# Technical Guide

# High-Rise Scenarios

**Basis**

Updated 04/11/2024

NFPA 4 requires that all high-rise buildings undergo testing under emergency power (emergency generator power only) for purposes of evaluating the function of existing and new integrated systems that provide fire safety and life safety. NFPA 4 further stipulates that the scheduling of this testing is the responsibility of the property owner, and the test must be carried out by a Third (Jd) Party Integrated Systems Testing Team possessing the qualifications necessary to oversee the function of the integrated systems under emergency power.

**IMPORTANT**

A **High-Rise Scenario inspection** is not intended to replace any required Fire Safety inspections, which includes all Fire/Building Finals and all Fire trades (Fire Sprinkler, Fire Alarm, and Fire Underground). All Fire inspections must be completed prior to the High-Rise Scenario inspection.

**Qualifications**

The 3rd Party Integrated Systems Testing Team (3rd party life safety specialist) must be comprised of members familiar with fire safety and life safety systems and their operation and is generally comprised of, but not limited to, the following:

1. Designated T earn Leader (This role is required)
    a. A designated team leader is required on all projects involving a high-rise scenario and this representative must be familiar with fire safety and life safety systems as well as the details of the project itself.
2. General Contractor

a. The general contractor, or a representative from the general contractor, should be on site for the high-rise scenarios.

3. Electrical Contractor

    a. Responsible for cutting Tampa Electric Company (TECO) power to the building during a high-rise scenario and overseeing the function of all emergency lighting and electrical components.

4. Fire Protection (Fire Sprinkler) Contractor

    a. Responsible for overseeing the function of the fire sprinkler systems and its activation.

5. Fire Alarm Contractor

    a. Responsible for overseeing the fire alarm devices, horns, strobes, etc. and how they communicate with the fire alarm panel.

6. Mechanical Contractor

    a. Responsible for overseeing the operation of the fire and smoke dampers and smoke control devices.

7. Elevator Contractor

    a. Responsible for overseeing the function of all elevators under emergency power.

# High-Rise Scenario #1 (Required)

High-Rise Scenario #1 is required, not optional. During this scenario, the 3rd Party Integrated System Testing Team must disconnect TECO power to the building from the street and demonstrate the following:

1. Power transfers from normal power to emergency power (generator power) within ten (10) seconds as required by code.

2. All life safety systems, including the Fire Service Elevator(s), function properly under emergency power.

3. Emergency lighting remains operational, and emergency lighting activates in accordance with what is shown on the approved Life Safety Plans and approved Electrical Plans.

# High-Rise Scenario #2 (Required)

High-Rise Scenario #2 is required, not optional, and must take place under emergency power (generator power), with TECO power to the building disconnected.

During this scenario, the 3rd Party Integrated System Testing Team must activate the Inspector Test Valve (ITV) to simulate water flow from an open fire sprinkler head and demonstrate the following:

1. The Fire Alarm Panel activates within ninety (90) seconds of detecting water from the ITV.
2. The Fire Alarm Panel reports the proper location of the ITV.
3. The Fire Alarm System activates two (2) floors above and one (1) floor below the floor where the ITV was opened (the incident level).
4. All Life Safety Systems continue to communicate with each other.
5. The Fire Service Elevator operates as required in an emergency, per code.
6. The main Fire Alarm Panel reports all fire safety and life safety systems and devices communicate properly including, but not limited to, the following:
    a. Fire and smoke dampers
    b. Stair pressurization
    c. Fire Alarm notifications
    d. Speakers, horns, and strobes
    e. Door holds release
    f. Elevation pressurization (if applicable)
    g. Access control disengages

# High-Rise Scenario #3 (Required)

High-Rise Scenario #3 is required, not optional, and must take place under emergency power (generator power), with TECO power to the building disconnected.

During this scenario, the 3rd Party Integrated System Testing Team must simulate smoke in a lobby and demonstrate the following:

1. The Fire Alarm System activates upon detecting an incident from the lobby smoke detector.
2. The Fire Alarm Panel reports the proper smoke detector and its location.
3. The Fire Service Elevator(s) recall properly, per code.
4. The Elevator Panel in the Fire Command Center reports the correct location of the Fire Service Elevator(s) at the beginning and end of elevator recall.
5. The Fire Service Elevator operates as required in an emergency, per code.
6. The main Fire Alarm Panel reports all fire safety and life safety systems and devices communicate properly including, but not limited to, the following:
    a. Fire and smoke dampers
    b. Stair pressurization
    c. Fire Alarm notifications
    d. Speakers, horns, and strobes
    e. Door holds release
    f. Elevation pressurization (if applicable)
    g. Access control disengages

# Scenario Notification and Documentation

Prior to performing High-Rise Scenarios 1-3, a team leader from the 3rd Party Integrated Systems Testing Team must notify City staff via email that they intend to perform these scenarios.

Notice must be sent three (3) business days prior to the testing and must be sent to the following email addresses:

1. Jay.Traina@tampagov.net
2. David.Cogan@tampagov.net
3. Steven.McCullars@tampagov.net

After performing High-Rise Scenarios 1-3, a team leader from the 3rd Party Integrated Systems Testing Team must furnish to the City of Tampa a report of the integrated systems test results. This team leader must possess considerable knowledge of fire safety and life safety systems and furnish the report to the City as follows:

1. Log into Accela and go to the BLD permit
2. Click on "Record Info"
3. Click on "Attachments"
4. Click on the "Add" button at the bottom of the screen
5. Click on "Attachments" at the bottom of the screen
6. Click on "Browse" to select your file; or drag and drop the file into the box on the screen
7. Select "Other Documents" as the document type
8. In the "Description" field under "Other Documents," enter: "Integrated Fire Safety Systems Test Results"
9. Click on "Upload and Validate" to finish the upload process

After uploading the integrated systems test report to Accela as outlined above, the team leader must notify City of Tampa Fire staff that the testing report has been uploaded. Notification must be made via email sent to the following addresses:

1. Jay.Traina@tampagov.net
2. David.Cogan@tampagov.net
3. Steven.McCullars@tampagov.net