



## **TROY FIRE DEPT. Fire Alarm Acceptance Test Requirements**

The following requirements and procedures are necessary in order for a fire alarm acceptance test to be conducted by the Fire Prevention Division. Depending on the size of the building and the alarm system installed, some of these requirements may not be applicable. Following these requirements will help ensure the efficient use of time and personnel with minimal interruption to the building and its occupants. It is highly recommended that the entire alarm system be tested before the acceptance test with the Fire Prevention Division. This too will help ensure a successful test in minimal time, thereby reducing the chances of failure, and thus eliminating the need for a retest and the payment of associated re-inspection fees. Any questions should be directed to the Inspector in charge.

- Personnel
  - TFD – Enough personnel to accomplish the following:
    - fire alarm control panel
    - conduct waterflow, fire pump, and tamper valves test
    - conduct duct smoke detector test & HVAC/Damper sequencing verification
    - conduct ceiling smoke detector test
    - conduct pull station & firefighter phone test
  - Contractor(s) / Trade(s) – Enough personnel to accompany TFD including:
    - person with operational/programming knowledge at fire alarm panel
    - person conducting waterflow, fire pump, and tamper valves test
    - person with appropriate size ladder & canned smoke conducting duct smoke detector & HVAC/Damper sequencing verification
    - person with appropriate size ladder & canned smoke conducting ceiling smoke detector test
  - Building Management
    - Enough people to unlock doors to tenant suites, mechanical rooms, or areas where alarm devices are located, or
    - Enough keys for TFD to unlock these areas
- Equipment
  - Enough ladders / lifts for access to elevated devices
  - Enough canned smoke or test magnets to test devices
  - Enough pull-station reset keys
  - Enough firefighter telephones
  - Enough spare devices to replace defective/malfunctioning ones
- Preparation
  - Advance notification to occupants of the scheduled test
  - All covers removed from duct smoke detectors
  - Plans showing, or list of, devices installed to be tested
- Operational Sequence
  - Each device will be tested for operation.
  - Alarm device activation will initiate audio / visual (A / V) devices throughout building, or if a hi-rise, on fire alarm floor, one floor below, and two floors above



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(four floors total) as well as initiate appropriate sequence of events & unlock doors.

- Pull station: A/V
- Ceiling smoke detector: A/V
- Atrium smoke detector: A/V & HVAC control (smoke removal, stairwell pressurization, etc.)
- Duct smoke detector: A/V & HVAC control (smoke removal, stairwell pressurization, etc.)
- Waterflow: A/V & HVAC control (smoke removal, stairwell pressurization, etc.)
- Slow whoop with pre-approved voice message for high-rise
- Temporal Code-3 for low-rise
- Fire Alarm Control Panel (FACP)
  - Should have capability to stack multiple alarms
  - Each alarm to be reset at the fire alarm control panel at-will
  - Each alarm to be silenced at the fire alarm control panel at-will
    - Audio only on affected floors. Strobes remain on until reset.
- Device Annunciation at FACP
  - Each activated alarm device to annunciate as an alarm condition with device description & location
  - Each failure/interruption of a device to annunciate as a trouble condition
  - Each change in status of associated equipment to annunciate as a supervisory condition, i.e., fire pump phase reversal, stairwell pressurization fans on, etc.
  - Outside A/V to operate only on waterflow alarm
- TFD Test Procedure
  - Evaluate audio-visual coverage throughout building
  - Disable audio for remainder of the test
  - Test every initiating device for alarm, i.e., every smoke detector, duct smoke detector, pull station, heat detector, waterflow, etc.
  - Test auxiliary systems. If equipped, for alarm
  - Test fire pump running, if equipped, for alarm
  - Test fire pump power for phase reversal
  - Test every tamper valve for supervisory
  - Spot-check initiating devices and A / V devices for trouble
  - Test public address system for audibility and clarity

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