



CONSTRUCTION ADVISORY: **FIRE PUMP TESTING 2022 CODE**

ISSUE: 2025-001

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**FIRE PUMPS ARE SUBJECT TO
DIFFERENT TESTING
REQUIREMENTS**

BACKGROUND

Fire pump installations are governed by the NYC Building Code (BC) Chapters 9 and the National Fire Protection Association (NFPA) 20-2016, as modified by BC Appendix Q. Automatic fire pumps may serve as the water supply for standpipe and sprinkler systems.

(NFPA 13 section 24.2.3 and NFPA 14 section 7.9.2 & 7.9.3, as modified by BC Appendix Q)

WHAT IS A FIRE PUMP AND WHY DO FIRE PUMPS NEED TO BE SUBJECTED TO FLOW TESTING?

Fire pumps are used as part of many water-based fire protection systems to increase the pressure of a water source when such water source pressure is not adequate. Fire pump field acceptance tests which include flow testing, are required by NFPA 20, as amended by BC Appendix Q 106. Flow testing of fire pumps are required to be conducted to verify that such pump can provide the required flow and pressure to meet the building's standpipe and sprinkler systems demands.

WHAT ARE THE FIRE PUMP TESTING REQUIREMENTS?

Fire pumps are subject to different testing requirements including fire pump field acceptance testing. Fire pump field acceptance testing requirements are set forth in NYC Building Code Chapter 9 and NFPA 20, as modified by BC Appendix Q. Other fire pump testing requirements such as periodic inspection, testing, and maintenance requirements are set forth in NFPA 25.

Fire pumps that are part of the water supply that serve a standpipe system must be operational during the standpipe systems testing. Standpipes are regulated by Chapter 9, Chapter 33, and NFPA 14 as modified by Appendix Q. Standpipe systems shall be tested in accordance with NFPA 14, as modified by BC Q105.

For more guidance on the fire pump testing requirements, see the [Requirements for Installation of Stationary Pumps for Fire Protection Systems](#).

WHAT SHOULD YOU KNOW WHEN CONDUCTING A FLOW TEST FOR A FIRE PUMP FIELD ACCEPTANCE TEST AND FLOW TEST FOR STANDPIPE SYSTEM ACCEPTANCE TEST?

The **Fire Pump Field Acceptance Flow Test** consists of running the fire pump at minimum (churn) rated (100%) and peak (150%) flows. After the pump flow is set, then the pressure at the test header shall be recorded for each flow. A copy of the manufacturer's certified pump test curve must be available during the flow test to identify the proper minimum (churn), rated (100%) and peak (150%) flows to be set during the test. *The flow test results shall be comparable to the manufacturer's certified pump test curve.*



When conducting **Standpipe Systems**

Acceptance Test on a standpipe system served by a fire pump, the fire pump shall be in operation. If the operator decides to conduct the fire pump field acceptance flow test during standpipe systems testing, the flow and pressure of the fire pump at minimum (churn) rated (100%) and peak (150%) flows shall be recorded.

Please note that fire pump field acceptance test flow test results obtained shall not be used to verify standpipe system demand.

- **Fire Pump Field Acceptance Test Form A: Flow Test**

This test form is to be used to record test data obtained during the fire pump field acceptance test for fire pumps serving fire protection systems other than the standpipe system.

- **Fire Pump Field Acceptance and Standpipe System Acceptance Test Form B: Flow Test**

This test form is to be used to record test data obtained during the fire pump field acceptance test for fire pumps serving the standpipe system or combination of sprinkler and standpipe system. This form allows the user to record flow test data from the standpipe or combined standpipe and sprinkler system to verify the system demand as required by NFPA 14, as modified by BC Q105.

*NOTE: If a fire pump is replaced in-kind without modifications to the system, the Department will not witness the **Fire Pump Field Acceptance Test: Flow Test**.*

WHAT SHOULD YOU DO TO PREPARE FOR A FIRE PUMP FIELD ACCEPTANCE TEST?

- Complete all pump and control panel wiring before the test. (NFPA 20-2016 section 14.2.3)
- When required, give advance notice of the fire pump test to FDNY and the local police precinct with the test date, time, and location in case they receive complaints. (NFPA 20-2016 section 14.2.2)



- The permit holder or their authorized representatives shall be present for the field acceptance test and are responsible for having the approved plans on site. (NFPA 20-2016 section 14.2.1)
- Only conduct a fire pump test after the hydrostatic test and walk-through inspection have been completed. Standpipe hydrostatic tests are conducted at no less than 300 psi for 1 hour (Local Law 63/09). (NFPA 20-2016 sections 14.1.2 and 14.1.3)
- Confirm an authorized representative from the fire pump manufacturer is on site at the time of the test. (NFPA 20-2016 section 14.2.1)
- **At the option of the permit holder, the fire pump field acceptance test may be witnessed by a DOB inspector or certified professional.**
- Use the applicable forms to record your test results. See the instructions for information on how to use the [Fire Pump Field Acceptance Test Form A: Flow Test](#) form and the [Fire Pump Field Acceptance & Standpipe System Acceptance Test Form B: Flow Test](#).
- The DOB NOW guide sheet item **StandPipe-Fire Pump (SD)-Fire Pump Test** will show **Status: Pass** in the following conditions:
 1. If only a fire pump test is required and passes.
 2. If only a standpipe test is required and passes.
 3. If both fire pump and standpipe tests are required and both tests pass.