



Emergency Responder Coverage Enhancement System - DAQ 3.0 Standard

Standard

Richland Municipal Code Title 20.05.025

NFPA 1225: Standard for Emergency Services Communications, 2022 Edition

Practice

DAQ 3.0 Coverage – New Construction Standard

1. Code Authority

All new construction shall provide radio coverage for emergency responders in accordance with:

- **NFPA 1225: Standard for Emergency Services Communications**, 2022 Edition
- **Richland Municipal Code (RMC) 20.05.025**

2. Mandatory Testing Criteria

The following **types of commercial buildings** must undergo interior radio coverage testing when the **building shell is fully enclosed** or the project reaches approximately **80% completion**, as determined by the **Fire Marshal's Office**:

- a. Buildings with a total area of **50,000 square feet or more**
- b. Buildings with **one or more basements**
- c. Buildings with **below-grade levels**
- d. **Underground buildings**
- e. Buildings that are **five stories or taller**

3. Testing Coordination

The general contractor is responsible for initiating testing by contacting the Richland Fire Marshal's Office at the appropriate project stage.

4. Compliance Determination

Final determination regarding compliance and the requirement for a DAQ 3.0 radio enhancement system will be made by the **Authority Having Jurisdiction (AHJ)**, the Richland Fire Marshal.

Guide

DAQ 3.0 Radio Coverage Testing Procedure During Construction

1. Plan Review and Preliminary Assessment

During the review of newly submitted construction building plans, the Richland Fire Marshal's Office will assess the potential need for a DAQ 3.0-compliant radio coverage system.

2. Testing Trigger Point

If a DAQ 3.0 system is identified as a potential requirement, radio coverage testing will be conducted when the building reaches approximately **80% completion**.

3. Contractor Responsibility

It is the responsibility of the **general contractor** to contact the **Richland Fire Marshal's Office** to schedule and coordinate the DAQ 3.0 testing at the appropriate construction milestone.

4. Testing Parameters

- Testing will be conducted using the **Southeast Communications (SECOMM) Talk Group: Fire 3**.
- A **20-grid per floor** testing pattern will be used to assess DAQ 3.0 coverage throughout the building.
- Each grid will receive a **PASS/FAIL rating** based on whether it meets or exceeds DAQ 3.0 standards.
- General building areas shall have a 95% floor area radio coverage pass rate and critical areas must have a 99% pass rate as per NFPA 1225, 18.8.3 & 4.

5. Review and Determination

- Test results will be reviewed by **City of Richland Radio Maintenance** personnel.
- The final determination regarding the requirement for a DAQ 3.0 radio system will be made by the **Richland Fire Marshal**, acting as the **Authority Having Jurisdiction (AHJ)**.

Radio Coverage System Standard – DAQ 3.0 Compliance

1. Determination of Requirement

The Fire Marshal's Office will evaluate the need for a Delivered Audio Quality (DAQ) 3.0 system based on the recommendations provided by Radio Maintenance. This determination will be made in accordance with NFPA 1225 standards, and the specific communication needs of the building.

2. Plan Submittal

If a DAQ 3.0-compliant system is deemed necessary:

- A complete set of design plans shall be submitted to the Fire Marshal's Office for review and approval.
- The submittal must include detailed manufacturer specifications and documentation for all system components (e.g., BDAs, antennas, cables, etc.).

3. Plan Review and Installation Authorization

- The Fire Marshal's Office will review the submitted plans for compliance.
- Once approved, authorization will be granted for system installation.

4. System Testing and Final Approval

- Upon installation, the system must undergo final acceptance testing.
- Testing will verify that the installed system provides DAQ 3.0 or better coverage throughout the required areas, as required in NFPA 1225.
- Any areas failing to meet DAQ 3.0 will require remediation before final approval is granted.
- Building occupancy will be held under a Temporary Certificate of Occupancy with 180-day renewals until final acceptance testing is approved.

More details on ERRCS system requirements can be found by visiting the Richland Fire and Emergency Services' web page, under Fire Marshal > Developer Information.