By Senator Forman

32-323-00

A bill to be entitled

An act relating to fire protection systems; amending s. 553.79, F.S.; establishing criteria and design approval requirements for fire protection systems; providing responsibilities of professional engineers and fire protection system contractors in the design and installation of such systems; amending s. 633.021, F.S.; providing that certain design and layout activities of fire protection systems contractors do not constitute the practice of engineering; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Subsection (6) of section 553.79, Florida Statutes, is amended to read:

553.79 Permits; applications; issuance; inspections.--

(6) A ~~No~~ permit may not be issued for any building construction, erection, alteration, repair, or addition unless the applicant for such permit provides to the enforcing agency that ~~which~~ issues the permit any of the following documents that ~~which~~ apply to the construction for which the permit is to be issued:

(a) Electrical documents for any new building or addition which requires an aggregate service capacity of 600 amperes (240 volts) or more on a residential electrical system or 800 amperes (240 volts) or more on a commercial or industrial electrical system and which costs more than $50,000.

(b) Plumbing documents for any new building or addition which requires a plumbing system with more than 250 fixture units or which costs more than $50,000.

(c) Fire sprinkler design criteria documents for any new building or addition that ~~which~~ includes a fire sprinkler system that ~~which~~ contains 50 or more sprinkler heads.

1. Upon approval of the engineer's design criteria, a building permit may be issued. A fire protection contractor licensed under chapter 633 may prepare the technical installation drawings and installation hydraulic calculations, based upon an engineer's design criteria. The contractor is responsible for installing the system in compliance with the engineering design criteria and nationally accepted fire sprinkler installation standards adopted by the State Fire Marshal. The permitting authority, after review and approval of the contractor's technical installation drawings and hydraulic calculations, shall issue a permit for the installation of the fire protection system. The engineer must seal the engineering design criteria but need not seal the technical installation drawings or installation hydraulic calculations prepared by a fire protection contractor. An engineer may, however, prepare the technical installation drawings, but will then be responsible for the technician layout of the system. However, an engineer seal is not required on any document other than the engineer design criteria. The engineer is responsible for the correctness of fire protection system documents prepared for bid purposes, regardless of whether the documents are sealed, when the documents are presented to the owner for the purpose of soliciting bids for the fire protection system.

2. Documentation of fire protection system engineering design criteria for systems installed in a new building, a new fire protection system installed in an existing building, or an addition to an existing fire protection system when the system to be installed contains 50 or more sprinkler heads, must be prepared by or under the supervision of a Florida registered professional engineer with documented training and experience in fire protection engineering. The engineering design criteria documentation must include: occupancy and hazard classification; fire sprinkler design density in coordination with the owner's insurance carrier; water supply data, including hydrant locations used for flow tests, time of day, and name of person who conducted the flow test; underground water supply entry point into the structure; backflow prevention type and location; fire department connection location and locations of supporting fire hydrants; whether a fire pump is needed and if so, indication of fire pump panel type, location, and power requirements; standpipe classification and location and hose cabinet location; hydrant locations; coordination with mechanical and electrical engineering for fire alarm and smoke removal interface; and any special design criteria that exceed the minimum design requirements established by the State Fire Marshal pursuant to chapter 633. Upon review and approval of the engineering design criteria by the permitting authority and compliance with this section, the permit for construction of the structure may be issued.

3. The preparation of technical drawings and installation hydraulic calculations for the layout and installation of a fire protection system by a fire protection contractor certified under chapter 633, and pursuant to layout

authority therein, when applying the fire sprinkler engineering design criteria established by the State Fire Marshal or criteria established by the design engineer, is not considered engineering. A permit for the installation of a fire protection system shall be issued to a fire protection contractor certified under s. 633.521, upon review and approval by the permitting authority of the technical installation drawings and installation hydraulic calculations. The technical installation drawings and installation hydraulic calculations need not be sealed by a professional engineer.

4. A Contractor I, Contractor II, or Contractor IV, certified under s. 633.521, may design a fire sprinkler system of 49 or fewer heads and may design the alteration of an existing fire sprinkler system if the alteration consists of the relocation, addition, or deletion of not more than 49 heads, notwithstanding the size of the existing fire sprinkler system.

(d) Heating, ventilation, and air-conditioning documents for any new building or addition which requires more than a 15-ton-per-system capacity which is designed to accommodate 100 or more persons or for which the system costs more than $50,000. This paragraph does not include any document for the replacement or repair of an existing system in which the work does not require altering a structural part of the building or for work on a residential one-family, two-family, three-family, or four-family structure.

(e) Any specialized mechanical, electrical, or plumbing document for any new building or addition which includes a medical gas, oxygen, steam, vacuum, toxic air filtration, halon, or fire detection and alarm system which costs more than $5,000.

No such document is ~~shall be~~ valid unless a professional engineer who possesses a valid certificate of registration has signed, dated, and stamped such document as provided in s. 471.025.

Section 2. Effective January 1, 2001, subsection (6) of section 553.79, Florida Statutes, as amended by section 49 of chapter 98-287, Laws of Florida, is amended to read:

553.79 Permits; applications; issuance; inspections.--

(6) A ~~No~~ permit may not be issued for any building construction, erection, alteration, modification, repair, or addition unless the applicant for such permit provides to the enforcing agency that ~~which~~ issues the permit any of the following documents that ~~which~~ apply to the construction for which the permit is to be issued and that must ~~which shall~~ be prepared by or under the direction of an engineer registered under chapter 471:

(a) Electrical documents for any new building or addition which requires an aggregate service capacity of 600 amperes (240 volts) or more on a residential electrical system or 800 amperes (240 volts) or more on a commercial or industrial electrical system and which costs more than $50,000.

(b) Plumbing documents for any new building or addition which requires a plumbing system with more than 250 fixture units or which costs more than $50,000.

(c) Fire sprinkler design criteria documents for any new building or addition that ~~which~~ includes a fire sprinkler system that ~~which~~ contains 50 or more sprinkler heads.

1. Upon approval of the engineer's design criteria, a building permit may be issued. A fire protection contractor

licensed under chapter 633 may prepare the technical installation drawings and installation hydraulic calculations, based upon an engineer's design criteria. The contractor is responsible for installing the system in compliance with the engineering design criteria and nationally accepted fire sprinkler installation standards adopted by the State Fire Marshal. The permitting authority, after review and approval of the contractor's technical installation drawings and hydraulic calculations, shall issue a permit for the installation of the fire protection system. The engineer must seal the engineering design criteria but need not seal the technical installation drawings or installation hydraulic calculations prepared by a fire protection contractor. An engineer may, however, prepare the technical installation drawings, but will then be responsible for the technician layout of the system. However, an engineer seal is not required on any document other than the engineer design criteria. The engineer is responsible for the correctness of fire protection system documents prepared for bid purposes, regardless of whether the documents are sealed, when the documents are presented to the owner for the purpose of soliciting bids for the fire protection system.

2. Documentation of fire protection system engineering design criteria for systems installed in a new building, a new fire protection system installed in an existing building, or an addition to an existing fire protection system when the system to be installed contains 50 or more sprinkler heads must be prepared by or under the supervision of a Florida registered professional engineer with documented training and experience in fire protection engineering. The engineering design criteria documentation must include: occupancy and

hazard classification; fire sprinkler design density in coordination with the owner's insurance carrier; water supply data, including hydrant locations used for flow tests, time of day, and name of person who conducted the flow test; underground water supply entry point into the structure; backflow prevention type and location; fire department connection location and locations of supporting fire hydrants; whether a fire pump is needed and if so, indication of fire pump panel type, location, and power requirements; standpipe classification and location and hose cabinet location; hydrant locations; coordination with mechanical and electrical engineering for fire alarm and smoke removal interface; and any special design criteria that exceed the minimum design requirements established by the State Fire Marshal pursuant to chapter 633. Upon review and approval of the engineering design criteria by the permitting authority and compliance with this section, the permit for construction of the structure may be issued.

3. The preparation of technical drawings and installation hydraulic calculations for the layout and installation of a fire protection system by a fire protection contractor certified under chapter 633, and pursuant to layout authority therein, when applying the fire sprinkler engineering design criteria established by the State Fire Marshal or criteria established by the design engineer, is not considered engineering. A permit for the installation of a fire protection system shall be issued to a fire protection contractor certified under s. 633.521, upon review and approval by the permitting authority of the technical installation drawings and installation hydraulic calculations.

The technical installation drawings and installation hydraulic calculations need not be sealed by a professional engineer.

4. A Contractor I, Contractor II, or Contractor IV, certified under s. 633.521, may design a fire sprinkler system of 49 or fewer heads and may design the alteration of an existing fire sprinkler system if the alteration consists of the relocation, addition, or deletion of not more than 49 heads, notwithstanding the size of the existing fire sprinkler system.

(d) Heating, ventilation, and air-conditioning documents for any new building or addition which requires more than a 15-ton-per-system capacity which is designed to accommodate 100 or more persons or for which the system costs more than $50,000. This paragraph does not include any document for the replacement or repair of an existing system in which the work does not require altering a structural part of the building or for work on a residential one-family, two-family, three-family, or four-family structure.

(e) Any specialized mechanical, electrical, or plumbing document for any new building or addition which includes a medical gas, oxygen, steam, vacuum, toxic air filtration, halon, or fire detection and alarm system which costs more than $5,000.

Documents requiring an engineer seal by this part are ~~shall~~ not ~~be~~ valid unless a professional engineer who possesses a valid certificate of registration has signed, dated, and stamped such documents ~~document~~ as provided in s. 471.025.

Section 3. Subsection (5) of section 633.021, Florida Statutes, is amended to read:

633.021 Definitions.--As used in this chapter:

(5)(a) "Contractor I" means a contractor whose business includes the execution of contracts requiring the ability to lay out, fabricate, install, inspect, alter, repair, and service all types of fire protection systems, excluding preengineered systems.

(b) "Contractor II" means a contractor whose business is limited to the execution of contracts requiring the ability to 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, all piping that is an integral part of the system beginning at the point where the piping is used exclusively for fire protection, sprinkler tank heaters, air lines, thermal systems used in connection with sprinklers, and tanks and pumps connected thereto, excluding preengineered systems.

(c) "Contractor III" means a contractor whose business is limited to the execution of contracts requiring the ability to lay out, fabricate, install, inspect, alter, repair, and service $CO_{2<}$/systems, foam extinguishing systems, dry chemical systems, and Halon and other chemical systems, excluding preengineered systems.

(d) "Contractor IV" means a contractor whose business is limited to the execution of contracts requiring the ability to lay out, fabricate, install, inspect, alter, repair, and service automatic fire sprinkler systems for detached one-family dwellings, detached two-family dwellings, and mobile homes, excluding preengineered systems and excluding single-family homes in cluster units, such as apartments, condominiums, and assisted living facilities or any building that is connected to other dwellings.

(e) "Contractor V" means a contractor whose business is limited to the execution of contracts requiring the ability to lay out, 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 at which the piping is used exclusively for fire protection and ending no more than 1 foot above the finished floor.

The definitions in this subsection must not be construed to include fire protection engineers or architects and do not limit or prohibit a licensed fire protection engineer or architect from designing any type of fire protection system. However, persons certified as a Contractor I, Contractor II, or Contractor IV under this chapter may design fire protection systems of 49 or fewer heads, and may design the alteration of an existing fire sprinkler system if the alteration consists of the relocation, addition, or deletion of not more than 49 heads, notwithstanding the size of the existing fire sprinkler system. Such plans may not be required by any local permitting authority to be sealed by a registered professional engineer. <u>The Legislature recognizes that for the safety and welfare of the public, the State Fire Marshal may establish fire protection system design criteria; that the State Fire Marshal has adopted and may continue to adopt nationally recognized fire protection system design criteria; that fire protection contractors may lay out fire protection systems; that the repetitive and routine process of preparing technical drawings and installation hydraulic calculations for the layout of a fire protection system based on the adopted national fire protection design standards and engineer design criteria does not require the use of engineering principles and knowledge;</u>

and that preparing the technical drawings and installation hydraulic calculations for the installation or alteration of fire protection systems by fire protection contractors in accordance with the engineer design criteria or fire sprinkler design criteria adopted by the State Fire Marshal does not constitute the practice of engineering.

Section 4. Except as otherwise provided in this act, this act shall take effect July 1, 2000.

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SENATE SUMMARY

Establishes criteria and design approval requirements for fire protection systems. Establishes responsibilities of professional engineers and fire protection system contractors in the design and installation of such systems. Provides that certain activities of fire protection system contractors do not constitute the practice of engineering.