

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/HB 137 Fire Sprinklers

SPONSOR(S): Regulatory Reform Subcommittee, Harding and others

TIED BILLS: **IDEN./SIM. BILLS:** SB 286

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Regulatory Reform Subcommittee	14 Y, 0 N, As CS	Brackett	Anstead
2) Commerce Committee		Brackett	Hamon

SUMMARY ANALYSIS

Florida's fire prevention and control law, ch. 633, F.S., designates the state's Chief Financial Officer as the State Fire Marshal, and requires the State Fire Marshal to adopt the Florida Fire Prevention Code (Fire Code). The Fire Code sets forth fire safety standards (including certain national codes) for buildings and structures, and is enforced by local fire officials within each county, municipality, and special fire districts in the state.

The State Fire Marshal is also responsible for licensing and regulating fire system protection contractors in the state. A "fire protection system" is a system designed to protect buildings, structures, and special hazards from fires. In order to engage in the business of laying out, fabricating, installing, inspecting, altering, repairing, or servicing a fire protection system in Florida, a person must be certified as a fire protection system contractor.

Fire protection system contractors are divided into five categories, and their ability to practice is limited to the category or categories that the contractor has obtained certification in. The five categories are:

- Contractor I
- Contractor II
- Contractor III
- Contractor IV
- Contractor V

Fire protection systems are designed by licensed engineers and architects. A fire protection systems contractor may not design a fire protection system unless specifically authorized by current law. Currently, Contractors I, II, and IV may design fire protection systems of 49 or fewer sprinklers, design the alteration of an existing fire sprinkler system that consists of the relocation, addition, or deletion of 49 sprinklers or fewer, and design fire protection systems for one and two family dwellings regardless of size.

The bill:

- Allows a Contractor V to **inspect** underground piping for a water-based fire protection system, as long as, the Contractor V is under the direction of a Contractor I or II.
 - The bill does not change a Contractor V's ability to install, fabricate, alter, repair, and service underground piping for a fire protection system.
- Provides that a Contractor I or II may **design** the alteration of an existing fire sprinkler system if the alteration consists of the relocation or deletion of 249 or fewer sprinklers, as long as:
 - There is no change of occupancy of the affected areas;
 - There is no change in the water demand; and
 - The occupancy hazard classification of the affected areas is not increased.
- Clarifies that a Contractor I, II, and IV may install tanks supplying fuel or water to a fire sprinkler system, including the piping for such tanks.
- Clarifies that a Contractor I, II, or IV may design the alteration of an existing fire sprinkler system for one- and two- family dwellings and manufactured homes.

The bill does not have a fiscal impact on state and local governments.

The bill provides for an effective date of July 1, 2021.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Current Situation

State Fire Prevention – State Fire Marshal

Florida's fire prevention and control law, ch. 633, F.S., designates the state's Chief Financial Officer as the State Fire Marshal. The State Fire Marshal, through the Division of State Fire Marshal (Division 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, and has the responsibility to minimize the loss of life and property in this state due to fire.¹ Pursuant to this authority, the State Fire Marshal regulates, trains, and certifies fire service personnel and fire safety inspectors; investigates the causes of fires; enforces arson laws; regulates the installation of fire equipment; conducts fire safety inspections of state property; and operates the Florida State Fire College.

The Division consists of two bureaus: the Bureau of Fire Standards and Training and the Bureau of Fire Prevention. The Bureau of Firefighter Standards and Training approves firefighter training curricula, offers fire service training at the Florida State Fire College, and certifies that fire service members meet industry-based standards. The Bureau of Fire Prevention conducts fire/life safety inspections and construction plans review on all state-owned buildings; regulates the fireworks and the fire sprinkler industries, inspects and licenses boilers, and certifies fire suppression industry workers.²

The Regulatory Licensing Section within the Bureau of Fire Prevention is responsible for enforcing all laws relating to the licensing and regulation of the following industries: Fire Equipment, Engineered Fire Protection Systems, Explosives and Sparklers.³

The State Fire Marshal also adopts by rule the Florida Fire Prevention Code (Fire Code), 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.⁴

The State Fire Marshal adopts a new edition of the Fire Code every three years. When adopting a new edition of the Fire Code, the State Fire Marshal must adopt the most recent version of the National Fire Protection Association (NFPA) Standard 1, Fire Prevention Code, and the NFPA 101 Life Safety Code.⁵

State law requires all municipalities, counties, and special districts with fire safety responsibilities to enforce the Fire Code as the minimum fire prevention code to operate uniformly among local governments and in conjunction with the Florida Building Code.⁶ Each county, municipality, and special district with fire safety enforcement responsibilities must employ or contract with a fire safety inspector (certified by the State Fire Marshal) to conduct all fire safety inspections required by law.⁷

Fire Protection Systems

¹ S. 633.104, F.S.

² Division of State Fire Marshal, *Florida State Fire Marshal*, <https://www.myfloridacfo.com/Division/sfm/> (last visited Feb. 3, 2021).

³ DFS, *Regulatory Licensing*, <https://www.myfloridacfo.com/Division/SFM/BFP/RegulatoryLicensing/default.htm> (last visited Feb. 6, 2021).

⁴ Ss. 633.202(1) and (2), F.S.

⁵ *Id.* The NFPA is the National Fire Protection Association. Founded in 1896, the NFPA delivers information and knowledge through no more than 300 consensus codes and standards, research, training, education, outreach and advocacy. NFPA, *About NFPA*, <https://www.nfpa.org/about-nfpa> (last visited Feb. 4, 2021).

⁶ The Florida Building Code is the statewide building code for all construction in the state. Every local government must enforce the Florida Building Code and issue building permits. *See generally* ch. 553, F.S.

⁷ S. 633.216(1), F.S.

A “fire protection system” is a system individually designed to protect the interior or exterior of a specific building or buildings, structure, or other special hazard from fire. A fire protection system includes, but is not limited to:⁸

- Water sprinkler systems;
- Water spray systems;
- Foam-water sprinkler systems;
- Foam-water spray systems;
- Carbon dioxide systems;
- Foam extinguishing systems;
- Dry chemical systems; and
- Halon and other chemical systems used for fire protection use.

Fire protection systems also include any tanks and pumps connected to fire sprinkler systems, overhead and underground fire mains, fire hydrants and hydrant mains, standpipes and hoses connected to sprinkler systems, sprinkler tank heaters, air lines, and thermal systems used in connection with fire sprinkler systems.⁹

Fire protection systems must be installed in accordance with the Fire Code and the Florida Building Code. Current law requires local governments to enforce the Fire Code and the Florida Building Code including the permitting, inspecting, and approving the installation of a fire protection system.¹⁰ Owners of fire protection systems are responsible for the maintenance of their fire protection systems, and must contract with a certified fire protection system contractor to regularly inspect such systems.¹¹

Fire Protection System Contractors

In order to engage in the business of laying out, fabricating, installing, inspecting, altering, repairing, or servicing a fire protection system in Florida, other than a pre-engineering system, a person must be certified as a fire protection system contractor.¹²

Fire protection system contractors are regulated by ch. 633, F.S., which outlines the law pertaining to fire protection system contractors in the state. The State Fire Marshal is responsible for licensing and regulating fire system protection contractors in the state.¹³

Fire protection system contractors are divided into five categories. A contractor’s ability to practice is limited to the category or categories that a contractor has obtained certification. The contractor categories are:¹⁴

- **Contractor I** - means a person who can lay out, fabricate, install, inspect, alter, repair, and service all types of fire protection systems, excluding pre-engineered systems.
- **Contractor II** - means a person who can lay out, fabricate, install, inspect, alter, repair, and service water sprinkler systems, water spray systems, foam-water sprinkler systems, foam-water spray systems, standpipes, combination standpipes and sprinkler risers, excluding pre-engineered systems.
- **Contractor III** - means a person who can fabricate, install, inspect, alter, repair, and service carbon dioxide systems, foam extinguishing systems, dry chemical systems, and Halon and other chemical systems, excluding pre-engineered systems.

⁸ S. 633.102(11), F.S.

⁹ *Id.*

¹⁰ See generally ch. 553 and 633, F.S.; 10.1.2 and 10.1.3 of the 7th edition of the Florida Fire Prevention Code (NFPA Standard 1).

¹¹ S. 633.312, F.S.; 10.2.7 of the 7th edition of the Florida Fire Prevention Code (NFPA Standard 1).

¹² S. 633.336(1), F.S.

¹³ Ss. 633.318 and 633.338, F.S.

¹⁴ S. 633.102(3), F.S.

- **Contractor IV** - means a person who can lay out, fabricate, install, inspect, alter, repair, and service automatic fire sprinkler systems for detached one- and two- family dwellings and mobile homes. This does not include single-family dwellings in multi-dwelling buildings such as apartments, condominiums, assisted living facilities, or buildings connected to other dwellings.
 - A Contractor IV is limited to the scope of practice specified in the NFPA 13D Standard for the Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes.
- **Contractor V** - means a person who can fabricate, install, inspect, alter, repair, and service the underground piping for a fire protection system using water as the extinguishing agent beginning at the point of service and ending no more than 1 foot above the finished floor. However, a Contractor V may not inspect underground piping that is exposed, which must be done by a Contractor I or II.¹⁵

A fire protection system contractor must have insurance providing coverage for comprehensive general liability for bodily injury and property damages, products liability, completed operations, and contractual liability. A Contractor I, Contractor II, Contractor III, or Contractor V must have insurance of not less than \$500,000, and a Contractor IV must have insurance of not less than \$250,000.¹⁶

In order to obtain certification as a fire protection system contractor, a person must submit a written application to the Division, pay a fee of \$300, be at least 18 years of age, be of good moral character, provide proof of insurance, and pass a written exam administered by the Division.¹⁷

In order to sit for an exam for certification as a contractor, a person must provide evidence of the following experience and/or education depending on the certification sought by the person:¹⁸

- For certification as a Contractor I, a person must have 4 years of experience in the full time employment with a Contractor I, or a combination of equivalent education and experience in both water-based and chemical fire suppression systems.
- For certification as a Contractor II, a person must have 4 years of verifiable employment experience with a fire protection system as a Contractor I or Contractor II, or a combination of equivalent education and experience in water-based fire suppression systems.
- For certification as a Contractor III, a person must have 4 years of verifiable employment experience with a fire protection system as a Contractor I or Contractor II, or a combination of equivalent education and experience in chemical fire suppression systems.
- For certification as a Contractor IV, a person must be licensed as a certified plumbing contractor and successfully complete a training program of not less than 40 contact hours about the applicable installation standard described in NFPA 13D.
- For certification as a Contractor V, a person must be licensed as a certified underground utility and excavation contractor or certified plumbing contractor, or provide 4 years of verifiable experience in the full time employment of a certified underground utility and excavation contractor or certified plumbing contractor, or a combination of equivalent education and experience.

Fire Protection Systems with Diesel Motors

A vital part of a fire protection system is the fire pump. A fire pump is necessary if a building or structure's water supply is insufficient to provide the proper water pressure for the system to function properly. The fire pump pulls water from a dedicated source, such as an underground public water supply or a water storage

¹⁵ S. 633.318(9), F.S.

¹⁶ Ss. 633.318(4), and (7), F.S.

¹⁷ The Division has an exam for each type of fire protection system certification. Ss. 633.318(1), (2), and (4), and 633.132(1)(a), F.S.

¹⁸ S. 633.318(3), F.S.

tank.¹⁹ The most common **driver** for a fire pump is an electric motor or diesel engine. If a building power supply is insufficient to supply an electric motor, a diesel pump will most likely be utilized. A diesel motor requires a separate fuel tank.²⁰

Current law provides that fire pump control panels and maintenance of electric and diesel pump drivers require special expertise. However, it is not economically feasible for fire protection system contractors to employ such experts full time. As a result, current law allows fire protection system contractors to subcontract with companies providing advanced technical services for the installation, servicing and maintenance of fire pump control panels and pump drivers, as long as a company is under contract with a fire protection system contractor.²¹

According to industry members, there is a question about whether fire protection system contractors can install the **tanks** providing water or diesel fuel to a fire protection system. According to industry members, some local jurisdictions interpret current law to mean that fire protection system contractors cannot install the tanks and must have a licensed liquid petroleum gas installer²² or licensed plumber install the tanks, while other local jurisdictions interpret current law to mean that fire protection system contractors may install the tanks.²³

Design of Fire Protection Systems

The scope of practice for certified contractors does not include designing a fire protection system. In order to design fire protection systems, a person must be licensed as a fire protection engineer²⁴ or architect with fire protection design experience. A fire protection engineer or architect with fire protection design may design any type of fire protection system and is not limited by type or size of the fire protection system.²⁵

Architects in the state are regulated by ch. 481, pt. I, F.S., and by the Board of Architecture and Interior Design with the Department of Business and Professional Regulation (DBPR).

The practice of engineering is regulated by ch. 471, F.S., and by the Florida Board of Professional Engineers (FBPE).²⁶

Current law provides that a Contractor I, II, or IV may:²⁷

- Design fire protection systems of 49 or fewer sprinklers;
- Design the alteration of an existing fire sprinkler system regardless of size as long as the alteration consists of the relocation, addition, or deletion of no more than 49 sprinklers; and
- Design a fire protection system that complies with NFPA 13D Standard for the Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes.

Effect of the Bill

¹⁹ Tom Divine and Will Semien, *NFPA 20: Changes to the fire pump standard*, Consulting, Specifying Engineer (Nov. 14, 2017) <https://www.csemag.com/articles/nfpa-20-changes-to-the-fire-pump-standard/#:~:text=The%20fire%20pump%20is%20a,the%20event%20of%20a%20fire>. (last visited Feb. 5, 2017).

²⁰ Tracey Foster, *NFPA 20: Fire pump design*, Consulting, Specifying Engineer (Nov. 21, 2019) <https://www.csemag.com/articles/nfpa-20-fire-pump-design/> (last visited Feb. 6, 2021).

²¹ S. 633.336, F.S.

²² Liquid petroleum gas installers are licensed and regulated by the Department of Agriculture and Consumer Services. Liquid petroleum is any material that is composed predominantly of propane, propylene, butanes (normal butane or isobutane), butylenes, or a mixture of such materials. Diesel fuel falls under the definition of liquid petroleum. Ch. 527, F.S.; U.S. Energy information Administration, Diesel fuel explained, <https://www.eia.gov/energyexplained/diesel-fuel/> (last visited Feb. 7, 2021).

²³ Email from Suzanne Saults, Owner of St. Petersburg Fire Protection, Fire Protection Systems definition (Feb. 8, 2021); Email from Bob DiModica, General Manager of Naples Fire Protection, Inc., Fire Sprinkler FS 633.102 (Feb. 9, 2021); Email from Scott Cox, President of Cox Fire Protection, Inc., HB 137 (Feb. 10, 2021); Chris Johnson, President of Piper Fire Protection, Inc., FS 633.102 (Feb. 10, 2021).

²⁴ There is no fire protection engineer license provided in current law. However, in order to practice engineering in Florida including fire protection engineering, a person must be licensed as a professional engineer. See ch. 471, F.S.

²⁵ S. 633.102(3), F.S.

²⁶ S. 471.038(3), F.S.

²⁷ S. 633.102(3), F.S.

The bill allows a Contractor V to **inspect** underground piping for a water-based fire protection system, as long, as the Contractor V is under the direction of a Contractor I or II. A Contractor V may still fabricate, install, alter, repair, and service underground piping for such fire protection system.

The bill provides that a Contractor I or II may **design** the alteration of an existing fire sprinkler system if the alteration consists of the relocation or deletion of 249 or fewer sprinklers, regardless of the size of the sprinkler system, as long as:

- There is no change of occupancy of the affected areas, as defined in the Florida Building Code and the Florida Fire Prevention Code;²⁸
- There is no change in the water demand as defined in NFPA 13, "Standard 76 for the Installation of Sprinkler Systems;" and
- The occupancy hazard classification as defined in NFPA 13 is not reduced or remains the same.²⁹

The bill clarifies that a Contractor I, II, or IV may **design** the alteration of an existing fire sprinkler system, which complies with NFPA 13D Standard for the Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes.

It also clarifies that a Contractor I, II, or IV may install tanks supplying fuel or water to a fire sprinkler system, including the piping for such tanks.

B. SECTION DIRECTORY:

Section 1. Amending 633.102, F.S., relating to licensure for design, installation, and alteration of fire sprinklers.

Section 2. Providing for an effective date of July 1, 2021.

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.

²⁸ Every building must have an occupancy classification, which is the formal designation of the primary purpose of the building. Different classifications of occupancy represent varying levels of hazard and risk to building occupants. A change of occupancy is when a building changes its primary purpose or occupancy classification. Ss. 202 and 302 of the Seventh Edition of the Building Code.

²⁹ The occupancy hazard classification is a rating system that is used to help determine the minimum water needed to fight a structural fire. No hazard classification is assigned when a building has an automatic sprinkler system installed in accordance with applicable standards. NFPA, *Step 1 How Much Water is Needed?*, https://www.nfpa.org/assets/gallery/firewise/operationWater/step1_3.htm (last visited Feb. 4, 2021).

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The bill may have a positive impact by increasing the number of people who may design the alteration of fire sprinkler systems by allowing Contractors I and II to design the alteration of larger fire sprinkler protection systems.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. This bill does not appear to require counties or municipalities to spend funds or take action requiring the expenditures of funds; reduce the authority that counties or municipalities have to raise revenues in the aggregate; or reduce the percentage of state tax shared with counties or municipalities.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

On February 18, 2021, the Regulatory Reform Subcommittee adopted a strike-all amendment and reported the bill favorably as a committee substitute. The committee substitute:

- Allows a Contractor V to continue altering, repairing, or servicing underground piping for a water-based fire protection system without supervision.
- Clarifies that a Contractor I, II, and IV may design the alteration of an existing fire sprinkler system for one- and two- family dwellings and manufactured homes.
- Clarifies that a Contractor III may not install tanks supplying water or fuel to a fire sprinkler system.