INDUSTRY, LABOR AND HUMAN RELATIONS

1

Chapter Ind 4

ELEVATOR CODE

	4.01	Purpose (p. 1)	Ind 4.39	Location of stopping switches (p.
	4.02 4.03	Scope (p. 2) Installations and alterations (p.	Ind 4.40	15) Private residence elevators (p.
٠.		3)	* *	16)
	4.04 4.05	Petition for modification (p. 3)	Ind 4.41	Hand and power dumbwaiters
	4.06	Enforcement (p. 4) Plan examination and approval	Ind 4,42	(p. 16) Hoistways, hoistway enclosures
щц	4.00	(p. 4)	mu 4,42	and related construction (p. 16)
Ind	4.07	Tests and inspections (p. 5)	Ind 4.43	Driving-machine brakes (p. 17)
	4.08	Certificate of operation (p. 6)	Ind 4.44	Hand dumbwaiters (p. 17)
	4.09	Certification of inspectors (p.	Ind 4.45	Protection required (p. 17)
		7)	Ind 4.46	Additional acceptance tests and
Ind	4.10	Plan approvals by certified in-		inspection for hydraulic eleva-
		spectors (p. 7)		tors (p. 17)
Ind	4.11	Inspections by certified inspec-	Ind 4.47	Tests and inspections of existing
		tors (p. 7)		installations (p. 17)
Ind	4.20	Adoption of standards by refer-	Ind 4.48	Tests of safeties (p. 17)
		ence (p. 7)	Ind 4.49	Hydraulic elevators, additional
\mathbf{Ind}	4.21	Changes, additions or omissions		inspections and tests (p. 18)
		to ANSI/ASME A17.1-1981 (p.	Ind 4.50	Inspections and tests of escala-
		8)		tors and moving walks (p. 18)
	4.22	Introduction (p. 8)	Ind 4.51	Installations placed out of ser-
	4.23	Definitions (p. 8)	T 1 4 50	vice (p. 18)
ind	4.24	Construction of hoistways and	Ind 4.52 Ind 4.53	Maintenance (p. 18)
Ind	4.25	hoistway enclosures (p. 8) Machine rooms and machinery	Ind 4.53	Major alterations (p. 13) Increase or decrease in travel and
TITLE	3.20	spaces (p. 9)	114 4.04	change in location of the driving
Ind	4.26	Installation of pipes or ducts		machine (p. 19)
		conveying gases, vapors or li-	Ind 4.55	Change in type of operation or
		quids in any hoistway, machine		control (p. 19)
		room or machinery space (p. 9)	Ind 4.56	Addition of emergency recall and
Ind	4.27	Guarding of exposed equipment		emergency in-car operation (p.
		(p. 10)		19)
	4.28	Pits (p. 10)	Ind 4.57	Repairs and replacements of
Ind	4.29	Bottom and top clearances and		damaged, broken or worn parts
		runbys for elevator cars and		(p. 19)
		counterweights (p. 10)	Ind 4.58	Limitation of load, speed and
Ind	4.30	Hoistway-door locking devices,	T 1 4 50	platform area (p. 19)
		car door or gate electric contacts,	Ind 4.59	Types of driving machines (p. 19)
		hoistway access switches, and el-	Ind 4.60	Private residence inclined lifts
Ind	4.31	evator parking devices (p. 11) Passenger-car enclosures (p. 12)	1110 4.00	(p. 20)
	4.32	Car and counterweight safeties	Ind 4.61	Accessibility requirements for el-
	2,02	(p. 12)	*124 4102	evators (p. 20)
Ind	4.33	Speed governors (p. 13)	Ind 4.70	Scope (p. 22)
	4.34	Operating devices and control	Ind 4.71	General requirements (p. 22)
		equipment (p. 13)	Ind 4.72	Special requirements for vertical
Ind	4.35	Emergency operation and signal		wheelchair lifts (p. 25)
		devices (p. 14)	Ind 4.73	Special requirements for inclined
Ind	4.36	Splicing and replacement of sus-		wheelchair lifts (p. 26)
		pension ropes (p. 15)	Ind 4.74	Special requirements for stair-
Ind	4.37	Hoistways, hoistway enclosures		way chair lifts (p. 27)
Y	4.00	and related construction (p. 15)		

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

Ind 4

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;
 - (i) 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;

Register, January, 1983, No. 325

(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 Ind 4

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 employes 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;

Register, January, 1983, No. 325