NFPA 13-2010 Standard for Installation of Sprinkler Systems

NFPA 13-2010: Installation of Sprinkler Systems (The following Indiana Amendments are reprinted here from the Indiana government web site for your convenience. We have not edited or reformatted these pages, nor have we reviewed the for accuracy. We assume them to be identical to the official amendments as originally printed in the Indiana Register. We make no stated or implied claim as to their accuracy.)

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675 IAC 28-1-5 NFPA 13; Standard for the installation of sprinkler systems

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

Affected: IC 10-19-2; IC 10-19-7; IC 22-11-8; IC 22-12; IC 22-13; IC 22-14; IC 22-15; IC 25-4; IC 25-31; IC 36-7

Sec. 5. (a) That certain standard, being titled NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 edition, published by the National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, Massachusetts 02169-7471 be and the same is hereby adopted by reference as if fully set out in this section, including all errata effective on September 1, 2011, except as revised hereafter. This rule is available for review and reference at the:

Legal and Code Services Section
Indiana Department of Homeland Security
Indiana Government Center South
302 West Washington Street, Room W246
Indianapolis, Indiana 46204

(b) Delete Section 1.2 in its entirety and substitute 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.

(c) Delete Section 1.4 in its entirety without substitution.

(d) Delete the text of Section 1.5 and substitute the following: See the General Administrative Rules, 675 IAC 12-6-11.

(e) Delete the text of Section 1.6 and substitute the following: See the General Administrative Rules, 675 IAC 12-6-11.

(f) Amend Section 2.2 as follows:

(1) In the reference to NFPA 11, delete "2005 edition" and insert "as adopted at 675 IAC 28-1-3".
(2) In the reference to NFPA 14, delete "2007 edition" and insert "as adopted at 675 IAC 13-1-9".
(3) In the reference to NFPA 15, delete "2007 edition" and insert "as adopted at 675 IAC 28-1-8".
(4) In the reference to NFPA 20, delete "2010 edition" and insert "as adopted at 675 IAC 13-1-10".
(5) In the reference to NFPA 25, delete "2008 edition" and insert "as adopted at 675 IAC 28-1-12".
(6) In the reference to NFPA 33, delete "2007 edition" and insert "as adopted at 675 IAC 28-1-13".
(7) In the reference to NFPA 51B, delete "2009 edition" and insert "as adopted at 675 IAC 28-1-20".
(8) In the reference to NFPA 59, delete "2008 edition" and insert "as adopted at 675 IAC 28-1-23".
(9) In the reference to NFPA 59A, delete "2009 edition" and insert "as adopted at 675 IAC 28-1-24".
(10) In the reference to NFPA 70, delete "2008 edition" and insert "as adopted at 675 IAC 17-1-8".
(11) In the reference to NFPA 72, delete "2010 edition" and insert "as adopted at 675 IAC 28-1-28".
(12) In the reference to NFPA 82, delete "2009 edition" and insert "as adopted at 675 IAC 28-1-30".

(g) Amend Section 2.3.2 as follows:

(1) In the reference to ASME BPVC-IX, BPVC Section IX – Welding and Brazing Qualifications, delete "2004 edition" and insert "as adopted at 680 IAC 2 [675 IAC 30]".
(2) In the reference to ASME A17.1, Safety Code for Elevators and Escalators, delete "2000 edition" and insert "as adopted at 675 IAC 21".

(h) Amend Section 2.4 as follows:

(1) In the reference to NFPA 33, delete "2007 edition" and insert "as adopted at 675 IAC 28-1-13".

(2) In the reference to NFPA 51, delete "2007 edition" and insert "as adopted at 675 IAC 28-1-18".

(3) In the reference to NFPA 59, delete "2008 edition" and insert "as adopted at 675 IAC 28-1-23".

(4) In the reference to NFPA 59A, delete "2009 edition" and insert "as adopted at 675 IAC 28-1-24".

(5) In the reference to NFPA 70, delete "2008 edition" and insert "as adopted at 675 IAC 17-1-8".

(6) In the reference to NFPA 82, delete "2009 edition" and insert "as adopted at 675 IAC 28-1-30".

(7) In the reference to NFPA 86, delete "2007 edition" and insert "as adopted at 675 IAC 28-1-31".

(i) Amend Section 3.1 as follows:

(1) Amend the first sentence by inserting "solely" after "apply".

(2) Delete the last sentence without substitution.

(j) Amend Section 3.2 as follows:

(1) Delete the definition of APPROVED and substitute to read as follows: APPROVED means acceptance by the authority having jurisdiction by one (1) of the following methods:

(i) Investigation or tests conducted by nationally recognized authorities; or

(ii) Investigation or tests conducted by nationally recognized technical or scientific organizations; or

(iii) Nationally accepted principles.

The investigation, tests, or principles shall establish that the method, material, equipment, design, or type of construction is safe for its intended purpose.

(2) Delete the definition of AUTHORITY HAVING JURISDICTION and substitute to read as follows: AUTHORITY HAVING JURISDICTION means the Division of Fire and Building Safety or officer of a local unit of government empowered by law to administer and enforce the rules of the commission.

(3) Add the definition of LABELED to read: LABELED means 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.

(4) Delete the definition of LISTED and substitute to read as follows: 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.

(5) Delete the definition of SHOULD without substitution.

(k) Amend Section 3.3 as follows:

(1) Add the definition of BUILDING CODE to read: BUILDING CODE means the Indiana Building Code (675 IAC 13) in effect in Indiana at the time of construction, remodeling, alteration, or addition of the structure.

(2) Add the definition of DESIGN PROFESSIONAL to read: DESIGN PROFESSIONAL means an architect who is registered under IC 25-4 or a professional engineer who is registered under IC 25-31.

(3) Add the definition of DIVISION OF FIRE AND BUILDING SAFETY to read: DIVISION OF FIRE AND BUILDING SAFETY means the Division of Fire and Building Safety of the Indiana Department of Homeland Security created pursuant to IC 10-19-7.

(4) Add the definition of FIRE CODE to read: FIRE CODE means the Indiana Fire Code (675 IAC 22) in effect in Indiana at the time of inspection by the authority having jurisdiction or, with respect to construction required to be filed under 675 IAC 12-6, 675 IAC 22 in effect at the time of construction, remodeling, alteration, or addition of the structure.

(5) Add the definition of Indiana Mechanical Code to read as follows: INDIANA MECHANICAL CODE means the Indiana Mechanical Code (675 IAC 18) in effect at the time of construction, remodeling, alteration, or addition of the structure.

(6) Delete the definition of NONCOMBUSTIBLE MATERIAL and substitute to read as follows: NONCOMBUSTIBLE MATERIAL, as applied to building construction materials, means a material that, in the form in which it is used, is either one (1) of the following:

i. Material of which no part will ignite and burn when subjected to fire. Any material conforming to ASTM E 136 shall be considered noncombustible.

ii. Material having a structural base of noncombustible material as defined in item i above, with a surfacing material not over one-eighth (1/8) inch (3.2 mm) thick which has a flame-spread rating of fifty (50) or less.

"Noncombustible" does not apply to surface finish materials. Material required to be noncombustible for reduced clearances to flues, heating appliances, or other sources of high temperature shall consist of material conforming to item i. No material shall be classed as noncombustible that is subject to increase in combustibility or flame-spread rating, beyond the limits herein established, through the effects of age, moisture, or other atmospheric condition.

Flame-spread rating as used herein refers to rating obtained according to tests conducted as specified in ASTM E 84.

(7) Delete the definition of SHOP WELDED and substitute to read: SHOP WELDED as used in this standard, "shop", in the term "shop welded" means either of the following:

(i) At a sprinkler contractor's or fabricator's premises.

(ii) 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.

(l) Amend Section 3.4 to add the definition of PREMIXED ANTIFREEZE SOLUTION to read as follows: PREMIXED ANTIFREEZE SOLUTION means a mixture of an antifreeze material with water that is prepared by the manufacturer with a quality control procedure in place that ensures that the antifreeze solution remains homogeneous.

(m) Delete Section 3.10 in its entirety without substitution.

(n) Delete Section 4.2.2 without substitution.

(o) In Section 4.3, delete item (3) without substitution.

(p) Add Section 4.5 Air, Nitrogen or other approved gas to read as follows: Air, nitrogen or other approved gas. Where air is used to charge, maintain, or supervise sprinkler systems, nitrogen or other approved gas shall be permitted to be used.

(q) Delete the text of Section 5.6.3 and substitute the following: See the Indiana Fire Code.

(r) Delete the text of Section 5.6.4 and substitute the following: See the Indiana Fire Code.

(s) Delete the text of Section 5.6.5 and substitute the following: See the Indiana Fire Code.

(t) Amend Section 6.5.2.2.2 by deleting "NFPA 51B, Standard for Fire Prevention during Welding, Cutting, and Other Hot Works" and inserting "the Indiana Fire Code".

(u) Amend Section 6.5.2.2.3 by deleting "NFPA 51B, Standard for Fire Prevention during Welding, Cutting, and Other Hot Works" and inserting "the Indiana Fire Code".

(v) Amend Section 6.5.2.5.2 by deleting "or other applicable qualification standard as required by the authority having jurisdiction".

(w) Delete the text of Section 6.5.2.5.4 and substitute to read as follows: See the General Administrative Rules, 675 IAC 12-4.

(x) Amend Section 7.6.1.5 by inserting "by volume" after "concentration".

(y) Delete the text of Section 7.6.2.1 and substitute to read as follows: Antifreeze solutions shall be limited to premixed antifreeze solutions of glycerin (chemically pure or United States Pharmacopoeia)

ninety-six and five-tenths (96.5) percent at a maximum concentration of forty-eight (48) percent by volume, or propylene glycol at a maximum concentration of thirty-eight (38) percent by volume.
(z) Add Section 7.6.2.1.1 to read as follows: Premixed antifreeze solutions of propylene glycol exceeding forty (40) percent concentration by volume shall be permitted for use with ESFR sprinklers where the ESFR sprinklers are listed for such use in a specific application.
(aa) Add Section 7.6.2.1.2 to read as follows: Premixed antifreeze solutions, other than those described in Section 7.6.2.1 of this rule, that are listed for use in sprinkler systems shall be permitted to be used.
(bb) Add Section 7.6.2.1.3 to read as follows: All premixed antifreeze solutions shall be provided with a certificate from the manufacturer indicating the type of antifreeze, concentration by volume, and freezing point.
(cc) Delete Section 7.6.2.3 without substitution.
(dd) Delete Table 7.6.2.3 without substitution.
(ee) Delete the text of Section 7.6.2.4 and substitute to read as follows: A premix antifreeze solution with a freezing point below the expected minimum temperature for the locality shall be provided.
(ff) Delete Section 7.6.2.5 without substitution.
(gg) Delete Figures 7.6.2.5 (a-c) without substitution.
(hh) Delete Section 7.6.2.6 without substitution.
(ii) Delete the text of Section 7.10.3.4.1 and substitute to read as follows: Where the entire exhaust duct is protected with an approved automatic fire suppression system in accordance with the Indiana Mechanical Code, sprinkler(s) or automatic spray nozzle(s) shall not be required.
(jj) Delete the text of Section 7.10.8.3 and substitute as follows: See the Indiana Mechanical Code for shut-off requirements.(kk) Amend Section 8.2.1 by deleting "NFPA Standards" and inserting "rules of the commission, as applicable".
(ll) Amend Section 8.2.3 by deleting "NFPA Standards" and inserting "rules of the commission, as applicable".
(mm) Amend Section 8.15.8.1.2 by deleting "NFPA 101, Life Safety Code" and inserting "the Indiana Building Code".(nn) Amend Section 8.15.12 by deleting "the authority having jurisdiction or the" and inserting "other".
(oo) Add Section 8.16.2.5.3.1.1 to read as follows: Auxiliary drains piped to accommodate the accumulation of water condensate shall be installed in the vertical position to allow the free flow of water out of the drain termination.
(pp) Amend Section 8.17.5.1.1.1 by deleting "subject to the approval of the authority having jurisdiction".(qq) Amend Section 9.1.1.2 as follows:
(1) In the first sentence, delete "registered professional engineer" and insert "design professional".
(2) In item (5), delete "when required by the reviewing authority" and insert "to the Division of Fire and Building Safety as required by the General Administrative Rules in 675 IAC 12-6".
(rr) Delete the text of Section 9.3.1.1 and substitute to read as follows: Sprinkler systems shall be protected to prevent pipe breakage where subject to earthquakes in accordance with the requirements of Section 9.3 of this rule and the Indiana Building Code.
Exception: Where alternative methods of providing earthquake protection are provided, the design shall be based on a dynamic seismic analysis certified by a design professional. The system performance shall be at least equal to that of the building structure under expected seismic forces.
(ss) Amend Section 9.3.5.6.1 by deleting, in the first sentence, "or as required by the authority having jurisdiction".
(tt) Amend Section 9.3.5.6.2 by deleting "authority having jurisdiction or from" and inserting "the Indiana Building Code".
(uu) Amend Section 9.3.5.6.3 by deleting "Where the authority having jurisdiction does not specify the horizontal seismic load".

(vv) Amend Section 10.8.3.1.2.6 by deleting "if approved for the specific installation by the authority having jurisdiction".(ww) Amend Section 12.2.1 by deleting "where required by the authority having jurisdiction".
(xx) Delete Section 12.6.4 without substitution.
(yy) Delete Section 12.6.5 without substitution.
(zz) Amend Section 12.12.2.1 by deleting item (7) without substitution.
(aaa) Delete Section 12.12.2.3.1 without substitution.
(bbb) Delete the text of Section 21.2.1 and substitute to read as follows: Flammable and combustible liquids: See Chapter 34 of the Indiana Fire Code.
(ccc) Delete the text of Section 21.3.1 and substitute to read as follows: Aerosol products: See Chapter 28 of the Indiana Fire Code.
(ddd) Delete Section 21.5 without substitution.
(eee) Delete Section 21.7 without substitution.
(fff) Delete Section 21.8 without substitution.
(ggg) Amend Section 21.12.1.1 by adding "675 IAC 28-1-23" after "Code".
(hhh) Amend Section 21.13.1 by adding "675 IAC 28-1-24" after "Gas".
(iii) Amend Section 21.18.1.1 by deleting "21.21.2" and inserting "21.18.2".
(jjj) Amend Section 21.22.1.2 by deleting "With the approval of the authority having jurisdiction".
(kkk) Delete the text of Section 22.1.1 and substitute to read as follows: Plans and specifications shall be filed as required by the General Administrative Rules in 675 IAC 12-6.
(lll) Delete Section 22.1.2 without substitution.
(mmm) Amend Section 22.3.5.2, Summary Sheet, by deleting "(13) Authority having jurisdiction".
(nnn) Amend Section 22.4.1.4 by deleting "standards" and inserting "rules of the fire prevention and building safety commission".
(ooo) Delete the footnote to Table 22.4.4.7 without substitution.
(ppp) Amend Section 23.1.5.1 by deleting "the owner(s) shall notify the sprinkler system installer and".
(qqq) Amend Section 23.1.5.2 by deleting "the owner(s) shall notify the sprinkler system installer and".
(rrr) Delete Chapter 25 in its entirety without substitution.
(sss) Add Section 26.2.4 to read as follows: Sprinkler systems out of service shall follow the requirements of the Indiana Fire Code.
(ttt) Add Section 26.2.5 to read as follows: Sprinkler systems shall be maintained as required by 675 IAC 12-4-9 and required sprinkler systems shall remain operational as required by the Indiana Fire Code.
(uuu) The annexes are not adopted as part of this code, are intended for use as a guide only, and are not enforceable as part of this code.

(Fire Prevention and Building Safety Commission; 675 IAC 28-1-5; filed Aug 28, 2012, 2:00 p.m.: 20120926-IR-675110683FRA; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)