

July 6, 2020

DAS/BDA Systems Designers, Installers, and Maintenance Firms
[Distributed by email]

Re: Message from Seattle Fire Marshal Regarding New Regional Fire Code Provisions and Reporting Forms

DAS/BDA Systems Designers, Installers, and Maintenance Firms,

You are receiving this email because you are listed as a “company email contact” in our system “The Compliance Engine” or because you have participated in meetings of our Regional Radio Testing Advisory Group. Please feel free to forward this message to others in your company and industry who should be aware.

Regional Standardization of Codes and Processes Related to DAS Commissioning and Annual Testing

As you are probably aware, an Advisory Group consisting of representatives from Fire Departments, Radio System Operators and consultants including engineering/radio design and installation firms have been meeting since April 2018. The goal of the regional effort has been to enhance in-building radio communication for first responders and provide clarity and consistency in fire code requirements across jurisdictions.

- Regionally consistent fire code provisions (Section 510). Many cities including Seattle will be adopting the attached modifications to Section 510 of the International Fire Code (2018). The 2018 Fire Code will become effective state-wide on or after November 1, 2020.
- Regionally consistent forms for commissioning and annual testing. Many jurisdictions including Seattle will also require commissioning and annual testing to be reported using standard regional forms available in www.thecomplianceengine.com.
- In Seattle, the Fire Marshal is allowing early use of the 2018 SFC provisions in Section 510 (see attached). These provisions achieve the equivalent fire and life safety benefits as the 2015 Seattle Fire Code.

Highlights of Section 510 of the new 2018 Seattle Fire Code

1. **Scoping provisions** – the International Fire Code (IFC) requires that all buildings are required to have in-building radio systems except buildings that have a wired communication system (firefighter telephones) or when the *fire code official* determines that radio coverage is not need. Our recommendation provides specific criteria when in-building radio systems are required that balance risk and need and provide predictability for developers.
2. **BDA** – the IFC allows either a broadband or channelized BDA. PSERN will only allow channelized BDA’s. The proposed changes will only allow for channelized BDA’s unless specifically approved by PSERN.
3. **Enclosures** – where the IFC requires certain equipment to be enclosed by NEMA rated enclosures, the proposed changes allows for equivalent alternatives.
4. **Grid squares** – where the IFC specifies the division of building floor plate into 20 equal grid squares, the proposed changes limits the size of a grid square to 6,400 s.f.
5. **Documentation** – the IFC does not require that any documentation of the system be maintained on site which has proved to be a costly issue for ongoing testing. The proposed change requires that documentation of the system be maintained on site.
6. **Protection of wiring** – the IFC does not require protection of any of the wiring. The proposed change requires that the “backbone” wiring be protected to the same level as required for interior stairs or shafts.
7. **Signage** – there is no signage requirement in the IFC. The proposed changes require signage to identify the building is equipped with an in-building radio system, and where the control equipment is located.
8. **Streamlined annunciation requirements** for the BDA system on the fire alarm panel.

9. **Confidence Testing** – the IFC requires annual confidence testing to be performed exactly the same as the original commissioning testing. The proposed change provides an alternate testing path when documentation exists that would substantially reduce the cost without sacrificing verification
10. **Delivered Audio Quality (DAQ)** – this measure is introduced with the 2018 International Fire Code.
11. **Coverage requirements for the grid square test** are 90% for non-critical areas in Seattle and 99% for critical areas.

Submitting Test Results to SFD Regarding Commissioning and Annual Testing

- **Submit tests to SFD:** Use our 3rd party vendor [The Compliance Engine \(TCE\)](#). Enter test results into the system. Here are pdf versions of the reporting webpages for your reference:
 - Report of Commissioning/Acceptance Testing of DAS <https://www.seattle.gov/fire/business-services/systems-testing#systemstestingforms>
 - Report of Annual Testing of DAS <https://www.seattle.gov/fire/business-services/systems-testing#systemstestingforms>
- **Coordinate testing with Seattle Radio Shop.** Please call about one week prior to testing at 206-386-1213 to arrange to borrow portable public safety radios and to schedule a time to measure signal level received as part of testing.

Additional Resources

- Collection of relevant documents for building owners and DAS installers/maintenance companies: <https://www.seattle.gov/fire/business-services/systems-testing#bdadasemergencyradiocommunications>
- Client Assistance Memorandum #5971 “Testing of Fire Protection Systems and Emergency Responder Radio Amplification Systems” https://www.seattle.gov/Documents/Departments/Fire/Business/CAM5971-TestingFireProtsys_English.pdf
- 2018 Seattle Fire Code Section 510 https://www.seattle.gov/Documents/Departments/Fire/Business/2018_SFC_510.pdf

If you have additional questions, please email SFD’s Fire Prevention Manager, Karen Grove, at karen.grove@seattle.gov.

We are grateful for the partnership with building owners and DAS/BDA designers, installers and maintenance professionals related to provision of in-building radio coverage for first responders. On behalf of SFD, thank you and have a safe day.

Respectfully,



Assistant Chief Timothy J. Munnis, Fire Marshal
Seattle Fire Department

TJM:kg