



OREGON FIRE CODE

Joint Policy Bulletin

A collaborative service to provide consistent and concise application of Oregon's fire prevention and life safety regulations.

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Initiating: Joint Policy Bulletin No. 0002

Subject: Emergency Responder Radio Coverage (ERRC)

Code References: 2014 Oregon Fire Code (OFC) Section 510, 1103.2

Background: The ERRC provisions require that all buildings have approved radio signal coverage for emergency responders. Approvable radio signal coverage is based on the ability of public safety communication frequencies and systems to transmit a signal inside and outside of buildings. In some cases, the radio signal strength provided through public emergency communication infrastructure is adequate and no additional requirements would be necessary.

Building construction features and materials can have a negative impact on emergency personnel communications by blocking critical radio signals. If testing determines a lack of radio signal strength through the building, then steps must be taken per OFC Sections 510 or 1103.2, in addition to steps taken pursuant to the building code provisions, to address radio signal coverage deficiencies. In the event signal strength is inadequate, designers can give consideration to a number of remedies. One, exterior construction materials that allows for better penetration of radio signals. Two, install Bi-Directional Amplification (BDA), Distributed Antenna Systems (DAS) or other approved equipment and technology. Three, work with the local fire code official to approve alternate equipment and methods of compliance.

There are additional code reviews being performed by state agencies related to ERRC. There are proposed mid-cycle code proposals that are also under review. Changes made to ERRC provisions in the OFC will be accomplished through the appropriate code amendment process as outlined in administrative rules coupled with notification and input from affected stakeholders.

Advice: The OFC provisions regarding ERRC address the reliability of radio signals used by emergency fire, medical, and law enforcement personnel. In new and existing buildings, compliance with ERRC coverage requirements as described in OFC Sections 510 and 1103.2 will continue to be prescribed by the local fire code official.

Any waiver for, or alternate to these coverage requirements is at the discretion of the fire code official. There are additional temporary rule *construction* requirements that may be applicable under the Oregon Structural Specialty Code (OSSC) which should be coordinated with and approved by the local building official.

The ERRC provisions in the 2014 OFC remain unchanged. These provisions continue to be enforceable by the fire code official. At the discretion of the building official, the issuance of a permit or certificate of occupancy *may* be delayed, in accordance with ORS 455.485 and OSSC 105.4 and 111, until the fire code official's advice is obtained. We strongly encourage local fire code officials to coordinate closely with their local building officials to understand any plan review, permits, or inspections the building official may require when ERRC signal boosting equipment is necessary.

Additionally, signal boosting equipment must be approved by the Federal Communications Commission (FCC) license holder for the frequencies being boosted. The FCC license holder may require specific equipment, agreements, testing, or other criteria as conditions for their approval.

Authority: The ERRC requirements in the 2014 OFC Sections 510 and 1103.2 are regulated and enforced under the authority of the fire code official. This authority is in accordance with Oregon Revised Statutes 476.030(1) (a)-(c), 476.035, 476.120 and 478.910, and Oregon Administrative Rule Section 837-039-0015.

Local fire jurisdictions should continue evaluating new and existing structures for adequacy of emergency responder radio coverage and require remedies as appropriate. For newly proposed buildings, it is important that local fire code officials identify and communicate ERRC requirements early in the project design phase. Fire code officials should utilize their involvement in land use cases and building permit reviews to communicate requirements to the applicant at the earliest possible opportunity.

Temporary Rule: Under the November 3, 2016 [temporary rule](#) and incorporated OSSC code provisions, the 2014 OSSC contains temporary requirements related to *construction features* where ERRC equipment will be installed. The OSSC requirements are limited to pathway survivability (where applicable) and National Electrical Manufacturers Association (NEMA) enclosures for equipment. Most equipment already comes in NEMA enclosures, and pathway survivability is typically accomplished by a fire-rated shaft provided in the building. The building official is responsible for enforcing OSSC regulations regarding construction and equipment installation, which will typically be in the form of fire-rated shafts and through-penetration protections where cables penetrate required rated assemblies.

The temporary rule requires that an OSSC Form 915 be submitted to the building official for buildings meeting certain criteria. Local fire code officials are requested to review the form, provide information, and sign applicable sections. In Part III of the form you may indicate your district has an alternative ERRC program (if appropriate), that a wired communication system is recommended, or an alternative system would be considered but is subject to approval by the local fire code official. It is important to keep in mind that the OSSC regulates *construction features* (OSSC 915.3), and not the entire communication system nor the ERRC system requirements in the OFC. Only the fire code official may approve, waive, or modify any of the OFC Sections 510 or 1103.2 communication requirements.

The temporary rules are effective through 05/01/2017. Unless a permanent rule is adopted, the OSSC provisions will expire and return to the rules in effect prior to the adoption of the temporary rule and code provisions.

Contacts: If you have questions or are in need of further information, contact David Mills at 503-934-8204, david.mills@state.or.us or John Patterson at 541-826-7100, johnp@jcf3.com.

References:

2014 OFC Sections: 101.2; 101.3; 102.1; 102.2; 102.4; 102.7, 102.7.1, 102.7.2; 104.1; 104.2; 104.6.4; 104.8; 104.9.2; 105.4; 510.1 – 510.6.3; 1103.2

Oregon Revised Statute: 476.030; 476.035; 476.060; 476.120; 478.910

Oregon Administrative Rule: 837-039-0015(2)(b);
2014 Oregon Structural Specialty Code:
Oregon Attorney General Opinion: OP-5874 (1985); 7082 (1974)

Imbedded links:

<http://www.oregon.gov/bcd/laws-rules/Documents/rules/20161109-errc-tr.pdf>