

By Senator Forman

32-323-00

1 A bill to be entitled
2 An act relating to fire protection systems;
3 amending s. 553.79, F.S.; establishing criteria
4 and design approval requirements for fire
5 protection systems; providing responsibilities
6 of professional engineers and fire protection
7 system contractors in the design and
8 installation of such systems; amending s.
9 633.021, F.S.; providing that certain design
10 and layout activities of fire protection
11 systems contractors do not constitute the
12 practice of engineering; providing an effective
13 date.

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

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

19 553.79 Permits; applications; issuance; inspections.--

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

26 (a) Electrical documents for any new building or
27 addition which requires an aggregate service capacity of 600
28 amperes (240 volts) or more on a residential electrical system
29 or 800 amperes (240 volts) or more on a commercial or
30 industrial electrical system and which costs more than
31 \$50,000.

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

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

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

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

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

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

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

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

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

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2 No such document is ~~shall be~~ valid unless a professional
3 engineer who possesses a valid certificate of registration has
4 signed, dated, and stamped such document as provided in s.
5 471.025.

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

9 553.79 Permits; applications; issuance; inspections.--

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

18 (a) Electrical documents for any new building or
19 addition which requires an aggregate service capacity of 600
20 amperes (240 volts) or more on a residential electrical system
21 or 800 amperes (240 volts) or more on a commercial or
22 industrial electrical system and which costs more than
23 \$50,000.

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

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

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

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

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

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

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

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

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

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

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

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

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

31 633.021 Definitions.--As used in this chapter:

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

6 (b) "Contractor II" means a contractor whose business
7 is limited to the execution of contracts requiring the ability
8 to lay out, fabricate, install, inspect, alter, repair, and
9 service water sprinkler systems, water spray systems,
10 foam-water sprinkler systems, foam-water spray systems,
11 standpipes, combination standpipes and sprinkler risers, all
12 piping that is an integral part of the system beginning at the
13 point where the piping is used exclusively for fire
14 protection, sprinkler tank heaters, air lines, thermal systems
15 used in connection with sprinklers, and tanks and pumps
16 connected thereto, excluding preengineered systems.

17 (c) "Contractor III" means a contractor whose business
18 is limited to the execution of contracts requiring the ability
19 to lay out, fabricate, install, inspect, alter, repair, and
20 service CO₂ systems, foam extinguishing systems, dry
21 chemical systems, and Halon and other chemical systems,
22 excluding preengineered systems.

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

1 (e) "Contractor V" means a contractor whose business
2 is limited to the execution of contracts requiring the ability
3 to lay out, fabricate, install, inspect, alter, repair, and
4 service the underground piping for a fire protection system
5 using water as the extinguishing agent beginning at the point
6 at which the piping is used exclusively for fire protection
7 and ending no more than 1 foot above the finished floor.

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

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

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

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11 SENATE SUMMARY

12 Establishes criteria and design approval requirements for
13 fire protection systems. Establishes responsibilities of
14 professional engineers and fire protection system
15 contractors in the design and installation of such
16 protection system contractors do not constitute the
17 practice of engineering.
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