ A single, 4-inch supply line will support 800gpm no farther than 1000-feet without excessive friction loss and pump discharge pressures.

- ❑ Each connection has an identification plate to indicate the rise, run, and system location. Cross reference with WMATA map book to assure appropriate location.
- ❑ Station siamese connections near entrances are connected to the standpipes along the platform and in each fire equipment cabinet at platform ends and within stations.
- ❑ When supplying connections at fan, vent, or emergency shafts remember that these shaft gates may be opened for evacuation. Fire service personnel should not enter without direction or approval from the Incident Commander.
- ❑ When filling systems do so at **hydrant pressure** until full. Indicators that the system is full are:
  - a. the sound of the exhausters clappers shutting
  - b. indications of pressure on the pump panel gauges or master intake and master discharge gauges are equal.
- ❑ Look and listen for signs of possible pipe fractures or unexpected loss of pressures while flowing the system. The systems may not be well maintained.
- ❑ Poorly maintained FDC swivels may not rotate. Rather than twisting the hose repeatedly, install a double male adapter into the broken swivel and then a double female adapter to complete the connection.
- ❑ Always supply both inlets of the FDC to ensure adequate water supply and to add redundancy should a hose fail.



<b>FIRE DEPARTMENT DRY STANDPIPE</b>	
<b>SHAFT IDENTIFICATION NO</b>	<b>EB-1</b>
<b>VERTICAL DROP</b>	<b>75'</b>
<b>MAX HORIZONTAL FEET</b>	<b>1175'</b>



**Escape hatch and FDC**