	NORTHERN WAKE FIRE DEPARTMENT **STANDARD OPERATING GUIDELINES**
TITLE: Fill Site Setup	**SECTION/TOPIC:** OPERATIONS
NUMBER: 300-3	**ISSUE DATE:** 7/1/17
REVISION DATES: **3-8-2023**	**APPROVED BY:** Blake Wright **FIRE CHIEF** Darrin Holt **CHIEF OF OPERATIONS**

I. PURPOSE

1. This Standard Operating Guideline defines the steps of properly setting up a fill site for Tankers to supply water to the fire ground.

II. SCOPE

1. This Standard Operating Guideline applies to all personnel within the Northern Wake Fire Department.

III. GUIDELINE

A. Firefighters - Fill-Site Engine Located Next to Tanker Fill-Site

1. Remove the LDH manifold and two 3” x 50-foot fill lines w/ male quick-connect couplings from the engine.

2. Remove 50-feet of LDH supply line and connect it to both the LDH pump discharge and to the LDH manifold intake.

3. Connect the 3” fill lines to the LDH manifold discharge valves and deploy the lines.

4. One Firefighter, dressed in full PPE, should be assigned to each 3” fill line.

5. One Firefighter, dressed in full PPE, should be assigned to the LDH manifold.

6. Once all personnel are in position, the Driver/Operator will proceed with charging the LDH supply line.

7. While the LDH supply line is being charged, the LDH manifold operator will bleed off air by cracking open a LDH manifold discharge valve.

8. Once the first Tanker arrives at the fill site, the two Firefighters will securely connect the 3” Tanker fill lines into the tank inlet valves and will open the valves completely.
9. Once the valves are open, the two Firefighters will back away from the rear of the Tanker.

10. The Firefighter assigned to the LDH manifold will slowly open the LDH manifold discharge valves.

11. Once the Driver/Operator has completed increasing his/her pump discharge pressure, the Firefighter assigned to the LDH manifold will set the LDH manifold pressure relief valve.

12. Once the Tanker is full, the Firefighter will slowly close the LDH manifold discharge valves, and the pressure relief valve will open.

13. After the LDH manifold discharge valves are completely closed, the Firefighters will close the tank inlet valves, disconnect the 3” Tanker fill lines, and signal the Tanker Driver/Operator to proceed back to the dump site.

B. Firefighters - Fill-Site Engine Located Remote to Tanker Fill-Site

1. Remove the LDH manifold and two 3” x 50-foot fill lines w/ male quick-connect couplings from the engine.

2. Remove approximately 20-feet of LDH supply line from the engine hose bed utilizing the hose rope.

3. Secure the LDH manifold around a solid object such as a tree, post, etc.

4. Advise the Driver/Operator to proceed to the fill-site setup area.

5. Once the Driver/Operator reaches the water supply location, connect the LDH supply line to the LDH manifold intake.

6. Connect the 3” fill lines to the LDH manifold discharge valves and deploy the lines.

7. One Firefighter, dressed in full PPE, should be assigned to each 3” fill line.

8. One Firefighter, dressed in full PPE, should be assigned to the LDH manifold.

9. Once all personnel are in position, the Driver/Operator will be signaled, either by radio or by one single air horn blast, to charge the LDH supply line.

10. While the LDH supply line is being charged, the LDH manifold operator will bleed off air by cracking open a LDH manifold discharge valve.

11. Once the first Tanker arrives at the fill site, the two Firefighters will securely connect the 3” Tanker fill lines into the tank inlet valves and will open the valves completely.

12. Once the valves are open, the two Firefighters will back away from the rear of the Tanker.

13. The Firefighter assigned to the LDH manifold will slowly open the LDH manifold discharge valves.

14. Once the Driver/Operator has completed increasing his/her pump discharge pressure, the Firefighter assigned to the LDH manifold will set the LDH manifold pressure relief valve.

15. Once the Tanker is full, the Firefighter will slowly close the LDH manifold discharge valves and the pressure relief valve will open.

16. After the LDH manifold discharge valves are completely closed, the Firefighters will close the tank inlet valves, disconnect the 3” Tanker fill lines, and signal the Tanker Driver/Operator to proceed back to the dump site.

C. Driver/Operator – Fill-Site Engine at Pressurized Hydrant

1. Properly position engine for Tanker fill site operations.

2. Engage parking brake.

3. Chock rear wheels.

4. Engage pump.

5. Open the tank-to-pump valve.

6. Open tank-fill valve.

7. Determine which pump discharge valve is being utilized.

8. Remove the 2 ½” hydrant cap located opposite of the fill site location.

9. Place hydrant wrench on the operating nut, open hydrant, and slightly purge the hydrant.

10. Close the hydrant and connect a closed 2 ½” hydrant gate valve to the open 2 ½” hydrant port.

11. Remove the 4 ½” hydrant cap.

12. Install the LDH x 4 ½” hydrant adapter onto the open 4 ½” hydrant port.

13. Connect the LDH supply line to the LDH x 4 ½” hydrant adapter.

14. Connect the LDH supply line to the LDH pump intake.

15. Open the LDH pump intake valve air bleeder.

16. Open hydrant slowly and completely.

17. Once all air has evacuated from the LDH supply line, close the LDH pump intake valve air bleeder.

18. Open LDH pump intake valve slowly and completely.

19. Once the Tanker fill-site is ready for water, close tank fill valve.

20. Close tank-to-pump valve.

21. Open proper pump discharge valve.

22. Increase throttle to desired pump discharge pressure.

23. Re-set pump discharge pressure relief valve

24. Refill booster tank.

25. Observe pump intake gauge (no less than 10 psi residual pressure and adjust accordingly.

26. If available, set pump intake pressure relief device.

27. If available, set LDH pump intake and LDH discharge valve pressure relief devices.

28. Monitor all gauges continuously.

D. Driver/Operator – Fill-Site Engine at Static Water Source Located Next to Tanker Fill-Site

1. Properly position engine for Tanker fill site operations.

2. Engage parking brake.

3. Chock rear wheels.

4. Remove 6” drafting hose(s) from engine.

5. If using a dry hydrant for water supply, connect the drafting tubes between the dry hydrant connection and the unrestricted pump intake and tighten connections.

6. If drafting directly from the static water source, place a high-volume floating strainer to the end of the drafting tubes, connect the drafting tubes to the unrestricted pump intake and tighten connections.

7. Place the high-volume floating strainer in the static water source.

8. Engage pump

9. Ensure that the engine rpms are approximately 1,300 or above, engage pump primer (no more than 30-seconds).

10. Once pump is primed, determine which pump discharge valve is being utilized.

11. Once the Tanker fill-site is ready for water, open proper pump discharge valve.

12. Increase throttle to desired pump discharge pressure.

13. Set pump discharge pressure relief valve

14. Observe pump intake gauge (no more than 20” Hg) and adjust accordingly.

15. If available, set LDH pump discharge valve pressure relief device.

16. Monitor all gauges continuously.

E. Driver/Operator – Fill-Site Engine at Static Water Source Located Remote from Tanker Fill-Site

1. Safely proceed to the static water source.

2. Travel no faster than approximately 10 mph while laying the LDH supply line near the road shoulder.

3. Properly position relay engine for the connection of the drafting tubes between the static water source and the unrestricted pump intake.

4. Engage parking brake.

5. Chock rear wheels.

6. Remove 6” drafting hose(s) from engine.

7. If using a dry hydrant for water supply, connect the drafting tubes between the dry hydrant connection and the unrestricted pump intake and tighten connection(s).

8. If drafting directly from the static water source, place a high-volume floating strainer to the end of the drafting tubes, connect the drafting tubes to the unrestricted pump intake and tighten connection(s).

9. Place the high-volume floating strainer in the static water source.

10. Engage pump

11. Ensure that the engine rpms are approximately 1,300 or above, engage pump primer (no more than 30-seconds).

12. Once pump is primed, determine which pump discharge valve is being utilized.

13. Once the Tanker fill-site is ready for water, open proper pump discharge valve.

14. Increase throttle to desired pump discharge pressure.

15. Set pump discharge pressure relief valve

16. Observe pump intake gauge (no more than 20” Hg) and adjust accordingly.

17. If available, set LDH pump discharge valve pressure relief device.

18. Monitor all gauges continuously.

Key Positions: Water Supply Section Chief
Fill Site Supervisor
Fill Site Safety Officer

Key Points: Place Water Supply Operations on a separate radio channel
Tanker Driver/Operators should always remain in their apparatus