

INDUSTRY, LABOR AND HUMAN RELATIONS

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Ind 4

Chapter Ind 4

ELEVATOR CODE

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Note: Chapter Ind 4 as it existed on January 31, 1983 was repealed and a new chapter Ind 4 was created effective February 1, 1983.

PURPOSE AND SCOPE

Ind 4.01 Purpose. The purpose of this chapter is to protect the health, safety and welfare of the public and employes by establishing

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minimum standards for the design, construction, installation, operation, inspection, testing, maintenance, alteration and repair of machines and mechanical devices installed in all public buildings and places of employment.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

Ind 4.02 Scope. (1) **SPECIFIED EQUIPMENT.** This chapter shall apply to the following equipment installed in public buildings and places of employment:

- (a) Elevators;
- (b) Power dumbwaiters;
- (c) Escalators;
- (d) Moving walks;
- (e) Stage and orchestra lifts;
- (f) Material lifts and dumbwaiters with automatic transfer devices;
- (g) Special purpose personnel elevators;
- (h) Lifts for the physically disabled.

(2) **EXEMPTED EQUIPMENT.** This chapter shall not apply to the following equipment:

- (a) Conveyors complying with ANSI B20.1;
- (b) Tiering or piling machines used to move material to and from storage, and located and operated entirely within one story;
- (c) Equipment for feeding or positioning materials at machine tools, printing presses and similar types of equipment;
- (d) Hoists for raising or lowering materials and which are provided with unguided hooks, slings and similar means for attachment to the materials;
- (e) Skip or furnace hoists;
- (f) Wharf ramps;
- (g) Amusement devices, except equipment specified in sub. (1);
- (h) Stage curtain hoists;
- (i) Lift bridges;
- (j) Railroad car lifts or dumpers;
- (k) Mechanical lifts serving only the floor level on which the lift is located and used only for the transfer of material or equipment;

(l) Mechanized parking garage equipment and automotive hoists used only for maintenance or repair of motor vehicles;

(m) Personnel hoists and belt manlifts covered by chs. Ind 1000-2000, Wis. Adm. Code.

Note: Conveyors, personnel hoists and manlifts located in the private sector are covered by the Occupational Health and Safety Act. In the public sector this equipment is covered by chs. Ind 1000-2000, Wis. Adm. Code.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

INSTALLATIONS, ENFORCEMENT AND PETITION FOR MODIFICATION

Ind 4.03 Installations and alterations. (1) **NEW INSTALLATIONS.** Unless otherwise provided in this chapter, all new installations shall conform to the requirements of this chapter.

(2) **EXISTING INSTALLATIONS.** (a) *Applicable code requirements.* All existing installations shall conform to the applicable sections in this chapter and rules in effect on the contract date of the initial installation.

(b) *Maintenance.* All existing installations of equipment under the scope of this chapter shall comply with s. Ind 4.52.

(3) **PROHIBITED INSTALLATIONS.** (a) *New and existing installations.* 1. Belt or chain driven machines. Belt or chain driven machines shall not be used for any passenger elevator installation, except oil hydraulic elevators.

2. Friction gearing or clutch mechanism. Friction gearing or a clutch mechanism shall not be used to connect a driving-machine drum or sheave to the main driving gear of any elevator.

3. Continuous pressure operation. Continuous pressure button operation from the landings shall not be used for passenger elevators.

4. Drum type installations. Drum type freight elevator installations equipped with a mechanical brake shall not have hoistway limit switches, car door or gate electric contacts, hoistway landing door or gate electric contacts or any combination thereof.

5. Power attachments on hand-power elevators. Power attachments, such as worm reduction units, rope clutch or rope grip devices, belts to improvised rope wheels, or any similar device, shall not be installed on any hand elevator unless all requirements for power elevators are complied with.

(b) *New installations.* 1. Counterbalance elevators. Elevator cars shall not counterbalance each other.

2. Hand cable controls. Hand cable control power operated elevators and dumbwaiters are prohibited.

(4) **ALTERATIONS, REPAIRS AND REPLACEMENTS.** All alterations, repairs and replacements of parts shall comply with the applicable sections of this chapter.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

Ind 4.04 Petition for modification. The department shall consider and may grant a variance to an administrative rule upon receipt of a fee and a completed petition for modification form from the owner, provided an equivalent degree of safety is established in the petition for

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modification which meets the intent of the rule being modified. The department may impose specific conditions in a petition for modification to promote the protection of the health, safety and welfare of the employees or the public. Violations of those conditions under which the petition for modification is granted constitutes a violation of these rules.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

Ind 4.05 Enforcement. This chapter shall be used by the department, municipality and insurance inspectors certified by the department. The department shall have the responsibility for interpreting the rules, including those in the incorporated ANSI/ASME A17.1 code, and for the approval of equipment and material.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

PLAN APPROVALS AND INSPECTIONS

Ind 4.06 Plan examination and approval. (1) **PLAN SUBMITTAL.** Plans and specifications for all new installations and the following alterations shall be submitted to the department or municipality for examination and approval:

- (a) Increase in rated load or speed;
- (b) Increase in dead weight of car by 10% or more;
- (c) Increase or decrease in travel;
- (d) Change in classification from freight to passenger service;
- (e) Addition of hoistway doors or gates; and
- (f) Relocation of machine room.

(2) **INFORMATION REQUIRED ON PLANS.** At least 3 sets of plans, including specifications, shall be submitted by the manufacturer's representative or the distributor who furnishes the equipment. The plans shall include the following:

(a) A plan of car, hoistway and machine room showing all clearances, including all inside car dimensions specified in s. Ind 4.61 (4);

(b) A section through hoistway, pit and car showing all applicable dimensions. All landings shall be clearly shown, indicating types of hoistway doors or gates used;

(c) Working clearances around machine, controller and disconnecting means showing dimensions to adjacent or opposite walls and equipment, or both.

(d) The size and weight per foot of guiderails and details of their support, including reinforcement where required.

(3) **APPLICATION FOR INSTALLATION OR REMODELING.** Prior to commencing work, at least 2 completed copies of the department application form shall be submitted to the department for all new installations, alterations listed in sub. (1) (a) to (f) and the following alterations.

- (a) Change in type of operation or control;

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(m) Personnel hoists and belt manlifts covered by chs. Ind 1000-2000.

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History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

Ind 4.04 Petition for variance. The department shall consider and may grant a variance to an administrative rule upon receipt of a fee and a completed petition for variance form from the owner, provided an equivalent degree of safety is established in the petition for variance which meets the intent of the rule being petitioned. The department may

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impose specific conditions in a petition for variance to promote the protection of the health, safety and welfare of the employes or the public. Violations of those conditions under which the petition variance is granted constitutes a violation of these rules.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83; am. Register, November, 1984, No. 347, eff. 12-1-84.

Ind 4.05 Enforcement. This chapter shall be used by the department, municipality and insurance inspectors certified by the department. The department shall have the responsibility for interpreting the rules, including those in the incorporated ANSI/ASME A17.1 code, and for the approval of equipment and material.

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(b) A section through hoistway, pit and car showing all applicable dimensions. All landings shall be clearly shown, indicating types of hoistway doors or gates used;

(c) Working clearances around machine, controller and disconnecting means showing dimensions to adjacent or opposite walls and equipment, or both.

(d) The size and weight per foot of guiderails and details of their support, including reinforcement where required.

(3) **APPLICATION FOR INSTALLATION OR REMODELING.** Prior to commencing work, at least 2 completed copies of the department application form shall be submitted to the department for all new installations, alterations listed in sub. (1) (a) to (f) and the following alterations.

- (a) Change in type of operation or control;

- (b) Addition of phase I emergency recall or phase II emergency in-car operation specified in [ANSI/ASME] A17.1 211.3;
- (c) Change in size or type of suspension ropes;
- (d) Replacement, change in type, or addition of a car or counter-weight safety or governor;
- (e) Replacement of hoistway doors;
- (f) Addition of hoistway-door locking devices or car door or gate electric contacts;
- (g) Addition of top-of-car operating devices;
- (h) Addition of hoistway-door, car-door or gate operating devices;
- (i) Addition of car-leveling or truck-zoning devices;
- (j) Change in size or type of guiderails;
- (k) Replacement of an existing driving machine by a new driving machine;
- (l) Replacement of an existing controller by a new controller.

Note: See Appendix for an example of the application for installation or remodeling form (SB-22).

(4) APPROVAL OF PLANS AND APPLICATION. (a) *Conditional approval.* If, upon examination, the department or municipality determines that the plans and application for installation or remodeling substantially conform to the provisions of this code, a conditional approval, in writing, shall be granted. All non-code-complying conditions stated in the conditional approval shall be corrected before or during construction. A conditional approval issued by the department or municipality shall not be construed as an assumption of any responsibility for the design or construction of the equipment.

(b) *Denial of approval.* If the department or municipality determines that the plans or the application do not substantially conform to the provisions of this chapter, the application for conditional approval shall be denied, in writing.

(c) *Revocation of approval.* The department or municipality may revoke any approval, issued under the provisions of this chapter, for any false statements or misrepresentation of facts on which the approval was based.

(d) *Commencing work.* On-site fabrication or installation shall not commence before the plans and application are approved.

(5) OWNER'S RESPONSIBILITY. The submission of plans for approval or application form for installation or remodeling, or both, as required by subs. (1) and (3), shall be the responsibility of the building owner when the manufacturer, manufacturer's representative or distributor does not submit the plans, specifications and application for approval.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

Ind 4.07 Tests and inspections. (1) NEW INSTALLATIONS. New installations shall be tested and inspected by an authorized representative of the department or municipality to determine whether or not the instal-

lations conform to the conditionally approved plans and the provisions of this chapter. The installations shall not be placed in service until authorized by the department or municipality.

(a) *Notification for inspection.* The department shall be notified at least 10 days prior to the time the new installation is complete and ready for inspection.

(b) *Test and inspection.* A representative of the company installing the equipment shall be present during the tests and inspections specified in sub. (1).

(c) *Registration numbers.* All new equipment, as specified in s. Ind 4.02 (1), shall be assigned a registration number by the department or municipality. The registration number shall be located as follows:

1. Elevators: on the car crosshead or locations readily visible;
2. Dumbwaiters: in or on the car structure;
3. Escalators, moving walks: in the machine room at locations visible from the access opening;
4. Other equipment: at locations readily visible.

(2) **EXISTING INSTALLATIONS.** Every installation of equipment specified in s. Ind 4.02 (1) shall be inspected at least once every 12 months, except inclined wheelchair lifts and stairway chairlifts shall be inspected at least once every 3 years.

(3) **REINSPECTION.** Any equipment found to be in noncompliance will be reinspected as determined by the department or municipality to obtain compliance with the provisions of this chapter.

(4) **MAJOR ALTERATIONS.** Every major alteration specified in ANSI/ASME A17.1 1200.1a and s. Ind 4.53, shall be inspected as determined by the department or municipality.

(5) **COMPLIANCE DATE.** Every item which is out of compliance with this chapter listed on the inspection report shall be corrected on or before the compliance date stated on the report.

Note: See Appendix for examples of inspection forms and of abbreviated fee schedule.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

CERTIFICATE OF OPERATION

Ind 4.08 Certificate of operation. If the department, after inspection, determines that the installation conforms with the provisions of this chapter, a certificate for operation shall be issued by the department.

(1) **EXPIRATION.** Certificates for operation shall be effective from the date of issuance until 60 days after the next scheduled periodic inspection.

(2) **REVOCATION.** The department may revoke the certificate for operation if the equipment is found to be in noncompliance with the applicable safety standard. Upon revocation of the certificate for operation, the department shall notify the owner, in writing, of the noncomplying

items and afford him or her the opportunity for a hearing within 30 days from the date of revocation.

Note: See Appendix for example of certificate for operation form.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

CERTIFICATION OF INSPECTORS

Ind 4.09 Certification of inspectors. A person employed by the department, a municipality or an insurance company, may be certified by the department as an inspector, under the scope of this chapter, upon submittal of job qualifications on completed form SB-88 and successful passage of a written examination given by the department.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

Ind 4.10 Plan approvals by certified inspectors. All plan approvals shall be performed by certified department or municipality inspectors.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

Ind 4.11 Inspections by certified inspectors. All inspections required by this chapter shall be performed by certified inspectors.

(1) **INSPECTION REPORT.** All certified inspectors shall file an inspection report with the department, on a form approved by the department, within 14 days after the inspection. The report shall identify items of noncompliance.

(2) **COMPLIANCE WITH ORDERS.** If a certified inspector is unable to obtain compliance with this chapter, the inspector shall notify the department. If it becomes necessary for the department to conduct inspections, a fee in accordance with s. Ind 69.06 will be charged for each inspection.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

ADOPTION OF STANDARDS

Ind 4.20 Adoption of standards by reference. (1) **CONSENT TO INCORPORATE.** (a) Pursuant to s. 227.025, Stats., the Attorney General and the Revisor of Statutes have consented to the incorporation by reference of the American National Standard Safety Code for Elevators and Escalators, ANSI/ASME A17.1-1981, subject to those changes, additions or omissions specified in s. Ind 4.21.

(b) The American National Standard Safety Code for Elevators and Escalators, ANSI/ASME A17.1-1981, subject to the changes, additions or omissions specified in ss. Ind 4.22 through 4.74 is hereby incorporated by reference into ch. Ind 4.

(2) **INTERIM SUPPLEMENTS.** Interim supplements to the ANSI/ASME A17.1-1981 shall have no effect in the state, until such time as this section is correspondingly revised to reflect those changes.

(3) **AVAILABILITY OF STANDARDS.** Copies of the ANSI/ASME A17.1-1981 can be obtained from the American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, N.Y. 10017.

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(4) **FILING OF CODES.** Copies of the standards in reference are on file in the offices of the department, the secretary of state, and the revisor of statutes.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

**CHANGES, ADDITIONS OR OMISSIONS
TO ANSI/ASME A17.1-1981**

Ind 4.21 Changes, additions or omissions to ANSI/ASME A17.1-1981. Changes, additions or omissions to ANSI/ASME A17.1-1981 are specified in ss. Ind 4.22 through 4.74, and are rules of the department and are not requirements of the ANSI/ASME A17.1-1981.

Note: The referenced A17.1 section or subsection, located in brackets, will follow the Ind designation and precede the text of the rule. Example Ind 4.24 [A17.1 section 100].

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

Ind 4.22 [A17.1 Section 1 and Section 2] Introduction. ANSI Section 1 - Scope and Section 2 - Purpose and Exceptions do not apply in Wisconsin.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

Ind 4.23 [A17.1 Section 3] Definitions. These are department definitions in addition to the definitions in ANSI Section 3:

(1) "Approved" means acceptable to the department of industry, labor and human relations.

(2) "Capacity, contract load or rated load" means the approved safe live load specified on application and plans submitted for approval.

(3) "Department" means the department of industry, labor and human relations.

(4) "Existing installations" means equipment that has been completed or for which the contract was let before the effective date of any applicable rule change.

(5) "Fire-resistive rating" means a rating as defined in s. Ind 51.01 (50).

(6) "Municipality" means a city employing elevator inspectors certified by the department and exercising legal jurisdiction over elevator installations covered by this chapter.

(7) "New installations" means equipment for which the contract has been let on or after the effective date of any applicable rule change.

History: Cr. Register, January, 1983, No. 325, eff. 2-1-83.

**HOISTWAYS, HOISTWAY ENCLOSURES AND RELATED
CONSTRUCTION FOR ELECTRIC ELEVATORS**

Ind 4.24 [A17.1 Section 100] Construction of hoistways and hoistway enclosures. (1) [A17.1 100.1a Exception (4)] **FIRE-RESISTIVE CONSTRUCTION REQUIRED.** This is a department exception in addition to A17.1 100.1a Exception (4):

Where access is provided to moving elevators, the protection shall be not less than 7 feet in height.

Register, January, 1983, No. 325