December 17, 2015

Municipal Managers

Subject: Local Amendment to Building Code for Bi-Directional Amplifiers in Facilities

Dear Colleagues:

This is a follow-up to my letter dated May 8, 2015 referencing a local amendment to the building code for Bi-directional amplifiers (BDAs) in facilities.

As you are aware, the Office of Regional Communications and Technology (ORCAT) identified that some of the interference to the County’s public safety radio system was the direct result of the installation of BDAs that were not configured correctly. Bi-directional amplifiers are signal boosters that are primarily used to solve coverage problems in impenetrable areas such as buildings, tunnels, parking garages, and underground areas. When configured correctly, a BDA is an important device because it assists our first responders with communication in these impenetrable areas in an effective manner.

Since the identification of issues with BDAs, ORCAT has been working with the Broward County Board of Rules and Appeals (BORA) on a local amendment to the building code to address the use and configuration of any bi-directional amplifiers that are installed in certain buildings and facilities in Broward County.

Please be advised that the Broward County Board of Rules and Appeals has developed a local amendment to Chapter One of the building code to establish county-wide requirements to lessen the possibility of two-way communication enhanced public safety booster systems from impacting the County’s public safety radio system. This amendment is scheduled for public hearing on January 14, 2016, and if adopted, the law would become effective for new installations on April 1, 2016. Attached is correspondence from the BORA on this local amendment.

We look forward to your support on this initiative. If you have any questions, please feel free to contact me or Alphonso Jefferson, Jr., Assistant County Administrator at ajefferson@broward.org.

Thank You.

Bertha Henry,
County Administrator

Attachment

cc: Broward County Board of County Commissioners
Alphonso Jefferson, Jr., Assistant County Administrator
Brett Bayag, Acting Director, Office of Regional Communications and Technology
Leonard Vialpando, P.E., Director, Environmental Licensing and Building Permitting Division
Broward County Consolidated Communications Committee

Broward County Board of County Commissioners
Mark D. Bogen • Beam Furr • Dale V.C. Holness • Manny Kiar • Chip LaMarca • Stacy Ritter • Tim Ryan • Barbara Sharief • Lois Wexler
www.broward.org
December 16, 2015

Ms. Bertha Henry
County Administrator
115 South Andrews Avenue, Room 409
Ft. Lauderdale, Fl. 33301

Subject: Local amendment to Building Code for Bi-Directional Amplifiers in Facilities

Dear Ms. Henry:

Please be advised, that in accordance with your request, dated May 8, 2015, we have developed the attached local amendment to Chapter One of the building code as proposed new section 118, “Two-Way Radio Communication Enhance Public Safety Signal Booster Systems.” The law will establish county-wide requirements to lessen the possibility of two-way radio communication enhanced public safety signal booster systems impacting the public safety radio system. We wanted to provide you with an advance notice that the Board of Rules and Appeals will hold a public hearing on the proposed code changes on January 14, 2016, and if adopted, the law would become effective for new installations on April 1, 2016. The development of this amendment follows some 13 hours of committee meetings of stakeholders and reflects a unanimous vote.

Should you have questions, please let me know. Legal inquiries can be referred to Chuck Kramer, Board attorney, who can be reached at 954-462-1431. Thank you.

Sincerely,

James DiPietro
Administrative Director

cc: Members of the Board of Rules and Appeals (via e-mail)
Members of the Ad Hoc Committee to address Uniform procedures for Installation of Bi-Directional Amplifiers (via e-mail)
Charles M. Kramer, Board of Rules and Appeals attorney (via e-mail)

Attachment: 118.1 proposed code amendment.

G:\SHARE\2015 BR&A\correspondence\B. Henry.Local Amend to BDA.121615.doc
Section 118 Two-Way Radio Communication Enhanced Public Safety Signal Booster Systems

118.1 GENERAL:

118.1.1 The Two-Way Radio Communication Enhancement Public Safety Signal Booster System shall be installed as per NFPA 1-11.10, NFPA 70, and NFPA 72. Any such system installed on or after April 1st, 2016 shall be adaptable for both 700/800 MHz p25 (association of public safety communication officials, project 25).

118.1.2 The Authority Having Jurisdiction (AHJ), in Broward County, for the Two-Way Radio Communication Enhancement Public Safety Signal Systems has two (2) permitting entities and multiple frequency licenses as follows:

1. The Installation and Wiring shall comply with the local municipality Building and Fire Departments permitting process and shall be approved by the local and county FCC Licensee prior to installation.

2. The FCC Licensees are:
   - Broward County ORCAT
   - City of Coral Springs
   - City of Fort Lauderdale
   - City of Hollywood
   - City of Plantation

118.1.3 The AHJ shall determine if a new building or existing building shall require that a two-way radio communication enhanced public safety signal booster system be installed to comply with NFPA 1-11.10.1. The Building owner shall install a public safety signal booster to meet this requirement if so directed.

118.1.4 DESIGN: For new buildings, a certificate of occupancy shall not be issued until the AHJ determines that the building is in compliance with NFPA 1-11.10.1. It is recommended that the local Development Review Committee (DRC) notify the new building owner, architect, and engineers of this requirement in writing before the building is designed. A design package, comprising block level diagrams, materials submittals, and coverage measurements and predictions are required. Sufficient and substantial engineering design and support information and data shall be submitted with the application. A stamped submittal from an Engineer, with training and experience in electrical engineering, shall also be required.
118.1.5 To the extent authorized by law, Distributed Antenna Systems Integrators with Public Safety and/or Communication installation and repair experience, as a sub-contractor in association with qualified electrical contractors, and Fire Alarm contractors, may install or repair Two-Way Radio Communication Enhancement Systems. Should the contractor of record fail to have radio communications installation and repair experience with Distributed Antenna Systems, the contractor of record shall sub-contract the installation or repair of non-fire alarm function to a qualified company, having knowledge of Radio communications installation and repair.

118.2 PERMIT DOCUMENTATION:

118.2.1 The following documentation shall be required for permitting a “Two-Way Radio Communication Enhancement System”:

1. City and County FCC Licensee shall approve proposed installation of Two-Way Radio Communicating Enhanced Systems prior to installation in writing or by stamping documents submitted for review.

2. City and County written approval or stamped documents shall be provided to the local Fire Prevention Bureau office at the time of plan submittal and prior to plan review.

3. Plans shall comply with FBC 107.e, NFPA 1, 1.7, NFPA 70, and NFPA 72.

4. Sealed floor plans showing radio coverage for critical and general areas using industry standard radio frequency computer generated propagation modeling.

5. Schedule of signal strength as per NFPA 72 or as agreed to by the Fire Code Official in consultation with the FCC licensee in writing.

6. Schedule of the system radio frequencies or band of frequencies.

7. Notation that the system is upgradable for frequency band coverage changes including at a minimum both 700/800 MHz.

8. Plans shall show that the BDA enclosure shall be painted red with 2” high contrasting letters. Include the following information:

   a) Fire Department Signal Booster
   b) Permit Number
   c) Serviced by: Vendor name and telephone

118.3 SYSTEM NOTIFICATIONS:

118.3.1 The AHJ’s for the FCC licensee and Broward County Office of Regional Communications and Technology (ORCAT) shall be notified in writing of the following events by the permit holder, the system vendor, and or the building owner. The AHJ for the FCC licensee shall approve the date and time and may request that the AHJ shall be present during the following events.
1. Initial system testing, with date and time start and finish.
2. Periodic system testing, with date and time start and finish.
3. System placed in operation with date and time.

118.4.2 PRIOR TO THE INITIAL TESTING:

1. The vendor shall provide the system's settings prior to the initial system testing as accepted by the AHJ, FCC Licensee and ORCAT. The AHJ may ask for additional information prior to testing.

2. The system shall remain "off the air" until the initial testing with AHJ, FCC Licensee, ORCAT, and the Fire Code Official are ready to begin and provide their approval.

118.5 ANNUAL TEST

118.5.1 In addition to the annual fire alarm test, an annual test and report, in compliance with NFPA 72 Chapter 14, shall be completed by a qualified company having the knowledge of RF installation with training and experience of two-way radio communication enhanced radio systems to insure that the original installed system is still in compliance.

118.5.2 ANNUAL TEST REPORT:

The annual test report shall be maintained with the fire alarm log book and copies shall be submitted to the local AHJ and to City and ORCAT for review. All problems found, with any corrective action(s), shall be noted in the test report, along with the name and license number of the Fire Alarm Contractor and sub-contractor Inspection Company.

118.6. SYSTEM MONITORING AND MAINTENANCE:

1. Any Public Safety Signal Booster system installed in a premise shall be tied into a fire alarm system for monitoring.

2. In case of failure, the building owner shall be notified within two (2) hours and he/she shall cause to occur an inspection of the system. If a trouble condition is found the system shall be repaired within 48 hours of notification. If such repair proves to be longer in time or impossible to perform, a notification to the Fire Marshal shall be made indicating the failure of the system, so that in case of emergency the system shall not be relied upon by the First Responders.

3. Any system installed shall have a service level agreement with a responsible company. Once the system is repaired the service company shall notify both the building owner and the fire marshal.