

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/CS/HB 785 Two-way Radio Communication Enhancement Systems

SPONSOR(S): Commerce Committee, Insurance & Banking Subcommittee, Botana

TIED BILLS: IDEN./SIM. BILLS: CS/SB 1190

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Insurance & Banking Subcommittee	14 Y, 0 N, As CS	Fortenberry	Luczynski
2) Commerce Committee	22 Y, 0 N, As CS	Fortenberry	Hamon

SUMMARY ANALYSIS

The State Fire Marshal (SFM), within the Department of Financial Services (DFS), is charged with enforcing the provisions of ch. 633, F.S., and all other applicable laws relating to fire safety. The SFM adopts by rule the Florida Fire Prevention Code (FFPC), which is the minimum fire prevention code deemed adopted in each municipality, county, and special district with firesafety responsibilities. Local fire authorities (authorities having jurisdiction) set standards for radio signal strength throughout buildings within their jurisdiction to ensure consistent fire and rescue communication capabilities. Two-way radio communication enhancement systems are devices installed after a building is constructed that accept, and then amplify, radio signals used by first responders. The generally desired effect is that the radio signal strength at ground level, where a fire rescue operation might be based, is equal to the radio signal strength in all locations throughout the building, to ensure consistent communication. Several devices are available to boost signal strength to meet required radio signal strength. Amendments to the FFPC, effective January 1, 2018, provided that all new and existing buildings must maintain minimum radio signal strength at a level determined by the authority having jurisdiction.

Section 633.202(18), F.S., enacted in 2016, provides that authorities having jurisdiction shall determine minimum radio signal strength for fire department communications in all new and existing high-rise buildings. The FFPC defines a high-rise building as a building where the floor of an occupiable story is greater than 75 feet above the lowest level of fire department vehicle access. Currently, existing high-rise buildings are not required to comply with minimum radio strength for fire department communications and two-way radio communication enhancement systems as required by the FFPC until January 1, 2025. By January 1, 2024, an existing building that is not in compliance with the requirements for minimum radio strength for fire department communications must apply to the local government agency having jurisdiction for an appropriate permit for the required system installation. Such an existing building must demonstrate that the building will become compliant with the FFPC by January 1, 2025.

The bill clarifies that the authority having jurisdiction to determine the minimum radio signal strength for fire department communications has jurisdiction over buildings of any height, not just high-rise buildings. The bill establishes that two-way radio communication enhancement, or equivalent, systems may be used to comply with the minimum radio signal strength requirements for fire department communications. The bill also establishes that these systems are not required in apartment buildings that are 75 feet or less in height that also meet all of the following criteria: constructed using wood framing; has 150 or less dwelling units; and all dwelling units discharge to the exterior or to a corridor that leads directly to an exit as defined in the Florida Building Code (Code).

The bill establishes that evidence of wood frame construction shall be shown by the property owner providing building permit documentation that confirms this type of construction. The bill clarifies that existing high-rise buildings, as defined in the Code, are not required to comply with minimum radio signal strength for fire department communications and two-way radio communication enhancement systems until January 1, 2025, but they must apply for the appropriate permit for installation by January 1, 2024. The bill also clarifies that existing high-rise apartment buildings are subject to the same installation deadlines as all other existing high-rise buildings.

The bill has no impact on state or local government revenues or expenditures, and may have an indeterminate, positive impact on the private sector.

The bill has an effective date of July 1, 2022.

FULL ANALYSIS
I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Background

State Fire Marshal

Chapter 633, F.S., Fire Prevention and Control, designates the Chief Financial Officer (CFO) as the State Fire Marshal (SFM). The SFM, through the Division of the State Fire Marshal within the Department of Financial Services (DFS), is charged with enforcing the provisions of ch. 633, F.S., and all other applicable laws relating to fire safety.¹ The SFM also has the responsibility to minimize the loss of life and property due to fire.² Pursuant to this authority, the SFM regulates, trains, and certifies fire service personnel and firesafety inspectors; investigates the causes of fires; enforces arson laws; regulates the installation of fire equipment; conducts firesafety inspections of state property; and operates the Florida State Fire College.

Florida Fire Prevention Code

The SFM adopts by rule the Florida Fire Prevention Code (FFPC), which contains all fire safety laws and rules that pertain to the design, construction, erection, alteration, modification, repair, and demolition of public and private buildings, structures, and facilities and the enforcement of such fire safety laws and rules.³ The SFM adopts a new edition of the FFPC every three years⁴ and the 7th edition of the FFPC took effect on December 31, 2020.⁵ The FFPC is largely based on the *National Fire Protection Association's (NFPA) Standard 1, Fire Prevention Code*, along with the current edition of the *NFPA's Life Safety Code, NFPA 101*.⁶

The FFPC is the minimum fire prevention code deemed adopted in each municipality, county, and special district with firesafety responsibilities, and applies to every building and structure throughout the state with few exceptions.⁷ Municipalities, counties, and special districts with firesafety responsibilities may supplement the FFPC with more stringent standards.⁸ Local fire authorities (authorities having jurisdiction) set standards for radio signal strength throughout buildings within their jurisdiction to ensure consistent fire and rescue communication capabilities.

Radio Signal Strength for Fire Department Communications

The life safety of firefighters and citizens depends on reliable, functional communication tools that work in the harshest and most hostile of environments.⁹ "All firefighters, professional and volunteer, operate in extreme environments that are markedly different from those of any other radio users."¹⁰ The radio connects the firefighters to command and outside assistance in the most desperate of situations.¹¹ The focus on radio signal strength stems from difficulties firefighters experienced when attempting rescue operations on September 11, 2001, in the World Trade Center Towers.¹² These firefighters found that in

¹ S. 633.104 F.S.

² *Id.*

³ Ch. 69A, F.A.C.

⁴ S. 633.202, F.S.

⁵ See Florida Fire Prevention Code (FFPC),

<https://www.myfloridacfo.com/division/sfm/bfp/floridafirepreventioncodepage.htm> (last visited Jan. 28, 2022).

⁶ S. 633.202(2), F.S.

⁷ S. 633.208, F.S. and R. 69A-60.002(1), F.A.C.

⁸ S. 633.208(3), F.S., and 69A-60.002(2), F.A.C.

⁹ U.S. Fire Administration, *Voice Radio Communications Guide for the Fire Service* (June 2016),

https://www.usfa.fema.gov/downloads/pdf/publications/Voice_Radio_Communications_Guide_for_the_Fire_Service.pdf

(last visited Jan. 28, 2022).

¹⁰ *Id.*

¹¹ *Id.*

¹² See National Fire Protection Association, *Assessment of Total Evacuation Systems for Tall Buildings: Literature Review*, evacsystallbuildingsliteraturereviewexecsum.ashx (nfpa.org) (last visited Jan. 29, 2022).

certain areas of the buildings their radio signal degraded, making live communications difficult or impossible.¹³

Two-way radio communication enhancement systems are devices installed after a building is constructed that accept, and then amplify, radio signals used by first responders. A radio frequency site survey may be conducted in a building to determine areas where radio signal strength drops due to materials used in construction, such as thick walls, metal construction, underground structures, and low-emissivity glass windows. The generally desired effect is that the radio signal strength at ground level, where a fire rescue operation might be based, is equal to the radio signal strength in all locations throughout the building, to ensure consistent communication. Several devices are available to boost signal strength to meet required radio signal strength. These include bi-directional amplifiers and networks of indoor antennae, referred to collectively as a distributed antenna system.¹⁴

Florida Fire Code Minimum Radio Signal Strength

Amendments to the FFPC, effective January 1, 2018, provided that all new and existing buildings must maintain minimum radio signal strength at a level determined by the authority having jurisdiction.¹⁵ Where required by a local fire authority, two-way radio communication enhancement systems must comply with federal standards for installation and upkeep.¹⁶ Additionally, if a two-way radio communication enhancement system would have a negative impact on the operations of a facility, the local fire authority may accept an automatically activated emergency responder radio coverage system in the alternative.¹⁷

Minimum Radio Signal Strength for High-Rise Buildings

Section 633.202(18), F.S., enacted in 2016,¹⁸ provides that authorities having jurisdiction shall determine minimum radio signal strength for fire department communications in all new and existing high-rise buildings. The FFPC defines a high-rise building as a building where the floor of an occupiable story is greater than 75 feet above the lowest level of fire department vehicle access.¹⁹ Currently, existing high-rise buildings are not required to comply with minimum radio strength for fire department communications and two-way radio communication enhancement systems as required by the FFPC until January 1, 2025.²⁰ By January 1, 2024, an existing building that is not in compliance with the requirements for minimum radio strength for fire department communications must apply to the local government agency having jurisdiction for an appropriate permit for the required system installation.²¹ Such an existing building must demonstrate that the building will become compliant with the FFPC by January 1, 2025.²²

Effect of the Bill

¹³ *Id.*

¹⁴ See City of Treasure Island, Florida, *Two-Way Radio Communications Enhancement Systems Requirements* (Apr. 20, 2019), [High-Rise Public Safety System Integrators \(mytreasureisland.org\)](https://www.mytreasureisland.org) (last visited Jan. 29, 2022); see also East Lake Tarpon Special Fire Control District, *Information Bulletin: Two-Way Radio Communication Enhancement System Requirements*, [Bulletin+East+Lake+Two+Way+Communications.pdf \(elfr.org\)](https://www.elfr.org) (last visited Jan. 29, 2022).

¹⁵ Florida Fire Prevention Code (7th ed. 2020) s. 11.10.1, <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/codes-and-standards/free-access?mode=view> (last visited Jan. 29, 2022).

¹⁶ Florida Fire Prevention Code (7th ed. 2020) s. 11.10.2, <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/codes-and-standards/free-access?mode=view> (last visited Jan. 29, 2022).

¹⁷ Florida Fire Prevention Code (7th ed. 2020) s. 11.10.3, <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/codes-and-standards/free-access?mode=view> (last visited Jan. 29, 2022).

¹⁸ Ch. 2016-129, s. 27, Laws of Fla.

¹⁹ Florida Fire Prevention Code (7th ed. 2020) s. 3.3.29.6, <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/codes-and-standards/free-access?mode=view> (last visited Jan. 29, 2022).

²⁰ S. 633.202(18), F.S. Under current law, the compliance dates for existing apartment buildings are the same as those for all other high-rise buildings.

²¹ *Id.*

²² *Id.*

The bill clarifies that the authority having jurisdiction to determine the minimum radio signal strength for fire department communications has jurisdiction over buildings of any height, not just high-rise buildings. The bill establishes that two-way radio communication enhancement, or equivalent, systems may be used to comply with the minimum radio signal strength requirements for fire department communications. The bill also establishes that these systems are not required in apartment buildings that are 75 feet or less in height that also meet all of the following criteria:

- Constructed using wood framing;
- Has 150 or less dwelling units; and
- All dwelling units discharge to the exterior or to a corridor that leads directly to an exit as defined in the Florida Building Code (Code).

The bill establishes that evidence of wood frame construction shall be shown by the property owner providing building permit documentation that confirms this type of construction. The bill clarifies that existing high-rise buildings, as defined in the Code, are not required to comply with minimum radio signal strength for fire department communications and two-way radio communication enhancement systems until January 1, 2025, but they must apply for the appropriate permit for installation by January 1, 2024. The bill also clarifies that existing high-rise apartment buildings are subject to the same installation deadlines as all other existing high-rise buildings.

B. SECTION DIRECTORY:

Section 1. Amends s. 633.202, F.S., relating to Fire Prevention Code.

Section 2. Provides and effective date of July 1, 2022.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

None.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The bill has an indeterminate, but potentially positive impact on the private sector. Certain apartment buildings will be made exempt from putting in two-way radio systems and will save the cost associated with putting in those systems.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. The bill does not appear to affect county or municipal governments.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

The bill neither authorizes nor requires administrative rulemaking.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/COMMITTEE SUBSTITUTE CHANGES

On February 2, 2022, the Insurance & Banking Subcommittee considered the bill, adopted one amendment, and reported the bill favorably as a committee substitute. The amendment made the following modifications to the bill:

- Established that apartment buildings that are 75 feet or less in height with exterior components constructed of wood frame are exempt from the requirement to install two-way radio communication enhancement, or equivalent, systems.
- Established that evidence of wood-frame construction shall be shown by the property owner providing building permit documentation that confirms this type of construction.

On February 23, 2022, the Commerce Committee considered the bill, adopted a strike-all amendment, and reported the bill favorably as a committee substitute. The amendment made the following modifications to the bill:

- Clarified that the authority having jurisdiction to determine the minimum radio signal strength for fire department communications has jurisdiction over buildings of any height, not just high-rise buildings.
- Establishes that apartment buildings that are 75 feet or less in height and constructed of wood frame must also meet the following in order to be exempt from the requirement to install two-way radio communication enhancement systems or equivalent systems:
 - The building has 150 or less dwelling units; and
 - All dwelling units in the building discharge to the exterior or to a corridor that leads directly to an exit as defined in the Florida Building Code.
- Provides clarification about which buildings, other than apartment building 75 feet or less in height must comply with the requirements for minimum radio signal strength.

The analysis is drafted to the committee substitute as passed by the Commerce Committee.