

Document: Proposed Rule

Source: March 1, 2001, Indiana Register, Volume 24, Number 6

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**TITLE 675 FIRE PREVENTION AND BUILDING
SAFETY COMMISSION**

Proposed Rule
LSA Document #00-261

DIGEST

Amends 675 IAC 13-1, the Indiana fire safety standards, so as to continue to maintain rules that accurately address current design and construction practice by adopting by reference newer editions of currently adopted National Fire Protection Association (NFPA) Standards (NFPA 13, NFPA 13R, NFPA 14, AND NFPA 20). Amends 675 IAC 13-2.3-102, 675 IAC 13-2.3-103, 675 IAC 22-2.2-535, and 675 IAC 22-2.2-536, the Indiana building code and Indiana fire code, by changing references to NFPA 231 (675 IAC 22-2.2-20) and NFPA 231C (675 IAC 22-2.2-19) to NFPA 13 (675 IAC 13-1-8). Repeals 675 IAC 22-2.2-19 (NFPA 231) and 675 IAC 22-2.2-20 (NFPA 231C), as NFPA 231 and NFPA 231C are no longer published by NFPA and the subject matter that was contained in NFPA 231 and NFPA 231C is now contained in NFPA 13, 1999 Edition. Effective 30 days after filing with the secretary of state.

675 IAC 13-1-8	675 IAC 13-2.3-103
675 IAC 13-1-9	675 IAC 22-2.2-19
675 IAC 13-1-10	675 IAC 22-2.2-20
675 IAC 13-1-25	675 IAC 22-2.2-535
675 IAC 13-2.3-102	675 IAC 22-2.2-536

SECTION 1. 675 IAC 13-1-8 IS AMENDED TO READ AS FOLLOWS:

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, ~~1996~~, **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 13D~~, **11A**, NFPA 22, NFPA 24, ~~NFPA 25~~, ~~NFPA 30~~, ~~NFPA 30B~~, NFPA 40, ~~NFPA 51B~~, ~~NFPA 81~~, ~~NFPA 96~~, ~~NFPA 231D~~, ~~NFPA 231F~~, ~~NFPA 232~~, ~~NFPA 251~~, ~~NFPA 409~~, ~~NFPA 86C~~, **NFPA 214**, and NFPA 703 are not adopted, are not enforceable, and are referenced for information purposes only.

~~(c) Delete the note following the first paragraph of section 1-1.~~

~~(d)~~ **(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).

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

~~(f)~~ **(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 or 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.

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.

(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) Add a new definition to Amend the following definitions in subsection ~~1-4.1~~ 1-4.2 to read as follows: ~~NFPA 70~~ means the Indiana Electrical Code (675 IAC 17).

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) ~~Delete~~ Amend the following definition in subsection ~~1-4.7.4.1~~ in its entirety: 1-4.8 as follows:

SHELF-STORAGE means storage on shelves less than thirty (30) inches (seven hundred sixty-two (762) millimeters) deep with the distance between shelves not exceeding three (3) feet (nine hundred fourteen (914) millimeters) vertically.

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

(j) Amend subsection ~~2-6.1~~ as follows:

(1) Add to the second line of the exception after "engineer" and before "to", the following: or architect.

(2) Delete, in the last paragraph, "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~~).

(j) Delete the text of Chapter 2 and substitute to read as follows: Commodity and occupancy classification shall be as set forth in Article 81 of the Indiana Fire Code (675 IAC 22-2.2).

(k) Amend Exception No. 3 in subsection ~~2-7.1.1~~ 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.

~~(h)~~ **(m) Delete the exception in subsection 2-8.1: 4-5.1.**

~~(m)~~ Delete subsection 3-5.1 in its entirety.

(n) Amend the first sentence of subsection 3-6.1.6 **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 3-9.1 **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 3-9.8.3 **4-9.8.3** and substitute as follows: See the Indiana Mechanical Code (675 IAC 18) for shut off requirements.

(q) Amend subsection 4-2 **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) millimeters). 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”.

~~(r)~~ **(x) Amend the exception to subsection 4-13.5.3 **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).**

~~(s)~~ Delete the exception in subsection 4-6.6.

~~(t)~~ **(y) Delete the second sentence of subsection 4-14.3.6.1: **5-14.2.6.1.****

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

(1) delete “lines” and substitute “connections”.

(2) after “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 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 ~~4-14.4.3.4.1~~ **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 ~~4-14.4.3~~ **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.

(v) Amend Exception No. 2 of subsection ~~4-14.4.3.5.3~~ to read as follows: When the use of other horizontal force factors are used, the loads of Table ~~4-14.4.3.5.3~~ or those determined in accordance with Exception No. 1 shall be adjusted by the following multipliers:

Horizontal Force Factor F_p	Multiplying Factor
0.2 W_p	0.4
0.4 W_p	0.8
0.6 W_p	1.2
0.8 W_p	1.6
1.0 W_p	2.0
1.2 W_p	2.4

(w) Amend the exception to ~~4-14.4.3.5.5~~ to read as follows: Exception: Other pipe schedules and materials not specifically included in Table ~~4-14.4.3.5.5~~ are acceptable for use if certified by a design professional to support the loads determined in accordance with the above criteria.

(x) Amend Exception No. 2 to subsection ~~5-2.2.1~~ to read as follows: Exception No. 2: The pipe schedule method shall be permitted for additions or modifications to existing extra hazard pipe schedule systems if approved by the authority having jurisdiction.

(y) Amend Exception No. 1 to subsection ~~5-2.3.1.1~~ to read as follows: Exception No. 1: Where other rules of the Fire Prevention and Building Safety Commission have developed sprinkler area/density or other design criteria and water supply requirements appropriated for fire control or suppression of Special Occupancy Hazards, they shall take precedence.

(z) Amend subsection ~~5-3.4.1~~ to read as follows: Large drop sprinklers shall be permitted to protect ordinary hazard, miscellaneous storage, and other storage as specified by other rules of the Fire Prevention and Building Safety Commission as applicable.

(kk) Delete the exception in subsection 6-4.5.6 without substitution.

(ll) Amend 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”.

~~(aa)~~ (pp) Amend subsection ~~5-3-4.2.1~~ 7-9.4.2.1 by deleting “NFPA standards” and substituting “rules of the Fire Prevention and Building Safety Commission”.

~~(bb)~~ (qq) Amend subsection ~~5-3-4.2.2~~ 7-9.4.2.2 by deleting from the last sentence “NFPA Storage Standards” and substituting “rules of the Fire Prevention and Building Safety Commission”.

~~(cc)~~ (rr) Amend subsection ~~5-3-5.1~~ 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 without substitution.

(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.

~~(dd)~~ (ddd) Delete section ~~6-4~~ 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).

~~(ee)~~ (eee) Amend subsection ~~6-4.1~~ 8-4.1 by deleting from the last sentence “standards” and substituting “rules of the Fire Prevention and Building Safety Commission”.

~~(ff)~~ **(fff)** Amend the footnote to Table ~~6-4.4.5~~ **8-4.4.5** by deleting “is permitted to consider” and substituting “may approve”.

~~(gg)~~ **(ggg)** Amend ~~subsection 6-5.5~~ **section 8-6** to read as follows: Open sprinkler and deluge systems shall be hydraulically calculated.

~~(hh)~~ **(hhh)** Delete subsection ~~7-1.3~~ **9-1.7** without substitution.

(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.

~~(ii)~~ **(jjj)** Amend subsection ~~7-2.1~~ **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.

~~(jj)~~ **(kkk)** Amend subsection ~~7-2.3.1.1~~ **9-2.3.1.1** to read as follows: An approved pressure tank shall be an acceptable water supply source.

~~(kk)~~ **(lll)** Amend subsection ~~7-2.4~~ **9-2.4** to read as follows: An approved elevated tank shall be an acceptable water supply source.

~~(ll)~~ **(mmm)** Amend section ~~8-1(a)~~ **10-1(1)** to read as follows: Notify the owner’s representative of the time and date testing will be performed.

~~(mm)~~ **(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.

~~(nn)~~ **(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.

~~(oo)~~ **(ppp)** Delete Chapter ~~9~~ **11** in its entirety.

~~(pp)~~ Delete Chapter ~~10~~ in its entirety and substitute “See the Indiana Fire Prevention Code (675 IAC 22).”.

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

~~(qq)~~ **(rrr)** Delete Chapter ~~11~~ **13** in its entirety.

~~(rr)~~ Table A-5-3.4 Large-Drop Sprinkler Data, Pressure, and Number of Design Sprinklers Required for Various Hazards for Large-Drop Sprinklers, located in Appendix A is adopted.

~~(ss)~~ Table A-5-3.5 ESFR Sprinkler Data located in Appendix A is adopted. (*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*)

SECTION 2. 675 IAC 13-1-9 IS AMENDED TO READ AS FOLLOWS:

675 IAC 13-1-9 NFPA 14

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. 9. (a) Standard for the Installation of Standpipe, **Private Hydrant**, and Hose Systems, NFPA 14, ~~1993~~, **2000**, published by National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, Massachusetts 02269-9101 is adopted by reference except as revised hereafter.

(b) The following documents referenced in NFPA 14 are not adopted, are not enforceable, and are referenced for information

purposes only:

- (1) NFPA 22, NFPA 24, NFPA 25, NFPA 51B, NFPA 1901, and NFPA 1963.
- (2) AWS A5.8.
- (3) (2) ASTM E380.

(c) Amend section 1-2 to read as follows: 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 standpipe systems based upon sound engineering principles, test data, and field experience. For alternate methods, materials, and design, see the General Administrative Rules (675 IAC 12-6-11).

(d) Delete the Exception in section 1-3 without substitution.

(e) Amend the following definitions in section 1-4 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 or 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. 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) Amend Table 2-2.1 by changing ANSI B36.10 to read as follows: ANSI B36.10M.

(g) Amend subsection 2-5.1 to read as follows: Types of hangers shall be in accordance with the requirements of this section.

EXCEPTION: Hangers certified by a design professional to include all of the following shall be acceptable:

- (1) Hangers are designed to support five (5) times the weight of the water-filled pipe plus two hundred fifty (250) pounds (one hundred fourteen (114) kg) at each point of piping support.
- (2) These points of support are adequate to support the standpipe system.
- (3) Hanger components shall be ferrous.

Detailed calculations shall be submitted, showing stresses developed both in hangers and piping and safety factors allowed, including lateral loads as required by the Indiana Building Code (675 IAC 13).

(h) Delete, in section 2-6, Exception No. 3 "accepted by the authority having jurisdiction".

(f) Add the following definition to section 1-4: 1-4.15.1 NFPA 13; Installation of sprinkler systems means (675 IAC 13-1-8).

(g) Amend subsection 2-5, Exception No. 3 to read as follows: A nonindicating valve, such as an underground gate valve with approved roadway box complete with T-wrench, approved by the authority having jurisdiction.

(h) Amend subsection 2-7.1.3 2-6.1.3 to read as follows: Where a fire-resistive assembly is penetrated by a cabinet, the fire resistance of the assembly shall be maintained.

(i) Delete subsection 2-6.2.1 without substitution.

(j) Amend subsection 2-7, Exception to read as follows: Where the local fire department uses fittings different from those specified, fittings compatible with the local fire department equipment shall be used.

(k) Amend section 2-8 subsection 2-8-2, Exception to read as follows: Hose connections shall have external threads. Hose connections shall be equipped with caps to protect hose threads. EXCEPTION: Where the local fire department uses fittings different from those specified, fittings compatible with local fire department equipment shall be used.

(l) Amend subsection 2-9.2, Exception to read as follows: Each fire department connection shall have at least two (2) two and

one-half (2½) inch (sixty-three and five-tenths (63.5) millimeters) internal threaded swivel fittings. Fire department connections shall be equipped with caps to protect against entry of debris into the system. EXCEPTION: Where the local fire department uses fittings different from those specified, fittings compatible with the local fire department equipment shall be used.

(h) **(m)** Delete subsection 3-1.1 in its entirety without substitution.

(i) **(m)** Amend subsection 3-1.3 to read as follows: Standpipe and hose systems not required by the Indiana Building Code (675 IAC 13) and not meeting the requirements of this standard shall be marked with a sign stating "FOR FIRE BRIGADE USE ONLY".

(j) **(n)** Delete the Exception to subsection 3-3.2 without substitution.

(k) **(o)** Delete Exception No. 1 and Exception No. 2 in subsection 3-3.3 without substitution.

(n) Delete subsection 3-1.3 without substitution.

(l) **(p)** Amend subsection 3-7.1 to read as follows: For automatic or semiautomatic systems, listed water flow alarms shall be provided.

(m) **(q)** Amend the second paragraph of subsection 4-2.1 to read as follows: Where a backflow prevention device of the reduced pressure type is required by the Indiana Plumbing Code (675 IAC 16), the check valve and shutoff shall not be omitted and shall be installed on the discharge side of the reduced pressure backflow device.

(n) **(r)** Amend the Exception to subsection 5-3.2(a) to read as follows: Exception: Hose connections shall be permitted to be located at main floor landings in exit stairways.

(o) **(s)** Amend subsection 5-3.2(f) to read as follows: (f) Where the most remote portion of a nonsprinklered floor or story exceeds one hundred fifty (150) feet (forty-five (45) meters) of travel distance from a required exit or the most remote portion of a sprinklered floor or story exceeds two hundred (200) feet (sixty-one (61) meters) of travel distance from a required exit, additional hose connections shall be provided in approved locations.

(p) **(t)** Delete the first ~~three (3)~~ **two (2)** sentences of section 5-7 and substitute to read as follows: Standpipe systems shall be designed so that the system demand can be supplied by both the attached water supply and fire department connections.
EXCEPTION: Manual standpipe systems shall be designed so that the system demand can be supplied by the fire department connections.

(q) **(r)** Delete ~~the~~ **Exception No. 1 and Exception No. 2** to section ~~5-7(a)~~ **5-7(1)** without substitution.

(r) **(s)** Amend the last sentence of the Exception to subsection 5-9.1.3.1 to read as follows: The flow rate required for the standpipe demand of a combined system in a building protected throughout by an automatic sprinkler system need not exceed one thousand (1,000) gpm (three thousand seven hundred eighty-five (3,785) L/min).

(s) **(t)** Delete subsection 5-9.1.3.3 in its entirety without substitution

(u) Delete the Exception to Subsection 5-10.2 without substitution.

(t) **(x)** Amend subsection 5-11.1 to read as follows: A permanently installed three (3) inch (seventy-five (75) millimeter) drain riser shall be provided adjacent to each standpipe equipped with pressure regulating devices to facilitate tests of each device. The riser shall be equipped with a three (3) inch (seventy-six (76) millimeter) by two and one-half (2½) inch (sixty-three and five-tenths (63.5) millimeter) tee with an internal threaded swivel fitting having NH standard threads with plug, located on at least every other floor.

(u) **(v)** Amend the Exception to subsection 5-11.1 to read as follows: Where the local fire department uses fittings different from those specified, fittings compatible with the local fire department equipment shall be used.

(v) **(w)** Delete the Exception to subsection 5-12.2 without substitution.

(x) Amend subsection 5-13.1 to read as follows: See local ordinance.

(y) Delete the Exception to 5-13.1 without substitution.

(z) Delete subsection 5-15.2 without substitution.

(z) (aa) Delete Chapter 6 and substitute the following: Plans and specifications shall be filed as required by the General Administrative Rules (675 IAC 12).

(aa) Amend subsection 7-4.3 to read as follows: For systems with two (2) or more zones in which portions of the second and higher zones cannot be supplied with the residual pressure required by section 5-7 by fire department pumpers through a fire department connection; another auxiliary means of supply shall be provided. This shall be in the form of high-level water storage with additional pumping equipment.

(bb) Amend subsection 7-1.2 (2) to read as follows: Automatic fire pumps connected to an approved water source in accordance with NFPA 20, Standard for the Installation of Stationary Pumps for Fire Protection (675 IAC 13-1-10).

(cc) Amend the last sentence of subsection 7-4.3 to read as follows: This means shall be in the form of high-level water storage with additional pumping equipment.

(bb) (dd) Amend subsection 8-2.1 to read as follows: Underground piping supplying the system shall be flushed in accordance with NFPA 13 (675 IAC 13-1-8).

(cc) (ee) Amend the last sentence of subsection 8-4.1 to read as follows: Underground pipe shall be tested in accordance with NFPA 13 (675 IAC 13-1-8).

(ff) Amend subsection 9-7 to read as follows: Each alarm and supervisory device provided shall be tested in accordance with NFPA 72, National Fire Alarm Code (675 IAC 22-2.2-17).

(dd) (gg) Amend the Contractor's Material and Test Certificate for Aboveground Piping Standpipe System NFPA 14 by:

(1) changing in the Procedure section "approving authorities" in two (2) places to read "authority having jurisdiction";

(+) (2) changing in the Plans section "Accepted By Approving Authority(s) (Names) Address" to read as follows: state building commissioner Project Number; and

(-) (3) deleting "For Approving Authorities" in the third line of "System Operating Test Witnessed By" section.

(ee) Delete in (hh) Amend the Contractors Material and Test Certificate for Underground Piping "Approving Authorities": by:

(1) changing in the Procedure section "approving authorities" in two (2) places to read "authority having jurisdiction"; and

(2) changing in the plans section "Accepted By Approving Authority(s) (Names) Address" to read as follows: state building commissioner Project Number.

(ii) Amend subsection 9-8 (2) to read as follows: A copy of NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems (675 IAC 22-2.2-5).

(ff) (jj) Delete Chapter 9 10 and substitute to read as follows: For buildings under construction, see the Indiana Fire Prevention Code (675 IAC 22).

(gg) (kk) Delete Chapter 10 11 in its entirety without substitution. (Fire Prevention and Building Safety Commission; 675 IAC 13-1-9; filed Sep 5, 1986, 9:22 a.m.: 10 IR 14; filed Aug 15, 1997, 8:54 a.m.: 21 IR 96)

SECTION 3. 675 IAC 13-1-10 IS AMENDED TO READ AS FOLLOWS:

675 IAC 13-1-10 NFPA 20

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. 10. (a) Standard for the Installation of ~~Centrifugal Fire~~ **Stationary Pumps for Fire Protection**, NFPA 20, ~~1996, 1999~~, published by National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, Massachusetts 02269-9101 is adopted by reference except as revised hereafter.

(b) The following documents referenced in NFPA 20 are not adopted, are not enforceable, and are for information purposes only:

- (1) NFPA 24, ~~NFPA 25, NFPA 51B, and NFPA 110. and NFPA 1963.~~
- (2) Hydraulic Institute Standards for Centrifugal, Rotary, and Reciprocating Pumps.
- (3) NEMA Standards.
- (4) SAE Standards, J-1349.
- (5) ANSI/IEEE C62.1, C62.11, C62.41.
- (6) ASTM-E.380.**

(c) Delete the last sentence of subsection 1-2.1 and substitute to read as follows: For alternate methods, materials, and design, see the General Administrative Rules (675 IAC 12-6-11).

(d) Delete subsection 1-2.2 in its entirety without substitution.

(e) Delete subsection 1-4.3 and substitute the following: Plans and specifications shall be filed as required by the General Administrative Rules (675 IAC 12-6).

(f) Delete subsection 1-5 without substitution.

(g) Change the last sentence of section 1-7 to read as follows: The purchaser shall furnish this data to the ~~building official~~ **authority having jurisdiction** when requested.

(h) Amend the following definitions in section 1-8 to read as follows:

APPROVED means, as to materials, equipment, and types of construction, accepted 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 or 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. Equipment or materials included in a list published by an organization engaged in product evaluation that maintains periodic inspection or 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.

(i) Add the following definitions to section 1-8 to read as follows:

NFPA 13, Installation of Sprinkler Systems means 675 IAC 13-1-8.

NFPA 70, National Electrical Code means the Indiana Electrical Code 675 IAC 17.

TESTING LABORATORY means an independent nationally recognized testing laboratory or other organization listed in the General Administrative Rules (675 IAC 12-6-11).

(j) Delete in section 1-8 the definition of Aquifer.

(k) Delete subsection 1-8.1 in its entirety without substitution.

(l) Delete subsection 2-1.1 in its entirety without substitution.

~~(m)~~ **(m)** Delete subsection 2-1.2 in its entirety without substitution.

~~(n)~~ **(n)** Amend subsection 2-2.3 to read as follows: Dual-drive pump units shall not be used.

~~(o)~~ **(o)** Delete, in section 2-3, the last sentence of the first paragraph.

(p) Amend Exception No. 2 to subsection 2-7.1.1 to read as follows: **In buildings protected with an automatic sprinkler system installed in accordance with NFPA 13 (675 IAC 13-1-8), the separation requirement may be reduced to 1-hour fire-rated construction.**

(q) Amend subsection 2-8.4 To read as follows: **Torch-cutting or welding in the pump house shall be permitted as a means of modifying or repairing pump house piping when it is performed in accordance with NFPA 51B (675 IAC 22-2.2-12).**

~~(r)~~ **(r)** Amend Exception No. 2 to subsection 2-9.9(a) to read as follows: Check valves and backflow prevention devices and assemblies shall be permitted where required by the water purveyor.

(s) Amend the last sentence of subsection 2-10.2 to read as follows: **All pump discharge pipe shall be hydrostatically tested in accordance with NFPA 13 (675 IAC 13-1-8).**

~~(t)~~ **(t)** Amend subsection 2-14.3.2 to read as follows: Hose valve(s) shall have threads that are compatible with the local fire department hose threads.

(u) Delete subsection 2-14.3.2, Exception without substitution.

~~(v)~~ **(v)** Delete subsection 2-21.4 without substitution.

~~(w)~~ **(w)** Delete subsection 2-22.1 and substitute to read as follows: The fire pump, driver, diesel fuel tank, and the fire pump controller shall resist lateral loads as required by the Building Code (675 IAC 13).

~~(x)~~ Delete the last sentence of subsection 4-1.1 without substitution.

~~(y)~~ **(s)** Amend subsection 4-1.2 by changing the second sentence to read as follows: **In all applications, the owner of the pump shall be supplied with data on the draw-down characteristics of the well and the pump performance.**

~~(z)~~ **(x)** Amend subsection 4-2.1.1 to read as follows: The water supply shall have the capacity to supply one hundred fifty percent (150%) of the system that it serves as the system design.

~~(aa)~~ **(y)** Amend subsection 4-2.1.2 by deleting “satisfactory” in two (2) places.

~~(ab)~~ **(z)** Amend the third sentence of subsection 4-2.7 to read as follows: The test shall be witnessed by a representative of the customer and contractor as required.

~~(ac)~~ **(aa)** Amend subsection 4-3.3.2 by deleting “suitable” and substituting “approved”.

~~(ad)~~ **(x)** **(bb)** Amend the first sentence of subsection 4-4.2 to read as follows: The driver shall be screened or enclosed and protected against tampering.

~~(ae)~~ **(y)** **(cc)** Amend the first and second sentences of subsection 4-5.1.3.1 to read as one (1) sentence as follows: Gear drives and flexible connecting shafts shall be of the vertical hollow-shaft type.

~~(af)~~ **(z)** Amend subsection 4-6.1.1 to read as follows: **When the installation is completed, an operating test shall be made in the presence of the customer and the pump manufacturer or its designated representative. Requirements in section 11-2 shall be followed insofar as they apply.**

~~(ag)~~ **(dd)** Amend subsection 7.5.4 by deleting from the exception “or where the authority having jurisdiction has required manual shutdown”.

~~(ah)~~ **(ee)** Delete section 7-7 without substitution.

~~(ai)~~ **(ff)** Amend subsection 7-8.1.1 by deleting “by the authority having jurisdiction”.

~~(dd)~~ **(gg)** Amend subsection 8-1.2 to read as follows: Spark-ignited internal combustion engines shall not be used. This restriction shall not be interpreted to exclude gas turbine engines as future pump drivers.

~~(ee)~~ **(hh)** Delete subsection 8-4.1 and substitute the following: Plans and specifications shall be filed as required by the General Administrative Rules (675 IAC 12).

~~(ff)~~ **(ii)** Amend the first sentence of subsection 8-4.5 to read as follows: Diesel fuel supply tanks shall be located aboveground in accordance with the Indiana Fire ~~Prevention~~ Code (675 IAC 22) and shall not be buried.

~~(gg)~~ Delete subsection 9-4.1.5 without substitution.

~~(hh)~~ **(jj)** Amend the exception to subsection 9-5.2.6 to read as follows: Automatic shutdown shall not be permitted where the pump constitutes the sole source of supply of a fire sprinkler or standpipe system.

~~(ii)~~ **(kk)** Delete subsection 9-6.7.4 without substitution.

~~(jj)~~ **(ll)** Amend the last sentence of subsection 9-6.13 to read as follows: Manual shutdown shall also be provided.

~~(kk)~~ **(mm)** Delete subsection 11-2.2 in its entirety without substitution.

~~(ll)~~ **(nn)** Delete subsection 11-3.2 without substitution.

~~(mm)~~ **(oo)** Delete section 11-5 without substitution.

~~(nn)~~ **(pp)** Delete Chapter 12 in its entirety without substitution. (*Fire Prevention and Building Safety Commission; 675 IAC 13-1-10; filed Sep 5, 1986, 9:22 a.m.: 10 IR 14; filed Apr 5, 1988, 3:05 p.m.: 11 IR 2868; filed Aug 15, 1997, 8:54 a.m.: 21 IR 100*)

SECTION 4. 675 IAC 13-1-25 IS AMENDED TO READ AS FOLLOWS:

675 IAC 13-1-25 NFPA 13R

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. 25. (a) Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and including Four Stories in Height, NFPA 13R, ~~1996~~, **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 22, NFPA 25, NFPA 101, NFPA 220, and NFPA 251 are not adopted; are not enforceable; and are for information purposes only.~~

~~(c)~~ **(b)** Delete the last paragraph of section 1-2 and substitute to read as follows: For alternate materials, methods, and design, see the General Administrative Rules (675 IAC 12-6-11).

~~(d)~~ **(c)** Amend the following definitions in section 1-3 to read as follows: APPROVED, as to materials, equipment, and types of construction, refers to 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 or 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.

DWELLING UNIT is any building or portion thereof that 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 less persons.

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.

LISTED. 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.

RESIDENTIAL OCCUPANCIES. Residential occupancies, as included in the scope of this standard, include the following:

- (1) Apartment buildings.
- (2) Lodging and rooming houses.
- (3) Board and care facilities.
- (4) Hotels, motels, and dormitories.

(e) Delete subsection 2-1.1 and substitute as follows: Plans and specifications shall be filed as required by the General Administrative Rules (675 IAC 12).

(f) Amend subsection 2-1.2.1 to read as follows: The installer shall perform all required acceptance tests (see 2-1.3), and complete the Contractor's Material and Test Certificate(s) (see Fig. 2-1.2.1). The certificate(s) shall be available to the authority having jurisdiction upon request.

(g) Delete subsection 2-1.2.2 in its entirety without substitution.

(h) Amend subsection 2-3.2 to read as follows: The following water supply sources are acceptable:

- (1) A connection to the water purveyors distribution system with or without a booster pump, as required.
- (2) An elevated tank.
- (3) An approved pressure tank.
- (4) A stored water source with an automatically operated pump, installed in accordance with NFPA 20, Standard for the Installation of Centrifugal Fire Pumps, 675 IAC 13-1-10.

(i) Amend the Contractor's Material and Test Certificate for aboveground piping as follows:

- (1) Delete, in the second paragraph of Procedure, "approving authorities" in two (2) places.
- (2) Delete the Plans category.

(j) Amend section 2-7 by adding "(675 IAC 22-2.2-5)" after the words "Protection Systems".

(k) Delete Chapter 3 in its entirety without substitution. (*Fire Prevention and Building Safety Commission; 675 IAC 13-1-25; filed Feb 21, 1990, 1:00 p.m.: 13 IR 1165; errata filed Aug 11, 1990, 5:00 p.m.: 13 IR 2140; filed Aug 15, 1997, 8:54 a.m.: 21 IR 102*)

SECTION 5. 675 IAC 13-2.3-102 IS AMENDED TO READ AS FOLLOWS:

675 IAC 13-2.3-102 Section 906.1; smoke and heat venting, when required

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. 102. Change section 906.1 as follows: (a) Add Exception 3 to read as follows: 3. Buildings equipped with an engineered mechanical smoke removal system and an automatic fire-extinguishing system throughout.

(b) Add an Exception 4 to read as follows: 4. Buildings using the design curves in ~~NFPA 231C (675 IAC 22-2.2-20)~~, **NFPA 13 (675 IAC 13-1-8)**, for the design of rack storage sprinkler systems in a building that is equipped with an engineered mechanical smoke removal system and an automatic fire-extinguishing system throughout.

(c) Add an Exception 5 to read as follows: 5. Buildings equipped with an early suppression fast-response sprinkler system.

(d) Add a paragraph at the end of the exceptions to read as follows: A fire department control panel for the engineered mechanical smoke removal system shall be located such that it is readily accessible to and usable by the servicing fire department. Prior to the design or installation of said panel, the servicing fire department shall be consulted on the location of the panel or the location shall be as required by local ordinance. (*Fire Prevention and Building Safety Commission; 675 IAC 13-2.3-102; filed Mar 31, 1998, 1:45*)

p.m.: 21 IR 2839)

SECTION 6. 675 IAC 13-2.3-103 IS AMENDED TO READ AS FOLLOWS:

675 IAC 13-2.3-103 Section 906.6.1; curtain boards, general

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. 103. Change section 906.6.1 as follows: (a) Add an Exception 1 to read as follows: EXCEPTION 1. Buildings equipped with an engineered mechanical smoke removal system and an automatic fire-extinguishing system throughout.

(b) Add an Exception 2 to read as follows: EXCEPTION 2. Buildings using the design curves in ~~NFPA 231C (675 IAC 22-2.2-20)~~, **NFPA 13 (675 IAC 13-1-8)**, for the design of rack storage sprinkler systems in buildings that are equipped with an engineered mechanical smoke removal system and an automatic fire-extinguishing system throughout. For high-piled combustible storage, see the Fire Code.

(c) Add an Exception 3 to read as follows: EXCEPTION 3. Buildings equipped with an early suppression fast-response sprinkler system.

(d) Add a paragraph at the end of the exceptions to read as follows: A fire department control panel for the engineered mechanical smoke removal system shall be located such that it is readily accessible to and usable by the servicing fire department. Prior to the design or installation of said panel, the servicing fire department shall be consulted on the location of the panel or the location shall be as required by local ordinance. (*Fire Prevention and Building Safety Commission; 675 IAC 13-2.3-103; filed Mar 31, 1998, 1:45 p.m.: 21 IR 2839*)

SECTION 7. 675 IAC 22-2.2-535 IS AMENDED TO READ AS FOLLOWS:

675 IAC 22-2.2-535 Uniform Fire Code Standard 81-1; high-piled general storage of combustibles in buildings

Authority: IC 22-13-2-2

Affected: IC 22-12-7; IC 22-13; IC 22-14; IC 36-8-17

Sec. 535. Delete Uniform Fire Code Standard 81-1 and substitute the following: UFC Standard 81-1 shall be ~~NFPA 231~~, as adopted at section 19 of this code: **NFPA 13 (675 IAC 13-1-8)**. (*Fire Prevention and Building Safety Commission; 675 IAC 22-2.2-535; filed Mar 31, 1998, 1:50 p.m.: 21 IR 2969; errata filed Oct 9, 1998, 2:57 p.m.: 22 IR 469*)

SECTION 8. 675 IAC 22-2.2-536 IS AMENDED TO READ AS FOLLOWS:

675 IAC 22-2.2-536 Uniform Fire Code Standard 81-2; high-piled storage of combustibles on racks in buildings

Authority: IC 22-13-2-2

Affected: IC 22-12-7; IC 22-13; IC 22-14; IC 36-8-17

Sec. 536. Delete Uniform Fire Code Standard 81-2 and substitute the following: UFC ~~Standard Standard~~ 81-2 shall be ~~NFPA 231C~~, as adopted at section 20 of this code: **NFPA 13 (675 IAC 13-1-8)**. (*Fire Prevention and Building Safety Commission; 675 IAC 22-2.2-536; filed Mar 31, 1998, 1:50 p.m.: 21 IR 2969; errata filed Oct 9, 1998, 2:57 p.m.: 22 IR 469*)

SECTION 9. THE FOLLOWING ARE REPEALED: 675 IAC 22-2.2-19; 675 IAC 22-2.2-20.

Notice of Public Hearing

Under IC 4-22-2-24, notice is hereby given that on June 5, 2001 at 10:00 a.m., at the Indiana Government Center-South, 402 West Washington Street, Conference Center Room B, Indianapolis; AND on August 7, 2001 at 10:00 a.m., at the Indiana Government Center-South, 402 West Washington Street, Conference Center Room B, Indianapolis, Indiana the Fire Prevention and Building Safety Commission will hold a public hearing on proposed amendments to the Indiana fire safety standards, the Indiana building code, and Indiana fire code. Copies of these rules are now on file at the Indiana Government Center-South, 402 West Washington Street, Room W246 and Legislative Services Agency, One North Capitol, Suite 325, Indianapolis, Indiana and are open for public

inspection.

Patrick Ralston
Secretary
Fire Prevention and Building Safety Commission