NFPA 72-2010 National Fire Alarm and Signaling Code

NFPA 59A-2001 Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG) (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 28-1-28 NFPA 72; national fire alarm and signaling code

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

Sec. 28. (a) That certain standard, being titled NFPA 72, National Fire Alarm and Signaling Code, 2010 edition, published by the National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, Massachusetts 02269-9101, be and the same is hereby adopted by reference as if fully set out in this section except as revised hereafter.

(b) 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

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

(d) Amend Section 1.5 by deleting the text and substituting "See 675 IAC 12-6-11.".

(e) Delete Section 1.7 in its entirety without substitution.

(f) Amend Section 2.2 as follows:

(1) In the reference to NFPA 10, delete "2010 edition" and insert "as adopted at 675 IAC 28-1-2".

(2) In the reference to NFPA 11, delete "2010 edition" and insert "as adopted at 675 IAC 28-1-3".

(3) In the reference to NFPA 13, delete "2010 edition" and insert "as adopted at 675 IAC 13-1-5".

(4) In the reference to NFPA 25, delete "2008 edition" and insert "as adopted at 675 IAC 28-1-12".

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

(g) Amend Section 2.3.1 as follows:

(1) In the reference to ANSI A17.1, Safety Code for Elevators and Escalators, delete "2004 edition" and insert "as adopted at 675 IAC 21".

(2) In the reference to ANSI B36.10M, Welded and Seamless Wrought Steel Pipe, delete "2004 edition" and insert "as adopted at 680 IAC 2 [675 IAC 30]".

(h) Delete Section 2.3.6 in its entirety without substitution.

(i) In Section 2.4, in the reference to NFPA 70, delete "2008 edition" and insert "as adopted at 675 IAC 17-1-8".

(j) Amend Chapter 3 as follows:

(k) Amend Section 3.1 by inserting "solely" after "apply" and deleting the last sentence.

(l) Amend Section 3.2 as follows:

(1) Amend Section 3.2.1 to delete the text and insert as follows: APPROVED means acceptance by the authority having jurisdiction by one (1) of the following methods:

(1) Investigation or tests conducted by national recognized authorities; or

(2) Investigation or tests conducted by national recognized technical or scientific organizations; or

(3) National accepted principles.

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

(2) Amend Section 3.2.2 to delete the text and insert 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) Amend Section 3.2.4 to delete the text and insert as follows: 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 inspections 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) Amend Section 3.2.5 to delete the text and insert as follows: LISTED means equipment or materials included in a list published by an organization engaged in a product evaluation, that maintains periodic inspections 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 Section 3.2.7 in its entirety without substitution.

(6) Add Section 3.2.8 to read as follows: STORY. STORY is that portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above. It is measured as the vertical distance from top to top of two successive tiers of beams or finished floor surfaces and, for the topmost story, from the top of the floor finish to the top of the ceiling joists or, where there is not a ceiling, to top of the roof rafters.

(7) Add Section 3.2.9 to read as follows: ACCESSIBLE. ACCESSIBLE means capable of being reached safely and quickly for operation, repair or inspection without requiring those whom ready access is requisite to climb over or remove obstacles, or to resort to the use of portable access equipment.

(8) Add Section 3.2.10 to read as follows: BUILDING CODE. BUILDING CODE means the Indiana Building Code (675 IAC 13) in effect in Indiana at the time of construction, remodeling, alteration, addition, or repair of the structure.

(9) Add Section 3.2.11 to read as follows: DIVISION OF FIRE AND BUILDING SAFETY. 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 10-19-2.

(10) Add Section 3.2.12 to read as follows: INDIANA FIRE CODE. INDIANA FIRE CODE the Indiana Fire Code (675 IAC 22) in effect in Indiana at the time of inspection by the inspection authority or, with respect to construction in accordance with 675 IAC 12-4-7.

(11) Add Section 3.2.13 to read as follows: INDIANA MECHANICAL CODE. 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.

(12) Add Section 3.2.14 to read as follows: NFPA 70, NATIONAL ELECTRICAL CODE. NFPA 70, NATIONAL ELECTRICAL CODE means the Indiana Electrical Code (675 IAC 17) in effect at the time of construction, remodeling, alteration, or addition of the structure.

(m) Amend Section 3.3 as follows:

(1) Amend Section 3.3.17 to read as follows: APARTMENT BUILDING. APARTMENT BUILDING means a building classified as an R-2 occupancy under the Indiana Building Code.

(2) Amend Section 3.3.54 to delete the text and insert to read as follows: DAY-CARE HOME. DAY-CARE HOME means a child care home as defined in IC 12-7-2-28.6.

(3) Add Section 3.3.58.5 to read as follows: DESIGN PROFESSIONAL. DESIGN PROFESSIONAL means an architect who is registered under IC 25-4 or a professional engineer who is registered under IC 25-31.

(4) Delete the text of Section 3.3.70 and insert to read as follows: DORMITORY. DORMITORY means a building classified as an R-2 under the Indiana Building Code.

(5) Delete the text Section 3.3.74 and insert to read as follows: DWELLING UNIT. DWELLING UNIT is any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking, and sanitation, as required by this code, for not more than one (1) family, or congregate resident for ten (10) or less persons.

(6) Delete Section 3.3.111 in its entirety without substitution.

(7) Delete Section 3.3.112 in its entirety without substitution.

(8) Amend Section 3.3.117 by deleting the text and inserting to read as follows: HOTEL. HOTEL means a building classified as an R-1 occupancy in accordance with the Building Code.

(9) Delete Section 3.3.118 in its entirety without substitution.

(10) Delete Section 3.3.133 without substitution.

(11) Delete Section 3.3.148 in its entirety without substitution.

(12) Amend Section 3.3.206 to read as follows: QUALIFIED. See "QUALIFIED PERSON".

(13) Add Section 3.3.206.5 to read as follows: QUALIFIED PERSON. QUALIFIED PERSON means a person who is a design professional or a person who has successfully completed a course of instruction related to the equipment being installed, serviced, or repaired, with such instruction having been provided by the manufacturer of the equipment or their authorized representative.

(14) Amend Section 3.3.226 by deleting the text and inserting to read as follows: RESIDENTIAL BOARD AND CARE OCCUPANCY. RESIDENTIAL BOARD AND CARE OCCUPANCY means a building classified as an I-1 occupancy under the Building Code.

(15) Amend Section 3.3.227 by deleting the text and inserting to read as follows: RESIDENTIAL OCCUPANCY. RESIDENTIAL OCCUPANCY means a building classified as an R-3 or R-4 occupancy under the Indiana Building Code.

(16) Delete Section 3.3.235 in its entirety without substitution.

(17) Delete Section 3.3.244 in its entirety without substitution.

(18) Delete Section 3.3.262 in its entirety without substitution.

(n) Delete the text of Section 10.4 in its entirety and insert as follows: 10.4 Design, installation, testing, and maintenance. 10.4.1 Fire alarm plans and specifications shall be designed as required by 675 IAC 12-6.

10.4.2 Plans and specifications shall be filed with the Plan Review Section of the Division of Fire and Building Safety in accordance with 675 IAC 12-6-7.

10.4.3 Installation personnel shall be qualified.

10.4.4 Personnel who perform inspections, testing, and maintenance shall be qualified.

10.4.5 Evidence of qualification shall be provided to the authority having jurisdiction upon request.

(o) Amend Section 10.15 to insert at the end of the exception "where approved by the authority having jurisdiction".

(p) Amend Section 10.16.3.1 by deleting "required".

(q) Delete Section 10.16.3.2 without substitution.

(r) Amend Section 10.17.3.3 by deleting "Unless prohibited by the authority having jurisdiction" and by deleting "supervising" and inserting "Supervising".

(s) Amend Section 10.18.1.2 by deleting the text and inserting as follows:
When requested by the authority having jurisdiction, the specifications, wiring diagrams, and floor plans that were submitted for state construction design release shall be provided to the authority having jurisdiction prior to inspection.

(t) Amend Section 10.18.1.3 by deleting the text and inserting as follows: Where required by local ordinance, prior to requesting a final inspection of the installation, including alterations to the system, the installing contractor shall provide a written statement to the fire department that the fire alarm system was installed in accordance with the rules of the commission and this code.

(u) Amend Section 10.18.1.4 by deleting the text and inserting as follows: Where required by local ordinance, the form in FIGURE 10.18.2.1.1 shall be completed as part of the written statement.
(v) Amend Section 10.18.1.5 by deleting the text and inserting as follows: Where required by local ordinance, each installing contractor shall complete their relevant portion of the form in FIGURE 10.18.2.1.1.
(w) Add Section 10.18.1.6 to read as follows: The following documents shall be provided to the owner:
(1) Owner's manual and manufacturer's published instructions for all equipment.
(2) Copy of all applicable construction design releases issued pursuant to 675 IAC 12-6.
(3) Copy of the as-built plans and specifications.
(4) Record copy of site-specific software, if applicable.
(5) Operating instructions.
(x) Delete Section 10.18.2.1.2.8 without substitution.
(y) Delete Section 10.18.2.1.1 without substitution.
(z) Delete Section 10.18.2.2 without substitution.
(aa) Delete Section 10.18.2.4 without substitution.
(bb) Amend Section 10.18.3.2 as follows: After "required" and before "reported", insert "by local ordinance".
(cc) Amend Section 10.19.3 to read as follows: Impaired fire alarm systems shall be in compliance with the Indiana Fire Code.
(dd) Delete Section 14.1.3 without substitution.
(ee) Amend Section 14.1.4 to read as follows: The requirements of this chapter apply to all new systems. For existing systems, see 675 IAC 12-4-9, 675 IAC 12-4-11, and 675 IAC 12-4-12.
(ff) Add Section 14.1.5 by deleting the text and inserting as follows: Inspection, testing, and maintenance shall be performed by qualified persons.
(gg) Amend Section 14.2.1.2.1 by deleting the text and inserting as follows: Impairments shall comply with the Indiana Fire Code.
(hh) Delete Section 14.2.2.2 in its entirety without substitution.
(ii) Delete Section 14.2.2.4 in its entirety without substitution.
(jj) Delete Section 14.2.8 in its entirety without substitution.
(kk) Amend Section 14.3.1 to delete all the text after "Table 14.3.1".
(ll) Amend Section 14.3.2 to delete "if" and substitute "where".
(mm) Amend Section 14.4.2.1 to read as follows: When requested by the authority having jurisdiction, the specifications, wiring diagrams, and floor plans that were submitted for state construction design release shall be provided to the authority having jurisdiction prior to inspection of the central station facility.
(nn) Amend Section 14.4.5 to delete all the text after "Table 14.4.5".
(oo) Amend Section 14.4.5.1 to delete "if" and substitute "when".
(pp) Amend Section 14.4.5.3.2 by inserting, after the first sentence, "All smoke detectors in the system shall be sensitivity tested within the same calendar year.".
(qq) Amend Section 14.4.5.3.3 by deleting "(or 4 percent obscuration light gray smoke, if not marked)" without substitution.(rr) Amend Section 14.4.5.4, after "by", by deleting "the applicable NFPA standards" and substituting "this standard".(ss) Delete Section 14.4.7 in its entirety without substitution.
(tt) Delete Section 14.4.8 in its entirety without substitution.
(uu) Amend Section 14.4.12 by deleting the text and inserting as follows: Where the installation of an in-building emergency radio communication system is required by local ordinance, the system shall be tested as required in such local ordinance.
(vv) Amend Section 14.6.1 by deleting "approved by the authority having jurisdiction" without substitution.

(ww) Amend Section 17.1.4 to read as follows: The requirements of single and multiple-station alarms shall be determined in accordance with the Indiana Building Code, the Indiana Fire Code, IC 22-11-18, and Chapter 14 of this code.

(xx) Amend Section 17.1.5 to read as follows: The material in this chapter shall be applied by trained persons.

(yy) Amend Section 17.1.6 to read as follows: The interconnection of initiating devices with control equipment configurations and power supplies, or with output systems responding to external actuation shall comply with the applicable rules of the commission, including, without limitation, NFPA 70.

(zz) Delete Section 17.3 in its entirety without substitution.

(aaa) Amend Section 17.4.6 by deleting "other NFPA codes and standards or as required by other governing laws, codes, or standards" and substituting "this standard".

(bbb) Amend Section 17.4.8 by deleting "in a location acceptable to the authority having jurisdiction" without substitution.(ccc) Amend Section 17.5.3.1 to delete "Where required by laws, codes, or standards, and unless".

(ddd) Amend Section 17.5.3.1.4 to delete "meeting the requirements of NFPA 99A, Standard for the Installation of Air-Conditioning and Ventilating Systems," and insert as follows: in accordance with the Indiana Mechanical Code" before ",".

(eee) Amend Section 17.5.3.2 by deleting "codes, standards, or laws" and inserting "the rules of the commission".

(fff) Delete Section 17.5.3.3 in its entirety without substitution.

(ggg) Delete Sections 17.6.1.1, 17.6.1.2 and 17.6.1.3 without substitution.

(hhh) Delete the text of Section 17.6.2.1 and insert as follows: Heat Sensing Fire Detectors shall be designed and installed as required by this code, the Indiana Building Code and the Indiana Fire Code.

(iii) Delete Section 17.6.3.8 without substitution.

(jjj) Delete Section 17.7.1.1 without substitution.

(kkk) Delete Section 17.7.1.2 without substitution.

(lll) Delete Section 17.7.1.3 without substitution.

(mmm) Delete Section 17.7.1.4 without substitution.

(nnn) Amend Section 17.7.1.6 to read as follows: Smoke detectors shall be installed as required by this standard, the Indiana Building Code and the Indiana Fire Code.

(ooo) Amend Section 17.7.1.10 by deleting the second sentence without substitution.

(ppp) Delete Section 17.7.3.2.3.3 in its entirety without substitution.

(qqq) Amend Section 17.7.5.3.1 to delete "on the supply side of air handling systems as required by NFPA 90A, Standard for the Installation of Air-Conditioning and Ventilating Systems, and 5.14.4.2.1." and insert the following: in air handling systems in accordance with the Indiana Mechanical Code.

(rrr) Amend Section 17.7.5.4.2.1 by deleting "other NFPA Standards" and inserting "the rules of the commission".

(sss) Amend Section 17.7.5.4.2.2 by deleting "other NFPA Standards" and inserting "the rules of the commission".

(ttt) Amend Section 17.7.5.5.3 by deleting "NFPA 90A, Standard for the Installation of Air-Conditioning and Ventilating Systems" and inserting "the Indiana Mechanical Code".

(uuu) Amend Section 17.10.2.4 by deleting "an engineering" and inserting "a design professional's".

(vvv) Amend Section 17.11.1.1 to read as follows: Such detectors shall be installed in all areas required under the Indiana Building Code or the Indiana Fire Code.

(www) Amend Section 18.1.1 by deleting, after "by", "the enforcing authority having jurisdiction or other governing laws, codes or standards or other parts of this Code" and inserting "this standard".

(xxx) Delete Section 18.1.5 in its entirety without substitution.
(yyy) Delete Section 18.4.3.2 without substitution.
(zzz) Amend Section 18.4.3.4 by deleting "if" and inserting "where".
(aaaa) Delete the text of Section 18.4.4.2 and insert the following: Where permitted by applicable rules of the commission the requirements for audible signaling shall be permitted to be reduced or eliminated when visible signaling is provided in accordance with Section 18.5.
(bbbb) Amend Section 18.4.5.3 as follows:
(1) Delete "Effective January 1, 2014,".
(2) Delete "where" and insert "Where".
(cccc) Amend Section 18.4.7.3 to delete "Where required by the enforcing authority, governing laws, codes, or standards, or other parts of this Code,".
(dddd) Amend Section 18.4.7.4 to delete "Where required by the enforcing authority, governing laws, codes, or standards, or other parts of this Code,".
(eeee) Delete Section 18.4.10.3 without substitution.
(ffff) Amend Section 18.5.2.5 to read as follows: Lights used to signal occupants to see information or instructions shall be clear, nominal white or other color as approved by the code official.
(gggg) Amend Section 18.5.4.3.6 by deleting "or at the mounting height determined using the performance-based alternative of 18.5.4.5" without substitution.
(hhhh) Delete Section 18.5.4.5 without substitution.
(iiii) Delete Section 18.6 in its entirety without substitution.
(jjjj) Delete Section 18.8.2.1 without substitution.
(kkkk) Amend Section 18.9.3.1 by deleting "unless otherwise permitted by the authority having jurisdiction" without substitution.
(llll) Amend Section 18.11 to read as follows: Annunciators, information display systems, and controls for portions of the fire alarm system provided for use by the fire service shall be designed, arranged and located after consultation with the responding fire department.
(mmmm) Amend Section 21.2.11 by deleting item #3 without substitution.
(nnnn) Amend Section 21.3.3 by deleting "Unless otherwise required by the authority having jurisdiction".
(oooo) Amend Section 21.7.3 by deleting after the word "with", "applicable NFPA standards" and inserting "this standard".(pppp) Amend Section 21.8.2 by deleting the exception without substitution.
(qqqq) Amend Section 21.9.2 by deleting "other laws, codes, and governing standards" and inserting "the Indiana Fire Code".(rrrr) Amend Section 21.9.3 by deleting all of the text after "condition" without substitution.
(ssss) Amend Section 21.10.1 by deleting "other laws, codes, and governing standards" and inserting "local ordinance".(tttt) Delete Section 23.2.3 in its entirety without substitution.
(uuuu) Delete Section 23.3.1 in its entirety without substitution.
(vvvv) Delete Section 23.3.2 in its entirety without substitution.
(wwww) Amend Section 23.4.3.1 by deleting all of the text after "performance" and inserting "this code".
(xxxx) Amend Section 23.4.3.2, in item #4, by deleting "mission" without substitution.
(yyyy) Amend Section 23.8.1.2.1 by deleting "if" and inserting "where".
(zzzz) Amend Section 23.8.1.3.1 by deleting "if" and inserting "where".
(aaaaa) Amend Section 23.8.1.3.1.1, item #1, by deleting "trained personnel" and inserting "qualified persons".
(bbbbb) Delete Section 23.8.2.10 without substitution.
(ccccc) Delete Section 23.8.3 in its entirety without substitution.
(ddddd) Delete Section 23.8.4.3.1.1 in its entirety without substitution.
(eeeee) Delete Section 23.8.4.6 without substitution.

(fffff) Amend Section 23.8.5.4.3 by deleting condition number one and renumbering two and three as one and two.

(ggggg) Amend Section 23.8.5.5.1 by deleting "other governing laws, codes, or standards" and inserting "the rules of the commission".

(hhhhh) Amend Section 23.8.5.6.1 by deleting "other governing laws, codes, or standards" and inserting "the rules of the commission".

(iiiii) Amend Section 23.8.5.7.1 by deleting "other governing laws, codes, or standards" and inserting "the rules of the commission".

(jjjjj) Amend Section 23.8.5.7.2, after 10.17.1.2, to delete ", and with other applicable NFPA standards".

(kkkkk) Amend Section 23.8.5.10.3 by deleting "other governing laws, codes, or standards" and inserting "the rules of the commission".

(llllll) Amend Section 23.8.5.11.2, delete "other applicable NFPA standards" and substitute "applicable rules of the commission".

(mmmmm) Amend Section 23.10.2, in the second sentence, by deleting all of the text after the second use of the word "provided" and inserting "to the authority having jurisdiction, upon request".

(nnnnn) Amend Section 23.12.2 by deleting "or by other approved means".

(ooooo) Amend Section 23.13.3 by deleting "NFPA standards" and substituting "rules of the commission".

(ppppp) Amend Section 23.15.2 by deleting "in accordance with NFPA 601, Standard for Security Services in Fire Loss Prevention".

(qqqqq) Amend Section 23.18.4.2, the exception, by deleting "Until the expiration date for this exception of June 30, 2013, the" and inserting "The".

(rrrrr) Add Section 23.19 to read as follows: 23.19 McCulloh Systems. ©2002 NFPA* 23.19.1 Transmitters.

(A) A coded alarm signal from a transmitter shall consist of not less than three complete rounds of the number or code transmitted.

(B) A coded fire alarm box shall produce not less than three signal impulses for each revolution of the coded signal wheel or another approved device.

(C) Circuit-adjusting means for emergency operating shall be permitted to be either automatic or be provided through manual operation upon receipt of a trouble signal.

(D) Equipment shall be provided at the supervising or subsidiary station on all circuits extending from the supervising or subsidiary station that is utilized for McCulloh systems for performing the following:

(1) Tests on current on each circuit under nontransmitting conditions.

(2) Tests on current on each side of the circuit with the receiving equipment conditioned for an open circuit.

23.19.2 Transmission Channels.

(A) Circuits between the protected premises and the supervising or subsidiary station that are essential to the actuation or operation of devices that initiate a signal indicative of fire shall be arranged so that the occurrence of a single break or single ground fault does not prevent transmission of an alarm.

(B) Circuits wholly within the supervising or subsidiary station shall not be required to be arranged in accordance with 23.19.2(A).

(C) The carrier system portion of circuits shall not be required to be arranged in accordance with 23.19.2(A).

(D) The occurrence of a single break or a single ground fault on any circuit shall not of itself cause a false signal that is able to be interpreted as an alarm of fire. If such a single fault prevents the functioning of any circuit, its occurrence shall be indicated automatically at the supervising station by a trouble signal that compels attention and that is distinguishable from signals other than those indicative of an abnormal condition of supervised parts of a fire suppression system(s).

(E) The circuits and devices shall be arranged to receive and record a signal identifiable as to location of origin, and provisions shall be made for identifying transmission to the public fire service communications center.

(F) Multipoint transmission channels between the protected premises and the supervising or subsidiary station and within the protected premises, consisting of one or more coded transmitters and an associated system unit(s), shall meet the requirements of either 23.19.2(G) or 23.19.2(H).

(G) If end-to-end metallic continuity is present, signals shall be received from other points under any one of the following transmission channel fault conditions at one point on the line:

(1) Open.

(2) Ground.

(3) Wire-to wire short.

(4) Open and ground.

(H) If end-to-end metallic continuity is not present, the nonmetallic portion of transmission channels shall meet all of the following requirements:

(1) Two nonmetallic channels or one channel plus a means for immediate transfer to a standby channel shall be provided for each transmission channel, with a maximum of eight transmission channels being associated with each standby channel, or shall be furnished over one channel, provided that service is limited to one plant.

(2) The two nonmetallic channels (or one channel with standby arrangement) for each transmission channel shall be provided by one of the following means, shown in descending order of preference:

(a) Over separate facilities and separate routes.

(b) Over separate facilities in the same route.

(c) Over the same facilities in the same route.

(3) Failure of a nonmetallic channel or any portion thereof shall be indicated immediately and automatically in the supervising station.

(4) Signals shall be received from other points under any one of the following fault conditions at one point on the metallic portion of the transmission channel:

(a) Open.

(b) Ground.

(c) Wire-to-wire.

23.19.3 Loading Capacity of McCulloh Circuits.

23.19.3.1 The number of transmitters connected to any transmission channel shall be limited to eliminate interference. 23.19.3.2 The total number of code wheels or other approved devices connected to a single transmission channel shall not exceed 250.

23.19.3.3 Alarm signal transmission channels shall be reserved exclusively for fire alarm signal transmitting service unless the transmission channels meet the requirements of 23.19.3.6.

23.19.3.4 The number of waterflow switches permitted to be connected to actuate a single transmitter shall not exceed five switches.

23.19.3.5 The number of supervisory switches permitted to be connected to actuate a single transmitter shall not exceed 20 switches.

23.19.3.6 Combined alarm and supervisory transmission channels shall comply with the following:

(1) If both sprinkler supervisory signals and fire or waterflow alarm signals are transmitted over the same transmission channel, provision shall be made to obtain either alarm signal precedence or continuous repetition of the alarm signal to prevent the loss of any alarm signal.

(2) Other signal transmitters (e.g., burglar, industrial processes) on an alarm transmission channel shall not exceed five.

23.19.3.7 If signals from manual fire alarm boxes and waterflow alarm transmitters within a building are transmitted over the same transmission channel and are operating at the same time, there shall be no interference with the fire box signals. Provision of the shunt noninterfering method of operation shall be permitted for this performance.

23.19.3.8 One alarm transmission channel shall serve not more than 25 plants.

(A) A plant shall be permitted to consist of one or more buildings under the same ownership, and the circuit arrangement shall be such that an alarm signal cannot be received from more than one transmitter at a time within a plant.

(B) If such noninterference is not provided, each building shall be a plant.

23.19.3.9 One sprinkler supervisory transmission channel circuit shall serve not more than 25 plants. A plant shall be permitted to consist of one or more buildings under the same ownership.

23.19.3.10 Connections to a guard supervisory transmission channel or to a combination manual fire alarm and guard transmission channel shall be limited so that not more than 60 scheduled guard report signals are transmitted in any 1-hour period. Patrol scheduling shall be such as to eliminate interference between guard report signals.

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(sssss) Add Section 23.20 to read as follows:

23.20 Directly Connected Noncoded Systems. ©2002 NFPA *

23.20.1 Circuits. Circuits for transmission of alarm signals between the fire alarm control unit or the transmitter in the protected premises and the supervising station shall be arranged so as to comply with the following provisions:

(1) These circuits shall be arranged so that the occurrence of a single break or single ground fault does not prevent the transmission of an alarm signal. Circuits complying with this paragraph shall be automatically self-adjusting in the event of either a single break or a single ground fault and shall be automatically self-restoring in the event that the break or fault is corrected.

(2) These circuits shall be arranged so that they are isolated from ground (except for reference ground detection) and so that a single ground fault does not prevent the transmission of an alarm signal. Circuits complying with this paragraph shall be provided with a ground reference circuit so as to detect and indicate automatically the existence of a single ground fault.

(3) A multiple ground-fault condition that would prevent alarm operation shall be indicated by an alarm or by a trouble signal.

(4) Circuits for transmission of supervisory signals shall be separate from alarm circuits.

(5) The occurrence of a single break or a single ground fault on any circuit shall not of itself cause a false signal that is able to be interpreted as an alarm of fire.

(6) The requirements of this section shall not apply to the following circuits:

(a) Circuits wholly within the supervising station.

(b) Circuits wholly within the protected premises extending from one or more automatic fire detectors or other noncoded initiating devices other than waterflow devices to a transmitter or control unit.

(c) Power supply leads wholly within the building or buildings protected.

23.20.2 Loading Capacity of Circuits.

(A) The number of initiating devices connected to any signaling circuit and the number of plants that shall be permitted to be served by a signal circuit shall be determined by the authority having jurisdiction and shall not exceed the limitations specified in this subsection.

(B) A plant shall be permitted to consist of one or more buildings under the same ownership.

(C) A single circuit shall not serve more than one plant.

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(ttttt) Add Section 23.21 to read as follows:

23.21 Private Microwave Radio Systems. ©2002 NFPA *

23.21.1 If a private microwave radio is used as the transmission channel and communications channel, supervised transmitting and receiving equipment shall be provided at supervising, subsidiary, and repeater stations.

23.21.2 If more than five protected buildings or premises or 50 initiating devices or initiating device circuits are being serviced by a private radio carrier, the supervising, subsidiary, and repeater station radio facilities shall meet all of the following criteria:

(1) Dual supervised transmitters, arranged for automatic switching from one to the other in case of trouble, shall be installed.

(2) If the transmitters are located where someone is always on duty, switchboard facilities shall be permitted to be manually operated, provided the switching is able to be carried out within 30 seconds.

(3) If the transmitters are located where no one is continuously on duty, the circuit extending between the supervising station and the transmitters shall be a supervised circuit.

(4) Transmitters shall be operated on a time ratio of 2:1 within each 24 hours.

(5) Dual receivers shall be installed with a means for selecting a usable output from one of the two receivers.

(6) The failure of one receiver shall in no way interfere with the operation of the other receiver, and failure of either receiver shall be annunciated.

23.21.3 Means shall be provided at the supervising station for the supervision and control of supervising, subsidiary, and repeater station radio transmitting and receiving equipment. If the radio equipment is remote from the supervising station, this shall be accomplished via a supervised circuit.

(A) The following conditions shall be supervised at the supervising station:

(1) Transmitter in use (radiating).

(2) Failure of ac power supplying the radio equipment.

(3) Receiver malfunction.

(4) Indication of automatic switchover.

(B) It shall be possible to independently deactivate either transmitter from the supervising station.

* All of this section is reprinted by permission of the National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02269-9101.

(uuuuu) Delete Chapter 24 Emergency Communications Systems (ECS) in its entirety without substitution.

(vvvvv) Delete Section 26.2.4 in its entirety without substitution.

(wwwww) Delete Section 26.3.3 in its entirety without substitution.

(xxxxx) Delete Section 26.3.4.1 without substitution.

(yyyyy) Delete Section 26.3.4.2 without substitution.

(zzzzz) Delete Section 26.3.4.8 without substitution.

(aaaaaa) Amend Section 26.4.5.6.3, item #3, by deleting "required" and inserting "requested".

(bbbbbb) Amend Section 26.4.5.6.4, item #3, by deleting "required" and inserting "requested".

(cccccc) Amend Section 26.3.5.1 by deleting "construction, fire protection, restricted access, emergency lighting, and power facilities requirements of the latest edition of ANSI/UL 827, Standard for Safety Central-Station Alarm Services" and substituting "the rules of the Commission".

(dddddd) Amend Section 26.3.5.2 by deleting "construction, fire protection, restricted access, emergency lighting, and power facilities requirements of the latest edition of ANSI/UL 827, Standard for Safety Central-Station Alarm Services" and substituting "the rules of the Commission".

(eeeeee) Amend Section 26.3.7.1.2, in item (2) to delete "Except where prohibited by the authority having jurisdiction," and in item (4) to read as follows: Provide immediate notice to the subscriber and the authority having jurisdiction.

(ffffff) Amend Section 26.3.7.2.1, (3) to read as follows: Report all delinquencies to the subscriber and the authority having jurisdiction as quickly as practicable.
(gggggg) Amend Section 26.3.7.3, to insert a new item (3) to read as follows: Notify the fire department as quickly as practicable.
(hhhhhh) Amend Section 26.3.7.3, to renumber item (3) to item (4) and renumber item (4) to item (5), and amend (5) to read as follows: When service has been restored, provide notice to the subscriber and the authority having jurisdiction as to the nature of the signal, the time of occurrence, and the restoration of service when equipment has been out of service for 8 hours or more.
(iiiiii) Amend Section 26.3.7.4, (3) to read as follows: Provide notice to the subscriber and the authority having jurisdiction as to the nature of the interruption, the time of occurrence, and the restoration of service, when the interruption is more than 8 hours.
(jjjjjj) Amend Section 26.3.8.3 to read as follows: The central station shall furnish reports of signals received to the authority having jurisdiction immediately upon request.
(kkkkkk) Amend Section 26.4.4.1.3 by deleting the exception without substitution.
(llllll) Amend Section 26.4.4.1.4 by inserting "approved" before "private-mode" and delete all text after "appliances".
(mmmmmm) Amend Section 26.4.4.6.3 by inserting "and" before "operate", delete the "," after "signals", and delete "and take such action as shall be required by the authority having jurisdiction" without substitution.
(nnnnnn) Amend Section 26.4.5.1.2 by deleting the word "or" after the word "owner" and substituting "and".
(oooooo) Amend Section 26.4.5.2.1 by deleting "designated by the authority having jurisdiction" without substitution.
(pppppp) Amend Section 26.4.5.2.2 by deleting "or" and substituting "and".
(qqqqqq) Amend Section 26.4.5.3 by deleting "or other locations accepted by the authority having jurisdiction".
(rrrrrr) Amend Section 26.4.5.4 by deleting "shall be accepted by the authority having jurisdiction and" without substitution.(ssssss) Amend Section 26.4.5.6.1 (1) to read as follows: Immediately notify the fire department and the emergency response team.
(tttttt) Amend Section 26.4.5.6.2, (1) by deleting "or other means accepted by the authority having jurisdiction" without substitution.
(uuuuuu) Amend Section 26.4.6.3 to read as follows: The central station shall furnish reports of signals received to the authority having jurisdiction immediately upon request.
(vvvvvv) Delete Section 26.5 in its entirety without substitution.
(wwwwww) Delete Section 26.6.2.2 without substitution.
(xxxxxx) Delete Section 26.6.3.1.1 without substitution.
(yyyyyy) Delete Section 26.6.3.1.4.1 without substitution.
(zzzzzz) Amend Section 26.6.3.2.1.4(A) to delete the text and insert to read as follows: (A) A system employing a DACT shall employ two (2) transmission channels. The DACT shall employ one of the following transmission means for the primary channel and a different transmission technology for the secondary channel from the following:

(1) A telephone line (POTS).
(2) A cellular telephone connection.
(3) A one-way private radio alarm system.
(4) A two-way RF multiplex system.
(5) An internet alarm communicator.

(aaaaaaa) Amend Section 26.6.3.2.1.4(B) to delete Exception No. 2 without substitution.
(bbbbbbb) Delete Chapter 27 in its entirety, and insert to read as follows: For public emergency alarm reporting systems, see local ordinance.

(ccccccc) Delete Chapter 29 in its entirety and substitute the following: Single and Multiple-Station Alarms. Single and multiple station alarms shall be installed in occupancies in Class 1 structures as required in the Indiana Building Code, the Indiana Fire Code, and IC 22-11-18, and in accordance with Chapters 4 through 10 of this standard.

(Fire Prevention and Building Safety Commission; 675 IAC 28-1-28; filed Aug 23, 2006, 4:03 p.m.: 20060906-IR-675050104FRA; readopted filed Aug 8, 2012, 8:08 a.m.: 20120905-IR-675120260RFA; filed Feb 21, 2014, 4:15 p.m.: 20140319-IR-675120522FRA; errata filed Nov 7, 2014, 8:26 a.m.: 20141203-IR-675140454ACA; readopted filed Jul 3, 2018, 2:22 p.m.: 20180801-IR-675180204RFA)