

**Article 21.3 - SAFETY CODES FOR ELEVATORS, ESCALATORS, MANLIFTS AND HOISTS:
Elevator Safety**

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675 IAC 21-3-1 Adoption by reference

Authority: IC 22-13-2-13

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

Sec. 1. That certain document, being titled as ANSI/ASME A17.1, 2004, Safety Code for Elevators and Escalators, published by the American Society of Mechanical Engineers, Three Park Avenue, New York, New York 10016 is hereby adopted by reference and made a part of this rule as if fully set out herein, save and except those additions, deletions, and amendments as are made in section 2 of this rule. (*Fire Prevention and Building Safety Commission; 675 IAC 21-3-1; filed Aug 30, 1985, 11:52 a.m.: 9 IR 41, eff Oct 1, 1985; filed Mar 6, 1986, 3:00 p.m.: 9 IR 1658; errata, 9 IR 2063; filed Sep 27, 1989, 4:30 p.m.: 13 IR 288; errata filed Nov 15, 1989, 5:00 p.m.: 13 IR 675; readopted filed Sep 11, 2001, 2:49 p.m.: 25 IR 530; filed Dec 3, 2002, 3:05 p.m.: 26 IR 1087; filed Nov 16, 2006, 4:04 p.m.: 20061213-IR-675050050FRA*)

675 IAC 21-3-2 Amendments to adopted code

Authority: IC 22-13-2-13

Affected: IC 10-19; IC 22-12-1-22; IC 22-12-2-10; IC 22-13-2-10; IC 22-14; IC 22-15; IC 36-7

Sec. 2. (a) Explanatory material, in the form of notes, that is not part of a table, figure, or graph, is not:

(1) a part of this standard; and

(2) enforceable as part of this rule.

(b) Delete subsection 1.1.3 in its entirety and substitute the following: 1.1.3 Application of Code

(a) Except as provided in (b) and (c) below, this Code applies to new installations only.

(b) Part 1 and Section 5.10, Section 8.6, Section 8.7, Section 8.8, Section 8.9, Section 8.10, and Section 8.11 apply to new and existing installations.

(c) Section 8.1 applies to any installation for which an installation permit was received by the Department on or after January 3, 2003.

(c) Delete subsection 1.1.4, Effective Date, without substitution.

(d) Delete Section 1.2, Purpose and Exceptions, in its entirety and substitute the following: 1.2 Keys All keys associated with the equipment described in Section 1.1 shall be placed in a heavy metal enclosure. All such keys shall be clearly identified. The enclosure shall be conspicuously located and identified by a sign stating "FOR EMERGENCY USE ONLY". All such enclosures shall be equipped with a seven (7) pin cylindrical lock opened by a common key SI-2. Only responding fire department officers, the authority having jurisdiction, and the elevator contractor shall be permitted to retain keys for such enclosures.

(e) Amend Section 1.3, Definitions, to read as follows:

(1) Add a definition to read as follows: NFPA 70 means the Indiana Electrical Code (675 IAC 17).

(2) Add a definition to read as follows: ANSI A117.1 means the Indiana Building Code, Chapter 11, Part 1 (675 IAC 13).

(3) Add a definition to read as follows: Department means the Indiana Department of Homeland Security created in accordance with IC 10-19.

(4) Add a definition to read as follows: Division means the Division of Fire and Building Safety of the Department.

(5) Change the definition of APPROVED to read as follows: APPROVED means, as to materials, equipment, products, and construction, acceptance by the authority having jurisdiction by one (1) of the following methods:

(A) Investigation or tests conducted by recognized authorities.

(B) Investigation or tests conducted by technical or scientific organizations.

(C) Accepted principles.

The investigation, tests, or principles shall establish that the materials, equipment, products, and construction are safe for their intended purposes.

(6) Change the definition of AUTHORITY HAVING JURISDICTION to read as follows: AUTHORITY HAVING JURISDICTION means the office of the state building commissioner Division or officer of a local unit of government empowered by law to administer and enforce the rules of the commission as set forth at IC 22-13-2-10.

(7) Change the definition of BUILDING CODE to read as follows: BUILDING CODE means the Indiana Building Code, 675 IAC 13, for Class 1 structures except townhouses or the Indiana Residential Code, 675 IAC 14, for Class 2 structures and townhouses in effect at the time of the construction, addition, or alteration of the building or structure.

(8) Change the definition of CERTIFIED to read as follows: CERTIFIED means "approved".

(9) Change the definition of ELEVATOR to read as follows: ELEVATOR means a regulated lifting device as defined in IC 22-12-1-22.

(10) Change the definition of LABELED/MARKED to read 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 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.

(11) Change the definition of LISTED/CERTIFIED to read as follows: 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.

(12) Change the definition of REGULATORY AUTHORITY to read as follows: REGULATORY AUTHORITY: See AUTHORITY HAVING JURISDICTION.

(f) Deleted [*sic.*, *Delete*] Section 2.2.2.5 in its entirety without substitution.

(g) Amend Section 3.4.5(b) to insert, after the word "assemblies", ", any hydraulic jack".

(h) Delete Sections 5-3, 5-4, 5.8, and 5-9 without substitution.

(i) Amend Section 6.1.1.1, Protection Required, to read as follows: Floor openings for escalators shall be protected against the passage of flame, heat, and/or smoke in accordance with the Indiana Building Code, 675 IAC 13.

(j) Amend subsection 6.1.2.1, Protection Required, as follows:

(1) Delete "of NFPA 101, whichever is applicable (see Chapter 9)".

(2) Delete "adequate" and insert "required".

(k) Amend Section 6.2.1.1, Protection Required, to read as follows: Where a moving walk penetrates a building floor, the opening shall be protected against the passage of flame, heat, and/or smoke in accordance with the provisions of the Indiana Building Code, 675 IAC 13.

(l) Amend subsection 6.2.2.1, Protection Required, as follows:

(1) Delete "of NFPA 101, whichever is applicable (see Chapter 9)".

(2) Delete "adequate" and insert "required".

(m) Amend subsection 7.1.1.1 by deleting the second sentence.

(n) Amend subsection 7.1.8.2 as follows: Requirement 2.8.2.3 does not apply. Sprinklers shall be permitted in the hoistway when conforming to NFPA 13 as adopted by the commission at the time of installation of the elevator. All sprinkler risers and returns shall be located outside the hoistway.

(o) Delete Sections 7.4, 7.5, and 7.6 without substitution.

(p) Amend subsection 8.6.1.4.2, Record Availability, as follows: Add "and the AUTHORITY HAVING JURISDICTION" to the end of the section.

(q) Amend the first sentence of Section 8.6.1.5.1 to read as follows: For installations for which installation permit applications were received by the Department on or after January 3, 2003, a data plate that indicates the applicable rule of the commission in effect at the time of installation and any alteration (see 8.7.1.8) shall be provided.

(r) Amend Section 8.6.1.6.3(a) to read as follows: For installations for which installation permit applications were received by the Department on or after January 3, 2003, up-to-date wiring diagrams detailing circuits of all electrical protective devices (see 2.26.2) and critical operating circuits (see 2.26.3), where such diagrams are available from the original equipment manufacturer, shall be available in the machine room.

- (s) Amend Section 8.6.3.11 as follows:
 - (1) Add at the end of the first sentence ", and such replacements shall be subjected to the relief valve setting testing described in Section 8.11.3.2.1".
 - (2) Add a second sentence as follows: Documentation of such testing shall be maintained with the maintenance records on site for review by the Division.
- (t) Amend Section 8.6.5.4 to insert the following at the end of the sentence, "contained in the manufacturer's specifications".
 - (u) Amend Section 8.6.5.6 to add the following at the end of the section: Such replacements shall be subjected to the relief valve setting testing described in Section 8.11.3.2.1 and Section 8.11.3.2.4. Documentation of such testing shall be maintained with the maintenance records on site for review by the Division.
 - (v) Amend Section 8.7.2.11.5 to read as follows:
 - (a) Except as provided in (b) below, where a device that restricts the opening of hoistway doors or car doors is altered or installed, the device shall conform to 2.12.5.
 - (b) Platform guards shall comply with 2.15.9 to the greater of:
 - (1) the leveling or truck zone, plus 75 mm (3 in.); or
 - (2) the extent the existing pit shall permit.
 - (w) Amend Section 8.7.2.20 to read as follows:
 - (a) The requirements of 2.19 shall be conformed to where a device for protection against ascending car overspeed and unintended car movement is altered or installed.
 - (b) The requirements of 2.15.9 shall be conformed to where a device for protection against ascending car overspeed and unintended car movement is altered or installed to the greater of:
 - (1) the leveling or truck zone, plus 75 mm (3 in.); or
 - (2) the extent the existing pit shall permit.
 - (x) Amend Section 8.7.5.7 to delete "the entire installation" and substitute "only the work contained in the alteration".
 - (y) Amend Section 8.7.7.2 in the first sentence to delete the word "elevator" and insert the words "material lift".
 - (z) Amend subsection 8.10.1.1.1 to read as follows: A licensed inspector must conduct the acceptance inspection. A licensed inspector employed by the enforcement authority may conduct the acceptance inspection. If the enforcement authority chooses not to make this inspection, a third party licensed inspector shall make the acceptance inspection in accordance with the following:
 - (1) This third party licensed inspector shall sign an attestation for each test that reads, "I hereby attest under penalty for perjury that:
 - (A) all of the tests required by 8.10.2, 8.10.3, 8.10.4, or 8.10.5 have been completed in my presence by persons qualified to perform such services; and
 - (B) the regulated lifting device conforms to all applicable building and equipment codes in effect at the time of installation and all applicable building and equipment codes effective as applicable to and for each alteration."
 - (2) The third party licensed inspector that performs the acceptance inspection shall not be an employee of the elevator contractor that installed or altered the regulated lifting device or that is performing the required tests.
 - (aa) Delete Section 8.10.1.1.3 in its entirety without substitution.
 - (bb) Delete Section 8.10.5.2 in its entirety without substitution.
 - (cc) Delete Section 8.11.1.1 in its entirety without substitution.
 - (dd) Amend Section 8.11.1.1.2(a) to read as follows: A qualified inspector shall attest to the Category 1, Category 3, and Category 5 Periodic Test Requirements. This qualified inspector shall sign an attestation for each test that reads, "I hereby attest under penalty for perjury that:
 - (A) all of the required tests have been completed by persons qualified to perform such services; and
 - (B) the regulated lifting device conforms to all applicable building and equipment codes in effect at the time of installation and all applicable building and equipment codes effective as applicable to and for each alteration."
 - (ee) Amend Section 8.11.1.1.2(b) to read as follows: The owner or the owner's authorized agent shall have all of the tests required by 8.11.2, 8.11.3, 8.11.4, and 8.11.5 made by persons qualified to perform such service. For the Category 1, Category 3, and Category 5 Test Requirements, the owner or the owner's authorized agent shall have these tests attested to by a qualified inspector in the manner specified in 8.11.1.1.2(a).

(ff) Amend Section 8.11.1.3 to read as follows: The frequency of periodic inspections shall be established by the authority having jurisdiction and the frequency of periodic tests shall be as established in the Indiana Elevator Safety Code (675 IAC 21).

(gg) Delete Section 8.11.2.1, Periodic Inspection Requirements, in its entirety without substitution.

(hh) Delete Section 8.11.3.1, Periodic Inspection Requirements, in its entirety without substitution.

(ii) Amend Section 8.11.3.2.1 to read as follows: Relief Valve Setting and System Pressure Test. The relief valve setting shall be tested to determine that it will bypass the full output of the pump before the pressure exceeds 125% of the working pressure for elevators installed before January 3, 2003, and 150% of the working pressure for elevators that were installed after January 3, 2003, and that the system will withstand this pressure. It shall be sealed if the relief valve setting is altered or if the seal is broken.

(jj) Delete Section 8.11.4.1 in its entirety without substitution.

(kk) Delete Section 8.11.5.2 in its entirety without substitution.

(ll) Delete Section 8.11.5.13.1 in its entirety without substitution.

(mm) In Section 9, the following definitions are applicable:

(1) Except as specified in subdivision (2), "latest edition" means the edition that is in effect on November 1, 2006.

(2) For those codes that are adopted in this article, "latest edition" means the edition that has been adopted into this article.

(nn) Delete the following appendices without substitution:

(1) Appendix D.

(2) Appendix E.

(3) Appendix H.

(4) Appendix J.

(5) Appendix K.

(6) Appendix M.

(7) Appendix O.

(oo) Appendix N is adopted and amended as follows: In Table N1, delete without substitution, both columns under Periodic Inspections.

(pp) The following appendices are adopted:

(1) Appendix A.

(2) Appendix B.

(3) Appendix C.

(4) Appendix F.

(5) Appendix G.

(6) Appendix I.

(7) Appendix P.

(qq) Delete Appendix L and insert the following: ASME A17.1-2004

NONMANDATORY APPENDIX L

INDEX OF ALTERATION REQUIREMENTS FOR ELECTRIC ELEVATORS, HYDRAULIC ELEVATORS, ESCALATORS, AND MOVING WALKS

Item	Electric Elevators	Hydraulic Elevators	Escalators and Moving Walks	Permit required
Access doors and openings	8.7.2.7.3	8.7.2.7.3	8.7.6.1.14, 8.7.6.2.14	yes
Access switch and unlocking devices	8.7.2.11.4	8.7.3.11		yes
Addition of automatic transfer device (DW. & Maternal [<i>sic.</i>] lifts)	8.7.7.2	8.7.7.2		yes
Addition of auxiliary rope-fastening devices	8.7.2.21.3			yes
Addition of elevator to existing hoistway	8.7.2.1.2	8.7.2.1.2		yes
Addition of rope equalizers	8.7.2.21.2	8.7.3.25.2		yes
Anti-creep leveling device		8.7.3.31.3		yes
Ascending car overspeed and unintended movement	8.7.2.20			yes

Auxiliary power lowering operation		8.7.3.31.9		yes
Car and counterweight buffers and bumpers	8.7.2.23	8.7.3.27		yes
Car door or gate	8.7.2.14	8.7.3.13		yes
Car enclosure	8.7.2.14, 8.7.2.27.7	8.7.3.13		yes
Car frame and platform [<i>sic.</i>]	8.7.2.15.1	8.7.3.14		yes
Car leveling or truck zoning devices	8.7.2.27.2	8.7.3.31.2		yes
Car and counterweight safeties	8.7.2.18	8.7.3.15		yes
Carrying of passengers on freight elevators	8.7.2.16.3	8.7.3.19		yes
Change in class of loading	8.7.2.16.2	8.7.3.18		yes
Change in location of hydraulic jack		8.7.3.23.5		yes
Change in power supply	8.7.2.27.3	8.7.3.31.4		yes
Change in ropes	8.7.2.21.1	8.7.3.25.1		yes
Change in type of motion control	8.7.2.27.5	8.7.3.31.6		yes
Change in type of operation control	8.7.2.27.6	8.7.3.31.7		yes
Change in type of service	8.7.2.16.1	8.7.3.17		yes
Complates			8.7.6.1.8, 8.7.6.2.8	yes
Construction at bottom of hoistway	8.7.2.1.4	8.7.2.1.4		yes
Construction at top of hoistway	8.7.2.1.3	8.7.2.1.3		yes
Construction requirements (escalators and moving walks)			8.7.6.1.5, 8.7.6.2.5	yes
Control of smoke and hot gases	8.7.2.1.5	8.7.2.1.5		yes
Controller	8.7.2.27.4	8.7.3.31.5		yes
Counterweights	8.7.2.22	8.7.3.26		yes
Counterweight, location and guarding of	8.7.2.3	8.7.3.3		yes
Cylinder		8.7.3.23.3		yes
Decrease in rated speed	8.7.2.17.3	8.7.3.22.3		yes
Door reopening device	8.7.2.13	8.7.2.13		yes
Driving machine and sheaves	8.7.2.25.1	8.7.3.23	8.7.6.1.12, 8.7.6.2.12	yes
Driving machine, change in location of	8.7.2.25.2			yes
Dumbwaiters without automatic transfer devices	8.7.7.1	8.7.7.1		yes
Electrical equipment, wiring, pipes, ducts in HW. & M.R.	8.7.2.8	8.7.3.8		yes
Emergency operations and signaling devices	8.7.2.28	8.7.3.31.8		yes
Entrance and egress escalator and moving walk			8.7.6.1.15	yes
Entrance, horizontal slide type	8.7.2.10.2	8.7.2.10.2		yes
Entrance, swing type	8.7.2.10.4	8.7.2.10.4		yes
Entrance, vertical slide type	8.7.2.10.3	8.7.2.10.3		yes
Entrance, general requirement, emergency door	8.7.2.10.1	8.7.3.10		yes
General requirements, escalators and moving walks			8.7.6.1.1, 8.7.6.2.1	yes
Guide rails, supports, and fastenings	8.7.2.24	8.7.3.28		yes
Hand elevators		8.7.4.3		yes
Handrails (escalators and moving walks)			8.7.6.1.6, 8.7.6.2.6	yes
Headroom, machine room	8.7.2.7.4	8.7.2.7.4		yes
Hoistway enclosure walls	8.7.2.1.1	8.7.3.1		yes
Horizontal car and counterweight clearances	8.7.2.5	8.7.3.5		yes
Illumination in car	8.7.2.14	8.7.3.13		yes
In-car stop switch		8.7.3.31.10		yes

Inclined elevators	8.7.5.1	8.7.5.1		yes
Increase or decrease in deadweight of car	8.7.2.15.2	8.7.3.21		yes
Increase in rated load	8.7.2.16.4	8.7.3.20		yes
Increase in rated speed	8.7.2.17.2	8.7.3.22.2		yes
Increase or decrease in travel	8.7.2.17.1	8.7.3.22.1		yes
Increase in working pressure		8.7.3.23.4		yes
Interlocks	8.7.2.11.1	8.7.3.11		yes
Jack, hydraulic		8.7.3.23.1		yes
Lighting, access, and electrical work (esc. & moving walk)			8.7.6.1.14, 8.7.6.2.14	yes
Lighting of machine room	8.7.2.7.6	8.7.3.7		yes
Machine room and machinery spaces, enclosures [sic.]	8.7.2.7.1	8.7.3.7		yes
Machinery and sheave beams, supports and foundations	8.7.2.9	8.7.3.9		yes
Material lift with automatic transfer device	8.7.7.3	8.7.7.3		yes
Means of access to machine room or machinery space	8.7.2.7.2	8.7.2.7.2		yes
Mechanical lock and electric contact	8.7.2.11.2	8.7.3.11		yes
Operating and safety devices			8.7.6.1.13, 8.7.6.2.13	yes
Parking device	8.7.2.11.3	8.7.3.11		yes
Pit	8.7.2.2	8.7.3.2		yes
Plunger		8.7.3.23.2		yes
Plunger gripper		8.7.3.23.7		yes
Power operation of hoistway door	8.7.2.12	8.7.3.12		yes
Protection of floor openings			8.7.6.1.3, 8.7.6.2.3	yes
Protection of space below hoistway	8.7.2.6	8.7.3.6		yes
Protection of truss and machinery spaces against fire			8.7.6.1.4, 8.7.6.2.4	yes
Rack and pinion	8.7.4.1			yes
Rated load and speed			8.7.6.1.11, 8.7.6.2.11	yes
Relocation of escalator			8.7.6.1.2	yes
Relocation of hydraulic machine (power unit)		8.7.3.23.6		yes
Relocation of moving walk			8.7.6.2.2	yes
Restricted opening of doors	8.7.2.11.5	8.7.2.11.5		yes
Roof top elevators	8.7.5.6	8.7.5.6		yes
Screw column elevators	8.7.4.2			yes
Sidewalk elevators	8.7.5.5	8.7.5.5		yes
Signaling device	8.7.2.28	8.7.3.31.8		yes
Special purpose elevators	8.7.5.7			yes
Speed governors and governor ropes	8.7.2.19	8.7.3.16		yes
Step system			8.7.6.1.7	yes
Supply piping and fittings		8.7.3.24		yes
Tank		8.7.3.29		yes
Terminal stopping device	8.7.2.26	8.7.3.30		yes
Top of car operating device	8.7.2.27.1	8.7.3.31.1		yes
Track system			8.7.6.1.10, 8.7.6.2.10	yes
Treadway system			8.7.6.2.7	yes
Trusses and girders			8.7.6.1.9, 8.7.6.2.9	yes

Valves, pressure piping, and fittings		8.7.3.24	yes
Ventilation of machine room or machinery spaces	8.7.2.7.7	8.7.2.7.7	yes
Vertical car and counterweight clearances and runbys	8.7.2.4	8.7.3.4	yes
Window and skylight in machine room	8.7.2.7.5	8.7.2.7.5	yes

(Fire Prevention and Building Safety Commission; 675 IAC 21-3-2; filed Aug 30, 1985, 11:52 a.m.: 9 IR 41, eff Oct 1, 1985; filed Nov 14, 1986, 9:22 a.m.: 10 IR 873, eff Jan 1, 1987; filed Sep 27, 1989, 4:30 p.m.: 13 IR 288; filed Feb 23, 1995, 11:00 a.m.: 18 IR 1832; readopted filed Sep 11, 2001, 2:49 p.m.: 25 IR 530; filed Dec 3, 2002, 3:05 p.m.: 26 IR 1087; filed Nov 16, 2006, 4:04 p.m.: 20061213-IR-675050050FRA)