**Emergency Responder Communications Enhancement System (ERCES)**

**Site Inspection Checklist**

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| **Revision History** |
| **Revision Date** | **Section/Nature of Revision** |
| **10/29/24** | Document Issued |

**Fire Authority Having Jurisdiction (AHJ) Inspection:**

* Approved drawings, operation manuals and maintenance manuals onsite.
* The following representatives are onsite:
* Building Owner Representative
* Electrical Contractor
* ERCES Installer (systems integrator)
* Fire Alarm Contractor
* Fire AHJ
* Enclosure door marked “BDA” or “ERCES” (2-inch white letters on red background).
* Fire resistive enclosure openings/penetrations are sealed.
* Survivability path level per approved design.
* System components per approved design for manufacturer and part numbers.
* Signal booster enclosure painted read and labeled with:
* Permit number
* Service provider name
* Telephone number
* Conduit/raceways installed per approved design.
* Backbone and donor antenna cables installed per approved design.
* Distribution antennae installed/located per approved design.
* Lightning protection per NFPA 780.
* Repeaters, transmitter, signal booster NEMA 4-/4X enclosure.
* Battery components in minimum NEMA 3R-type enclosure.
* Primary power source supplied from dedicated circuit.
* Circuit breakers are labeled “BDA” or “ERCES” and colored RED.
* Breaker lock(s) installed.
* Primary power source connection is permanently installed.
* Lead in surge protection provided for amplifiers.
* Secondary power source is verified per the approved design:
* Batteries are labeled with the install date
* Panels, amplifiers and battery systems are grounded per NFPA 70.
* Fire alarm supervises the following items (within 3 minutes):
* Circuit integrity
* Antenna malfunction
* Signal booster failure
* Active system component failure
* Low-battery capacity at 70 percent of operating capacity
* Loss of normal AC power
* Failure of battery
* Dedicated annunciator panel indicates the following (within 3 minutes):
* Normal AC power
* Signal booster malfunction
* Battery charger failure
* Low battery capacity
* Donor/distribution antenna malfunction
* Active system component malfunction
* Circuit integrity monitored
* Dedicated annunciator panel located remotely from ERCES enclosure.
* Placard posted at the FACP: “*This building is equipped with an Emergency Radio Communications Enhancement System*” (1-inch-high white letters on red background).
* Information binder provided next to the BDA including:
* As-built drawings
* Manufacturer’s data sheets and specifications
* Post-install RSS test (may defer to post-inspection)
* Final signal strength measurement (dBm)
* Final RTA (may defer to post-inspection)
* Maintenance contract
* Final RTA (may defer to post-inspection)
* Maintenance Repair Log

**Electrical Inspection**

* Rough/final electrical inspections approved.

**Acceptance Test**

* Equipment is onsite to access BDA program and adjust levels/settings.
* All equipment is properly grounded per TIA 607/NFPA 70.
* Donor antenna and mast grounded.
* Donor antenna surge protection installed.
* Acceptable dB levels are verified.
* Verify noise floor does not rise more than 1.5 dB at the donor antenna.
* System components compatible with the Public Safety Radio System.
* Signal strength inbound shall be a minimum of -95 dBm per NFPA 1225.
* Signal strength outbound shall be a minimum of -95 dBm per NFPA 1225.
* Minimum of 20 dB isolation above booster gain.
* FCC licensee approved installation.

**Post Final/Acceptance Requirements**

* Completed CORCC submitted for approval and returned:
* Posted in durable manner in FACP room or main site office
* Final RTA obtained from PCR&T.
* Post-installation RSS test results provided.
* FCC transmitter registration provided.