

# 2014 Code Reference Fire Pump Field & Standpipe System Acceptance Test Form: Flow Test

(Utilize for Fire Pumps Serving Standpipe or Combined Standpipe and Sprinkler System)

#### PURPOSE OF FORM

This test form is to be used to record test data obtained during the Fire Pump Filed 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 on the Standpipe or the Combined Standpipe and Sprinkler System to verify the system demand. This form **replaces** Standpipe Fire Pump Test form FP-86.

### INSTRUCTIONS

#### **SECTION 1: General Information**

- Fill in the house address, borough, date of test, and job application number (BIS or DOB NOW).
- Fill in the Pump Information including Pump Manufacturer, Model No., pump capacity, rated hp, and pump type (centrifugal, in-line, etc.).
- Check the appropriate box for the pump drive installed and fill in the motor voltage.

#### **SECTION 2: System Information**

- Check the appropriate box for the type of system that the pump is serving. If the subject fire pump does not serve as a water supply for the standpipe system or the combined standpipe and sprinkler system, DO NOT use this form.
- Check the appropriate box for the standpipe classification.
- Check the appropriate box for the type of standpipe system.
- Check the appropriate box for three-way manifold. The standpipe system tested shall be provided with at least one 3-way manifold equipped with 2½ inch valves with hose valve caps. The standpipe system shall be tested at the hydraulically most remote portion of the system which sometimes may not be the roof if the highest riser is located at an intermediate zone of the building. In buildings with multizone standpipe system, where it is not feasible to discharge water at a (roof) testing manifold, because the hydraulically most remote portion of the system is not located in the roof, supplemental procedures shall be followed to discharge water resulting from the test. See **Note 2** at the end of the form.
- Indicate the number of standpipe risers and fill in the riser diameter.
- Indicate **Yes** if the flush and hydrostatic tests have been conducted and no if it has not been conducted. The field acceptance test shall not proceed If the required Flush and Hydrostatic Tests of the fire pump have not been conducted in accordance with NFPA 20 Section 14.1.
- Indicate Yes if the flushing of the standpipe system has been conducted and no if it hasn't been conducted.
- Indicate Yes if the hydrostatic test of the standpipe system has been conducted and no if it hasn't been conducted.
- Fill in the designed system demands of the standpipe system and sprinkler system (if applicable) in gallons per minute (GPM).
- Indicate the number of water supplies required for the standpipe system or combined sprinkler and standpipe system per BC Q102 & Q105. The system shall be tested with each water supply serving the pumps.
- Indicate the location of the fire pump in the building and the zone and floors that such pump is serving.
- Indicate the location of the hydraulically most remote outlet of the standpipe system and the pipe diameter of the suction side of the pump.
- Check the appropriate box for the electric motor's alternate source of power and automatic switch. If Yes, in addition to
  testing the system with each water supply, the system shall also be tested using the alternate source of power to simulate
  loss of primary source in accordance with NFPA 20, Section 14.2.9, and complete System Test 4 below.

### SECTION 3: Record Fire Pump Field Acceptance & Standpipe System Acceptance Test Data

- System Test 1: Primary Water Supply (Circle One: City Main/Gravity/Suction/Pressure Tank)
  - Record the fire pump flow test data conducted when using primary water supply.
    - Circle the applicable water supply.

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- Fill in the pump flow test data including the flow, discharge nozzle size, pressures, and driver speeds. The fire pump test data shall be recorded at pump's minimum, rated, and peak capacity.
- Record the fire pump flow test data conducted when using primary water supply.
  - Fill in the standpipe flow test data including the flow and the total pressure at hydraulically most remote outlet.
  - Where fire pumps are part of the water supply for a standpipe system, standpipe systems shall be tested to verify standpipe system demand while the fire pumps are operating. Fill in the corresponding fire pump flow rate. Noted that depending on the systems demand, the fire pump flow at the hydraulically most remote outlet may NOT be required to match the fire pump's peak or rated capacity. See **Note 3** at the end of the form.
- System Test 2: If applicable, record the fire pump flow test data conducted when using the secondary water supply. If a secondary water supply is not required to be provided, leave the table blank.
  - Circle the applicable water supply.
  - Fill in the pump flow test data including the flow, discharge nozzle size, pressures, and driver speeds. The fire pump test data shall be recorded at pump's minimum, rated, and peak capacity.
- System Test 3: If applicable,
  - Record the fire pump flow test data conducted using both services supplying the pump. This is applicable for a fire
    pump that is automatically transferring from one source of water supply to another, or when the fire pump is designed
    to run with two water supplies simultaneously.
    - · Circle the applicable water supply.
    - Fill in the pump flow test data including the flow, discharge nozzle size, pressures, and driver speeds. The fire pump test data shall be recorded at pump's minimum, rated, and peak capacity.
  - Record the standpipe flow test data conducted using both services supplying the system. This is applicable when the standpipe system or the fire pump serving the standpipe or combined standpipe and sprinkler system is automatically transferring from one source of water supply to another, or when the standpipe system or the fire pump is designed to run with two water supplies simultaneously.
    - Fill in the standpipe flow test data including the flow and the total Pressure at hydraulically most remote outlet.
    - Where fire pumps are part of the water supply for a standpipe system, standpipe systems shall be tested to verify standpipe system demand while the fire pumps are operating. Fill in the corresponding fire pump flow rate. Note that depending on the systems demand, the fire pump flow at the hydraulically most remote outlet may NOT be required to match the fire pump's peak or rated capacity. See **Note 3** at the end of the form
- **Pump Test 4:** If applicable, record the fire pump flow test data conducted using the alternate source of power to simulate loss of primary source.
  - Circle the applicable water supply.
  - Fill in the pump flow test data including the flow, discharge nozzle size, pressures, and driver speeds. The fire pump test data shall be recorded at pump's minimum, rated, and peak capacity.

#### **SECTION 4: Signature & Witness**

- Circle Yes if the fire pump performed in accordance with the manufacturer's pump characteristic curve or No to indicate
  the fire pump failed the flow test.
- Fill in the name of the representative who set the relief valve. The relief valve is set by the pump manufacture representative at the conclusion of the test.
- Fill in the Contractor information, including name, address, and telephone number.
- Fill in the name of the Licensed Master Fire Suppression Piping Contractor, and signature is required.
- Fill in the name of the Licensed Master Plumber (LMP), and signature is required. Please note the LMP shall only perform plumbing work as defined in the NYC Administrative Code Section §28-401.3. See **Note 4** at the end of form.
- Fill in the name of the representatives who witnessed the test. Please note the test shall be witnessed in accordance with NFPA 20 14.2.1 and 14.2.2, and BC 1704.24.

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