

## NFPA 13-1999 Installation Of Sprinkler Systems

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675 IAC 13-1-8 NFPA 13; installation of sprinkler systems

Authority: IC 22-13-2-2; IC 22-13-2-13

Affected: IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 36-7

Sec. 8. (a) Standard for the Installation of Sprinkler Systems, NFPA 13, 1999, published by National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, Massachusetts 02269-9101 is adopted by reference except as revised hereafter.

(b) NFPA 11A, NFPA 22, NFPA 24, NFPA 40, NFPA 86C, NFPA 214, and NFPA 703 are not adopted, are not enforceable, and are referenced for information purposes only.

(c) Amend section 1-2 to read as follows: 1-2 Purpose. The purpose of this standard is to provide a reasonable degree of protection for life and property from fire through standardization of design, installation, and testing requirements for sprinkler systems based upon sound engineering principles, test data, and field experience. For alternate materials, methods, and design, see the General Administrative Rules (675 IAC 12-6-11).

(d) Delete section 1-3 in its entirety.

(e) Amend the following definitions in subsection 1-4.1 to read as follows:

APPROVED means, as to materials, equipment, and types of construction, acceptance by the authority having jurisdiction by one (1) of the following methods: investigation or tests conducted by recognized authorities; or investigation or tests conducted by technical or scientific organizations; or accepted principles. The investigation, tests, or principles shall establish that the materials, equipment, and types of construction are safe for their intended purpose.

AUTHORITY HAVING JURISDICTION means the state building commissioner, the state fire marshal, or an officer of a local unit of government empowered by law to administer and enforce the rules of the commission. For the purposes of Industrialized Building Systems (675 IAC 15), authority having jurisdiction means the state building commissioner.

LISTED means equipment or materials included in a list published by an organization engaged in product evaluation that maintains periodic inspection of production of listed equipment or materials and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.

(f) Add the following definitions to subsection 1-4.1 to read as follows:

BUILDING CODE is the building code in effect in Indiana at the time of construction, remodeling, alteration, addition, or repair of a structure.

FIRE CODE is the fire code in effect in Indiana at the time of construction, remodeling, alteration, addition, or repair of a structure.

LABELED. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization engaged in product evaluation that maintains periodic inspection of production of labeled equipment or materials and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

NFPA 70 means the Indiana Electrical Code (675 IAC 17).

NFPA 72 means the National Fire Alarm Code (675 IAC 22-2.2-17).

(g) Amend the following definitions in subsection 1-4.2 to read as follows:

DWELLING UNIT means any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking, and sanitation, as required by the Indiana Building Code (675 IAC 13), for not more than one (1) family, or a congregate residence for ten (10) or fewer persons. For purposes of this standard, dwelling unit includes hotel rooms, dormitory rooms, apartments, condominiums, sleeping rooms in

nursing homes, and similar living units.

SHOP WELDED. As used in this standard, shop, in the term shop welded, means either of the following:

(1) At a sprinkler contractors' or fabricators' premises.

(2) In an area specifically designed for such work, such as a detached outside location, maintenance shop, or other area of noncombustible or fire-resistive construction free of combustible and flammable contents and segregated from adjacent areas.

(h) Amend the following definition in subsection 1-4.8 as follows: SHELF-STORAGE means storage on shelves less than thirty (30) inches (seven hundred sixty-two (62) [sic.] millimeters) deep with the distance between shelves not exceeding three (3) feet (nine hundred fourteen (914) millimeters) vertically. There shall be a minimum of thirty (30) inches (seven hundred sixty-two (762) millimeters) aisle width between shelf rows.

(i) Delete the last sentence of subsection 1-6.2.

(j) Delete sections 2-2.3 through 2-2.4.3.

(k) Amend Exception No. 3 in subsection 3-8.1.1 to read as follows: A nonindicating valve, such as an underground gate valve with an approved roadway box complete with T-wrench, acceptable to the water purveyor shall be permitted.

(l) Amend subsection 3-9.1 to read as follows: The fire department connection(s) shall be internal threaded swivel fitting(s) having threads compatible with those of the local fire department.

(m) Delete subsection 4-5.1.

(n) Amend the first sentence of subsection 4-6.1.6 to read as follows: Materials added to water shall not adversely affect the fire fighting properties of the water.

(o) Amend subsection 4-9.1 to read as follows: In cooking areas protected by automatic sprinklers, additional sprinklers or automatic spray nozzles shall be provided to protect commercial-type ventilation systems that are designed to carry away grease-laden vapors as required by the Indiana Mechanical Code (675 IAC 18).

(p) Delete subsection 4-9.8.3 and substitute as follows: See the Indiana Mechanical Code (675 IAC 18) for shut off requirements.

(q) Amend subsection 5-2 by deleting "NFPA Standards" in two (2) places and substituting "rules of the commission as applicable".

(r) Amend subsection 5-4.5.1 by inserting ", sleeping rooms in health care facilities" after the words "dwelling units".

(s) Amend subsection 5-4.6.3 to read as follows: ESFR sprinklers shall be permitted for use in buildings with unobstructed or obstructed construction. Where depths of the solid structural members (beams, stems, etc.) exceed twelve (12) inches (three hundred four (304) mm). ESFR sprinklers shall be installed in each channel formed by the solid structural members. Minimum sprinkler spacing and area coverage shall comply with 5-11.2.3 and 5-11.3.4.

(t) Delete Exception 1 in subsection 5-5.6.

(u) Delete the Exception in subsection 5-6.6.

(v) Delete the Exception in subsection 5-8.6.

(w) Amend subsection 5-13.4 Exception 2(b) by deleting "NFPA 101 Life Safety Code" and substituting "applicable rules of the Commission".

(x) Amend the exception to subsection 5-13.6.3 to read as follows: Exception: Sprinklers are not required at the tops of noncombustible hoistways of passenger elevators whose car enclosure materials meet the requirements of the Indiana Safety Code for Elevators, Escalators, Manlifts, and Hoists (675 IAC 21).

(y) Delete the second sentence of subsection 5-14.2.6.1.

(z) Amend subsection 5-15.5.1.1 in two (2) places:

(1) delete "lines" and substitute "connections".

(2) after the words "Hose System", add "675 IAC 13".

(aa) Amend subsection 5-16.1 by adding "675 IAC 22-2.2-6" after "materials".

(bb) Delete sections 5-17 and 5-18 without substitution.

(cc) Amend subsection 5-19.1 by adding "675 IAC 22-2.2-10" after "Processes".

(dd) Delete section 5-20 without substitution.

(ee) Amend section 5-21 by adding "675 IAC 13" in two (2) places:

(1) in 5-21.1 after "equipment"; and

(2) in 5-21.2 after "NFPA 82" and before "shall be used".

(ff) Delete section 5-22 without substitution.

(gg) Delete sections 5-23, 5-24, 5-25, 5-26, 5-27, 5-28, 5-29, 5-30, and 5-31 without substitution.

- (hh) Amend subsection 6-1.1 as follows:
- (1) Add to the second line of Exception 1 after "engineer" and before "to", the following: "or architect".
  - (2) Delete, in the last paragraph of Exception 1, "when required by the reviewing authority" and substitute to read as follows: to the office of the state building commissioner as required by the General Administrative Rules (675 IAC 12-6).
- (ii) Amend subsection 6-3.3.1.2 by deleting the words "by the authority having jurisdiction" from the exception.
- (jj) Amend the first sentence of subsection 6-4.1 to read as follows: Sprinkler systems shall be protected to prevent pipe breakage where subject to earthquakes in accordance with the requirements of 6-4 and the Indiana Building Code (675 IAC 13) except where alternative methods of providing earthquake protection of sprinkler systems is based on a dynamic seismic analysis certified by a design professional, such that system performance will be at least equal to that of the building structure under expected seismic forces.
- (kk) Delete the exception in subsection 6-4.5.6 without substitution.
- (ll) Amend the subsection 6-4.5.8 as follows:
- (1) Amend the exception to read as follows: Exception: Other pipe schedules and materials not specifically included in Table 6-4.5.8 shall be permitted to be used if certified by a registered professional engineer or architect to support the loads determined in accordance with the above criteria. Calculations shall be submitted to the office of the state building commissioner as required by the General Administrative Rules (675 IAC 12-6).
  - (2) In Table 6-4.5.8, change the second slenderness ratio for pipe (Schedule 40) from 200 to 100.
- (mm) Amend subsection 6-4.5.9 Exception 2 to read as follows: Other fastening methods are acceptable for use if certified by a registered professional engineer or architect to support the loads determined in accordance with the criteria in 6-4.5.9.
- (nn) Amend subsection 7-9.2.2 as follows:
- (1) After the last word "criteria", insert ", but not less than to provide a minimum of .01 gpm/per sq ft over the design area".
  - (2) Add an exception to read as follows: Exception: For modification or alteration to existing systems equipped with residential sprinklers, the listed discharge criteria shall be permitted to be used.
- (oo) Amend subsection 7-9.4.1 by deleting "NFPA Standards" and substituting "rules of the Fire Prevention and Building Safety Commission".
- (pp) Amend subsection 7-9.4.2.1 by deleting "NFPA standards" and substituting "rules of the Fire Prevention and Building Safety Commission".
- (qq) Amend subsection 7-9.4.2.2 by deleting from the last sentence "NFPA Standards" and substituting "rules of the Fire Prevention and Building Safety Commission".
- (rr) Amend subsection 7-9.5.1 by deleting "NFPA Standards" and substituting "rules of the Fire Prevention and Building Safety Commission".
- (ss) Delete subsections 7-10.1 and 7-10.2 and substitute the following:
- (1) Flammable and combustible liquids: See Article 79 in the Indiana Fire Code (675 IAC 22-2.2).
  - (2) Aerosol products: See Article 88 in the Indiana Fire Code (675 IAC 22-2.2).
- (tt) Amend subsection 7-10.3.1 by adding "675 IAC 22-2.2-6" after "Materials".
- (uu) Delete subsections 7-10.4, 7-10.5, 7-10.6, and 7-10.7 without substitution.
- (vv) Amend subsection 7-10.8.1 by adding "675 IAC 22-2.2-10" after "Processes".
- (ww) Amend subsection 7-10.9.1 by adding "675 IAC 22-2.2-11" after "Plants".
- (xx) Amend subsection 7-10.9.2 to read as follows: The need for automatic water spray system protection for acetylene cylinder charging manifolds and cylinder storage areas shall be determined by the building code (675 IAC 13). Where automatic water spray systems are installed, they shall be in accordance with NFPA 15, Standard for Water Spray Fixed Systems for Fire Protection (675 IAC 22-2.2-4).
- (yy) Delete subsection 7-10.10 in its entirety without substitution.
- (zz) Amend subsection 7-10.11.1 by adding "675 IAC 22-2.2-15" after "Plants".
- (aaa) Amend subsection 7-10.12.1 by adding "675 IAC 22-2.2-16" after "Gas".
- (bbb) Amend subsection 7-10.13.1 to read as follows: Ventilation control and Fire Protection of Commercial Cooking Operations shall be in accordance with the Indiana Mechanical Code (675 IAC 18).
- (ccc) Delete sections 7-10.14, 7-10.15, 7-10.16, 7-10.17, 7-10.18, 7-10.19, 7-10.20, 7-10.21, 7-10.22, 7-10.23, 7-10.24, 7-10.25, 7-10.26, and 7-10.27 without substitution.
- (ddd) Delete section 8-1 in its entirety and substitute to read as follows: Plans and specifications shall be filed

as required by the General Administrative Rules (675 IAC 12).

(eee) Amend subsection 8-4.1 by deleting from the last sentence "standards" and substituting "rules of the Fire Prevention and Building Safety Commission".

(fff) Amend the footnote to Table 8-4.4.5 by deleting "is permitted to consider" and substituting "may approve".

(ggg) Amend section 8-6 to read as follows: Open sprinkler and deluge systems shall be hydraulically calculated.

(hhh) Amend subsection 9-1.7 to read as follows: Where meters are provided, they shall be listed.

(iii) Amend subsection 9-1.8 to read as follows: Where equipment is installed to guard against possible contamination of the water supply system, such equipment and devices shall be listed for fire protection service.

(jjj) Amend subsection 9-2.1 to read as follows: A connection to a water purveyors distribution system shall be an acceptable water supply source. The volume and pressure of a public water supply shall be determined from waterflow test data.

(kkk) Amend subsection 9-2.3.1.1 to read as follows: An approved pressure tank shall be an acceptable water supply source.

(lll) Amend subsection 9-2.4 to read as follows: An approved elevated tank shall be an acceptable water supply source.

(mmm) Amend section 10-1(1) to read as follows: Notify the owner's representative of the time and date testing will be performed.

(nnn) Amend the Contractors' Material and Test Certificate for Aboveground Piping as follows:

(1) Delete from the second paragraph of Procedure "approving authorities" in two (2) places.

(2) Delete the Plans category.

(ooo) Amend the Contractors' Material and Test Certificate for Underground Piping as follows:

(1) Delete from the second paragraph of Procedure "approving authority" in two (2) places.

(2) Delete the Plans category.

(ppp) Delete Chapter 11 in its entirety.

(qqq) Amend section 12-1 by deleting everything after the words "Protection Systems" and substitute "675 IAC 22-2.2-5".

(rrr) Delete Chapter 13 in its entirety. (*Fire Prevention and Building Safety Commission; 675 IAC 13-1-8; filed Sep 5, 1986, 9:22 a.m.: 10 IR 14; filed Oct 2, 1989, 4:25 p.m.: 13 IR 291; filed Aug 15, 1997, 8:54 a.m.: 21 IR 94; filed Nov 14, 2001, 4:55 p.m.: 25 IR 1166; filed Nov 25, 2002, 9:10 a.m.: 26 IR 1095; readopted filed Sep 21, 2007, 9:20 a.m.: 20071010-IR-675070388RFA; readopted filed Oct 10, 2007, 9:16 a.m.: 20071031-IR-675070388RFA*)