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Wisconsin Administrative Code

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS

Chapter ILHR 18
ELEVATORS

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS

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Purpose and Structure

The Legislature, by s. 35.93 and ch. 227, Stats., directed the publication of the rules of executive agencies having rule-making authority in a loose-leaf, continual revision system known as the Wisconsin Administrative Code. The Code is kept current by means of new and replacement pages. The pages are issued monthly, together with notices of hearings, notices of proposed rules, emergency rules, instructions for insertion of new material, and other information relating to administrative rules. This service is called the Wisconsin Administrative Register, and comes to the subscriber near the middle and at the end of each month. Code pages are issued to subscribers only with the end of the month Register. The editing and publishing of the Register and Code is done by the Revisor of Statutes Bureau, Suite 800, 131 W. Wilson St., Madison, Wisconsin, 53703. (608-266-7275).

Availability

The complete code and the upkeep service are distributed to the county law libraries; to the libraries of the University of Wisconsin Law School and Marquette University Law School; to the State Historical Society; to the Legislative Reference Bureau and to the State Law Library, and to certain designated public libraries throughout the state.

The sale and distribution of the Register, Code and of its parts is handled by Department of Administration, Document Sales, P.O. Box 7840, Madison, Wisconsin 53707. (608-266-3358 information) (1-800-362-7253 or 608 264-9419 charge card orders).

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Each code with more than one chapter will have a table of chapters. After the title of each chapter will be the page numbers on which the chapter begins. Each chapter will have a table of sections.

History Notes

Each page of the code as it was originally filed and printed pursuant to the 1955 legislation, had a date line "1-2-56". A rule which is revised or created subsequent to the original printing date is followed by a history note indicating the date and number of the Register in which it was published and the date on which the revision or creation of the rule became effective. Additions to a section's history note will be shown in bold face when those affected code sections are first released. The absence of a history note at the end of a section indicates that the rule has remained unchanged since the original printing in 1956. The date line at the bottom of the page indicates the month in which the page was released, but does not necessarily mean a substantive change has occurred on that page. Some common abbreviations used in the history notes are: cr. - created, am. - amend, r. - repeal, recr. - recreate, renum. - renumber, eff. - effective and emerg. - emergency.

In some instances an *entire* chapter has been repealed and recreated or renumbered subsequent to the original printing date. When this occurs a note has been placed at the beginning of the chapter after the table of sections to contain this information. A separate history note appears after each section indicating the date when the revision or creation became effective.

Index

The index for the complete Wisconsin Administrative Code will be found in the last volume of the complete set. It will be recompiled, reprinted and distributed at least 3 times a year. Some codes have a separate index prepared by the agency involved. See the Uniform Dwelling Code (chs. ILHR 20-25) and the Building and Heating Code (chs. ILHR 50-64) as examples.

Chapter ILHR 18

ELEVATORS

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Note: Subchapter I — Administration and Enforcement

ILHR 18.01 Purpose. Pursuant to ss. 101.12, 101.13 and 101.17, Stats., the purpose of this chapter is to protect the health, safety and welfare of the public and employes by establishing minimum standards for the design, construction, installation, operation, inspection, testing, maintenance, alteration and repair of elevators and related devices installed in all public buildings and places of employment

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.02 Scope. (1) COVERED EQUIPMENT. This chapter applies 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;

Note: The applicable rules of Parts 1, 2 and 3 of ASME A17.1 are used to determine the safe operation of stage and orchestra lifts.

- (f) Material lifts and dumbwaiters with automatic transfer devices;
 - (g) Special purpose personnel elevators; and

the responsibility for interpreting the rules in this chapter, including those in the incorporated ASME A17.1 standard, and for the approval of equipment and material. Requests for interpretations shall be in writing to the department.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

Subchapter II - General Requirements

- ILHR 18.09 Plan examination and approval. (1) PLAN SUBMITTAL. Plans and specifications for all new installations covered by this chapter 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 or from passenger to freight service;
 - (e) Addition of hoistway doors or gates;
 - (f) Relocation of machine room or machinery space;
- (g) Replacement of an existing driving machine by a new driving machine; and
- (h) Replacement of an existing controller by a new controller.
- (2) Information required on Plans. The manufacturer's representative or the distributor who furnishes the mechanical equipment shall submit to the department at least 4 sets of plans, including specifications, and a letter from the registered architect or engineer or the person responsible for the design of the building verifying that the selected mechanical equipment conforms to the approved building plans, or the registered architect or engineer shall stamp the mechanical equipment plans as conforming to the approved building plans. 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. ILHR 18.83 (9);
- (b) A section through hoistway, machine room, pit and car showing all applicable dimensions. All landings shall be clearly shown, indicating types of hoistway doors or gates used;
- (c) A complete layout of the machine room including working clearances around machine, controller and disconnecting means showing dimensions to adjacent or opposite walls and equipment, or both; and
- (d) The size and weight per foot of guiderails and details of their support, including reinforcement where required.
- (3) APPLICATION FOR INSTALLATION OR ALTERATION. 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 (h) and the following alterations:
 - (a) Change in type of operation or control;

- (b) Addition of phase I emergency recall and phase II emergency in-car operation specified in ASME A17.1 Rule 211.3.
 - (c) Change in size or type of suspension ropes;
- (d) Replacement, change in type, or addition of a car or counterweight 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; and
 - (k) Replacement of valves.

Note: See Appendix A for an example of the application to erect or remodel form (SB-22).

- (4) APPROVAL OF PLANS AND APPLICATION. All approvals of plans and applications for installation or alteration shall be performed by certified department or municipal elevator inspectors.
- (a) Conditional approval. If, upon examination, the department or municipality determines that the plans and application for installation or alteration substantially conform to the provisions of this chapter, a conditional approval, in writing, shall be granted. All noncode-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 and an elevator permit issued.
- (5) OWNER'S RESPONSIBILITY. The submission of plans, specifications and application form shall be the responsibility of the building owner when the manufacturer, manufacturer's representative or distributor does not submit that information.
- (6) PROCESSING TIME. The department shall review and make a determination on an application for approval of an installation or an alteration within 15 business days of receiving the required information.
- (7) MANUFACTURER'S RESPONSIBILITY. A manufacturer of any elevator or lift installed in a public building or place

(3) 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 the owner the opportunity for a hearing within 30 days from the date of revocation.

Note: See Appendix A for an example of the certificate for operation form.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.13 Certification of inspectors. (1) INITIAL CERTIFICATION. 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, payment of the required fees and successful passage of a written examination which is equivalent to the ASME Qualified Elevator Inspector Examination and given by the department. The inspector certification shall be issued within 15 business days of passage of the written examination.

Note: Copies of form SB-88 are available at no charge from the Safety and Buildings Division, P.O. Box 7969, Madison, Wisconsin 53707.

(2) RENEWAL OF CERTIFICATION. To qualify for renewal of certification, applicants shall submit no less than 10 complete valid inspection reports each 12 months.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

- ILHR 18.14 Adoption of standards by reference. (1) CONSENT TO INCORPORATE. (a) Pursuant to s. 227.21, 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, ASME A17.1-1990, subject to those changes, additions and omissions specified in subch. III.
- (b) The American National Standard Safety Code for Elevators and Escalators, ASME A17.1-1990, subject to the changes, additions and omissions specified in subch. III is hereby incorporated by reference into this chapter.
- (2) INTERIM SUPPLEMENTS. Interim supplements to the ASME A17.1-1990 standard shall have no effect in the state until such time as this chapter is correspondingly revised to reflect those changes.
- (3) AVAILABILITY OF STANDARDS. Copies of the ASME A17.1-1990 standard can be obtained from the ASME Order Department, 22 Law Drive, Box 2300, Fairfield, N.J. 07007-2300.
- (4) FILING OF COPIES. Copies of the standard in reference are on file in the offices of the department, the secretary of state, and the revisor of statutes.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.15 Construction and operation. All installations of equipment under the scope of this chapter shall conform to the American National Standard Safety Code for Elevators and Escalators, ASME A17.1-1990, subject to those changes, additions and omissions specified in subch. III.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

Subchapter III — Changes, Additions or Omissions to Adopted Standards

iLHR 18.16 Changes, additions or omissions to ASME A17.1. Changes, additions or omissions to the ASME A17.1 standard are specified in this subchapter and are rules of the department and are not requirements of the ASME A17.1 standard.

Note: The referenced A17.1 section or rule number, located in brackets, follows the ILHR designation and precedes the text of the rule. Example: ILHR 18.23 [A17.1 Section 3].

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

INTRODUCTION

ILHR 18.17 Scope and purpose. [A17.1 Section 1 and Section 2] (1) A17.1 Section 1 - Scope and Section 2 - Purpose and Exceptions do not apply in Wisconsin.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.18 Definitions. [A17.1 Section 3] (1) ADDITIONS. The following are department definitions in addition to the definitions in A17.1 Section 3:

- (a) "Department" means the department of industry, labor and human relations.
- (b) "Clear floor space" means the minimum unobstructed floor or ground space required to accommodate a single, stationary wheelchair and occupant.
- (c) "Fire-resistive rating" means a rating as defined in s. ILHR $51.01\ (50)$.
- (d) "Municipality" means a city employing elevator inspectors certified by the department and exercising legal jurisdiction over elevator installations covered by this chapter.
- (e) "Place of employment" means a place, whether indoors or out or underground and premises appurtenant thereto where either temporarily or permanently any industry, trade or business is carried on, or where any process or operation, directly or indirectly related to any industry, trade or business, is carried on, and where any person is, directly or indirectly, employed by another for the direct or indirect gain or profit, but does not include any place where persons are employed [in] a private domestic service which does not involve the use of mechanical power or in farming.
- (f) "Public building" means any structure, including exterior parts of such building, such as a porch, exterior platform or steps providing means of ingress or egress, used in whole or in part as a place of resort, assemblage, lodging, trade, traffic, occupancy, or use by the public or by 3 or more tenants. When used in relation to building codes, "public building" does not include a previously constructed building used as a community-based residential facility as defined in s. 50.01 (1g), Stats., which serves 20 or fewer unrelated residents or an adult family home certified under s. 50.032 (1) (b), Stats.
- (2) SUBSTITUTIONS. The following department definitions are substitutions for the respective definitions in A17.1 Section 3:
 - (a) "Approved" means acceptable to the department.

(2) SPRINKLERS IN SHAFT. Where sprinklers are provided in an elevator shaft, a drain shall be installed in the pit.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.24 Bottom and top clearances and runbys for elevator cars and counterweights. [A17.1 107] (1) BOTTOM CAR CLEARANCES. [A17.1 107.1a] This is a department rule in addition to A17.1 107.1a: There shall be a minimum of 3 inches of clearance from the lowest projection on the car to the highest projection in the pit.

- (2) TOP CAR CLEARANCES FOR COUNTERWEIGHTED ELE-VATORS. [A17.1 107.1e] Substitute the following wording for A17.1 107.1e (3): Two feet or the distance which any sheave or any other equipment mounted in or on the car crosshead projects above the top of the car crosshead, whichever is greater, but in no case shall there be less than 6 inches clearance above the equipment inclusive of guide shoe assemblies or gate posts for vertical sliding gates, mounted on the car top or in or on the car crosshead when the car has reached its maximum upward movement.
- (3) REFUGE SPACE ON TOP OF CAR ENCLOSURE. [A17.1 107.1k] This is a department rule in addition to the requirements of A17.1 107.1K: Refuge space of 650 square inches shall be outlined by contrasting color and identified "Refuge Space" by 2-inch high letters on the top of all car enclosures.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.25 Horizontal car and counterweight clearances. [A17.1 108] Replace 108.1a with the following: The running clearance between the car and hoistway enclosure and any projection within the hoistway enclosure shall not be less than ¾ inch except on the sides used for loading and unloading.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

- ILHR 18.26 Holstway-door locking devices, car door or gate electric contacts, holstway access switches, and elevator parking devices. [A17.1 111] (1) LOCATION AND DESIGN OF HOISTWAY DOOR UNLOCKING DEVICES. [A17.1 111.9e] Substitute the following wording for A17.1 111.9e (2): The device shall be installed at all landings.
- (2) ACCESS TO HOISTWAYS FOR EMERGENCY PURPOSES. [A17.1 111.10] Substitute the following wording for A17.1 111.10:
- (a) The unlocking device operating key shall be located adjacent to the elevator disconnecting means located in the machine room. The key shall be identified and the following instructions shall be posted: "Place the disconnecting means in the off position and lock it, prior to using the hoistway door unlocking key."
- (b) The machine room door key shall be kept in the building and shall be made available to emergency response personnel such as the fire department, police department, or other similar departments.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

Part 2 — Machinery and Equipment for Electric Elevators

ILHR 18.27 Car enclosures, car doors and gates, and car illumination. [A17.1 204] (1) TOP EMERGENCY EXITS.[A17.1

- 204.1e (1) (c)] This is a department rule in addition to the requirements of A17.1 204.1e (1) (c): The top exit cover shall be hinged to open outward. The exit cover shall be openable only from the top of the car, where it shall be openable without the use of special tools. The exit cover of the lower compartment of a multi-deck elevator shall be openable from both compartments.
- (2) SIDE EMERGENCY EXITS. [A17.1 204.2d] Substitute the following wording for A17.1 204.2d: Side emergency exits are not permitted in Wisconsin.
- (3) PASSENGER CAR DOORS AND GATES. [A17.1 204.5] (a) Type required. [A17.1 204.5b] Substitute the following wording for A17.1 204.5b: In new buildings, horizontally sliding doors or gates subject to the restrictions of Rule 204.5c, shall be provided at each car entrance.
- (b) Vertical sliding doors or gates. [A17.1 204.5 (c)] Substitute the following wording for A17.1 204.5 (c): Vertical sliding doors and gates on passenger elevators are not permitted for use in Wisconsin.
- (4) ILLUMINATION AND OUTLETS REQUIRED. [A17.1 204.7a] Substitute the following wording for A17.1 204.7a (4): Each elevator shall be provided with an electric light fixture and at least one 120 volt, single phase, 15- or 20-ampere receptacle on the car top and on the underside of the car platform.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

- ILHR 18.28 Car and counterweight safeties. [A17.1 205] (1) REQUIRED DROP TEST. [A17.1 205] These are department rules in addition to the requirements of A17.1 205:
- (a) Drop test. Every car safety device not previously approved by the department, shall be subjected to a drop test as outlined in this paragraph. The test shall be made at the risk and expense of the elevator manufacturer and witnessed by the department.
- 1. The test shall be made with the total load on the car safety device. The total load shall include the weight of the car structure, the safety device, the live load, and all appurtenances and devices attached to the car.
- 2. The free fall shall be such that the safety under test shall have attained the maximum governor tripping speed before the safety actuating device starts to function, except that where approval is desired for speeds greater than 280 feet per minute the governor tripping speed need not exceed 280 feet per minute.
- 3. The total drop from the starting point to rest for type B safeties shall not exceed 15 feet.
- 4. The application of the car safety device shall not cause the car platform to become out of level in excess of $^{1}/_{2}$ inch per foot in any direction.
- 5. A drop test made on a car safety device that is designed and constructed to trip by inertia, when set within the drop test requirements, shall be considered as satisfactory. The governor in connection with the above car safety device shall be tested separately to determine the tripping speed as required in A17.1 Table 205.3.
- (b) Plans and specifications. Complete plans and specifications for every car safety device and speed governor to be tested shall be submitted to the department.

shall maintain the car within ½ inch of the landing irrespective of the position of the hoistway door.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

Part 4 - Power Sidewalk Elevators

ILHR 18.35 Scope. [A17.1 Part IV] This is a department rule in addition to A17.1 Part 4: A power sidewalk elevator shall not pierce a sidewalk, or be located within a building, and shall not be located in an area used by people or vehicles as a place of travel.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

Part 5 - Private Residence Elevators

ILHR 18.36 Scope. [A17.1 Part V] Substitute the following wording for the A17.1 Part 5 Scope: Part 5 residential elevators complying with this part and as modified in ss. ILHR 18.361 to 18.40 may only be installed in places of worship built prior to the effective date of this section.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.361 Holstways, holstway enclosures and related construction. [A17.1 500] (1) HOISTWAY ENCLOSURE CONSTRUCTION. [A17.1 500.1] (a) Substitute the following wording for A17.1 500.1, first paragraph, last sentence: The fire-resistive rating shall be in accordance with the requirements of Rule 100.1.

- (b) [A17.1 500.1] Section A17.1 500.1 (a) to (d) does not apply in Wisconsin.
- (2) PITS. [A17.1 500.2] This is a department rule in addition to the requirements of A17.1 500.2: A level pit shall be provided to accommodate all elevator equipment, but the minimum pit depth shall not be less than 12 inches.
- (3) TOP CAR CLEARANCE. [A17.1 500.3] Substitute the following wording for A17.1 500.3: The top car clearance shall be not less than 24 inches when the elevator reaches its maximum mechanical upward limit of travel.
- (4) PROTECTION OF HOISTWAY OPENINGS. [A17.1 500.4] (a) Hoistway gates. [A17.1 500.4] This is a department rule in addition to the requirements of A17.1 500.4: As used in this part hoistway gates are prohibited.
- (b) Opening of hoistway doors or gates. [A17.1 500.4e] Substitute the following wording for A17.1 500.4e: Hoistway doors shall comply with s. ILHR 18.362 (3).
- (5) PIPES IN HOISTWAYS. [A17.1 500.5] Substitute the following wording for A17.1 500.5: An installation of a pipe or duct conveying gases, vapors or liquids in a hoistway, machine room or machinery space shall comply with Rule 101.2.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.362 Cars. [A17.1 501] (1) CAR FRAMES AND PLATFORMS.[A17.1 501.1] This rule is a department rule in addition to the requirements of A17.1 501.1: A car platform shall be protected against fire as specified in Rule 203.8.

(2) CAR ENCLOSURE. [A17.1 501.2] This rule is a department rule in addition to the requirements of A17.1 501.2: A car enclosure shall comply with Rules 204.1f and 204.2.

- (3) CAR DOORS AND GATES. [A17.1 501.4] (a) Construction. [A17.1 501.4 intro] Substitute the following wording for A17.1 501.4 intro paragraphs: A car door or gate which, when closed, shall guard the full entrance opening and shall be provided at each entrance to the car. Car doors and collapsible car gates shall be of a solid design.
- (b) Power operation of car doors and gates. [A17.1 501.4a] Substitute the following wording for A17.1 501.4a:
- 1. 'Car hoistway doors'. a. Except as specified in subd. b., hoistway doors shall be power-opening and self-closing and shall comply with Rule 112.2a (1).
- b. Hoistway doors may be manual-opening and selfclosing, if a minimum clear maneuverability space of 5 feet by 5 feet with a minimum of 18 inches of clear space at the latch side of the door is provided at each landing hoistway door. The maximum force for pushing or pulling open an interior hinged door shall not exceed 5 pounds of force. If the hoistway door is rated, the maximum force for pushing or pulling open the door shall not exceed the minimum force necessary to keep the door in the latched position.
- 2. 'Car gates.' Car gates shall be power-closing and power-opening and shall comply with the requirements of Rules 112.3, 112.5 and 112.6.

Note: See Appendix B for an example of the maneuverability space required at a hoistway opening with a swing door.

- (c) Car door or gate locking devices. [A17.1 501.4b] Rule 501.4b is deleted and does not apply in Wisconsin.
- (4) LIGHT IN CAR. [A17.1 501.5] Substitute the following wording for A17.1 501.5: Lights on cars shall comply with Rule 204.7.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.363 Location and guarding of counterweights. [A17.1 502.2] Substitute the following wording for A17.1 502.2; Counterweights shall be located in the hoistway of the elevator which they serve. Where the space below the hoistway is not permanently secured against access, counterweights shall comply with Section 109.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.364 Buffers and buffer supports. [A17.1 505.1] Rule 505.1 (c) is deleted and does not apply in Wisconsin.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.365 Driving machines, sheaves and their supports. [A17.1 506] (1) HYDRAULIC DRIVING MACHINE. [A17.1 506.4] Substitute the following wording for the first paragraph of A17.1 506.4: Direct-plunger hydraulic driving machines shall conform to the requirements of Sections 302 and 303.

(2) SCREW MACHINES. [A17.1 506.5] Substitute the following wording for A17.1 506.5: Screw machines, where used, shall conform to the requirements of Section 1804, except that the rated speed shall not exceed 30 feet per minute.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.366 Stopping devices required. [A17.1 507.1] Substitute the following wording for A17.1 507.1 (c), the

- (a) If an object becomes caught between the handrail and the handrail guard; or
- (b) If an object approaches the area between the handrail and handrail guard.
- (2) COMB-STEP IMPACT DEVICES. Manual reset type devices shall be provided which cause the opening of the power circuit to the escalator driving machine motor and brake if either:
- (a) A horizontal force in the direction of travel is applied exceeding 112 pounds of force at either side, or exceeding 225 pounds of force at the center of the front edge of the combplate; or
- (b) A resultant vertical force in an upward direction is applied exceeding 150 pounds of force at the center of the front of the combplate.
- (3) STEP LATERAL DISPLACEMENT DEVICE. In the event that a step is excessively displaced horizontally due to a failure in the lateral support system, a device shall be provided, on curved escalators, to cause the opening of the power circuit to the escalator driving machine motor and brake. The device shall be of the manually reset type.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

Part 9 - Moving Walks

ILHR 18.47 General. [A17.1 905.1] This is a department rule in addition to A17.1 905.1:

- (1) HANDRAIL ENTRY DEVICE. A handrail entry device shall be provided at each newel. It shall operate in the handrail entry direction only, shall be of the manual reset type, and shall cause the moving walk to stop by removing power from the driving machine motor and brake. It shall operate in either of 2 ways:
- (a) If an object becomes caught between the handrail and the handrail guard; or
- (b) If an object approaches the area between the handrail and the handrail guard.
- (2) COMB-PALLET IMPACT DEVICES. Manual reset type devices shall be provided which will cause the opening of the power circuit to the moving walk driving machine motor and brake if either:
- (a) A horizontal force in the direction of travel is applied exceeding 112 pounds of force at either side, or exceeding 225 pounds of force at the center of the front of the combplate; or
- (b) A resultant vertical force in an upward direction is applied exceeding 150 pounds of force at the center of the front of the combplate.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

Part 10 — Routine, Periodic and Acceptance Inspections and Tests

ILHR 18.48 Persons authorized to make inspections and tests. [A17.1 1000.1] (1) GENERAL. [A17.1 1000.1] Section A17.1 1000.1 does not apply in Wisconsin.

(2) PERIODIC INSPECTION AND TESTS. [A17.1 1000.1b] Substitute the following wording for A17.1

1000.1b: Periodic inspections and tests shall be performed by persons possessing a minimum of 2 years of elevator construction, elevator service or elevator inspection experience. Proof of experience qualifications shall be submitted to the department upon request. The department may require witnessing of inspections and tests or retests.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.49 Installation placed out of service. [A17.1 1000.3] Substitute the following wording for A17.1 1000.3:

- (1) Removed from use. Elevators reported as not being used shall not be subjected to the annual inspection provided the installation conforms with the following requirements:
- (a) All hoistway landing doors or gates shall be securely sealed to prevent opening from the landings.
- (b) The conductors shall be disconnected from the load side terminals of the machine room circuit-breaker or disconnect switch.
- (c) The fuses shall be removed from the disconnect switchbox and it shall be sealed by the department.
- (d) For hand elevators, in addition to sealing the hoistway doors or gates, the car platform shall be substantially blocked and the hoisting cables removed from the car crosshead.
- (2) PUT BACK IN USE. Before the installation is put back in service, it shall be subject to the required annual inspection by [the] department.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.50 Inspection and test periods. [A17.1 1001.1] Substitute the following wording for A17.1 1001.1: The routine inspection and tests of passenger and freight electric elevators shall be made at intervals not longer than one year.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.51 Inspection and test periods. [A17.1 1002.1] Substitute the following wording for A17.1 1002.1: In addition to the routine inspections and tests specified under Rule 1001.2, the inspections and tests specified in Rule 1002.3 shall be made at intervals not longer than 5 years.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.52 One-year inspection and test requirements. [A17.1 1002.2] The following rules of A17.1 1002.2 do not apply in Wisconsin: 1002.2a Oil Buffers, 1002.2b Safeties, and 1002.2g Standby (Emergency) Power Operation.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.53 Five-year inspection and test requirements. [A17.1 1002.3] (1) SAFETY AND GOVERNOR SYSTEMS.[A17.1 1002.3a] (a) Substitute the following wording for the first sentence of A17.1 1002.3a: Types A, B and C car safeties and their governors shall be tested with rated load in the car.

(b) Substitute the following wording for the last paragraph of A17.1 1002.3a: A tag shall be fastened to the governor-releasing carrier upon completion of a satisfactory test of the car safety device and speed governor. Re-

returned by a separate pumping unit to a reservoir located outside of the hoistway.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

Part 13 - Design Data and Formulas

Note: There are no changes, additions or omissions to A17.1 Part 13.

Part 14 — Material Lifts and Dumbwaiters With Automatic Transfer Devices

Note: There are no changes, additions or omissions to A17.1 Part 14.

Part 15 — Special Purpose Personnel Elevators

Note: There are no changes, additions or omissions to A17.1 Part 15.

Part 16 — Reference Codes, Standards and Specifications

Note: There are no changes, additions or omissions to A17.1 Part 16.

Part 17 - Inclined Elevators

Note: There are no changes, additions or omissions to A17.1 Part 17.

Part 18 - Screw Column Elevators

Note: There are no changes, additions or omissions to A17.1 Part 18.

Part 19 - Elevators Used for Construction

Note: There are no changes, additions or omissions to A17.1 Part 19.

ILHR 18.67 Operation and operating devices. [A17.1 1901.2] This is a department rule in addition to the requirements of A17.1 1901.2: All elevators shall have an assigned operator while in use.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

Part 20 — Inclined Stairway Chairlifts, and Inclined and Vertical Wheelchair Lifts

ILHR 18.68 Scope. [A17.1 Part 20 Scope] Substitute the following wording for A17.1 Part 20 Scope:

- (1) Scope. This part applies to vertical wheelchair lifts and inclined wheelchair lifts installed in or at public buildings or places of employment and to stairway chairlifts installed in or at existing places of worship.
- (2) WHERE PERMITTED. (a) Vertical wheelchair lifts. A vertical wheelchair lift complying with this chapter and s. ILHR 52.04 may be used to provide circulation between floor levels. Vertical wheelchair lifts shall be on an accessible route and the accessible route may not pass through an occupied room.
- 1. 'New construction.' A vertical wheelchair lift may be used in lieu of an elevator only under the following conditions:
- a. To provide an accessible route to a performing area in an assembly occupancy.
- b. To comply with the wheelchair viewing position lineof-sight and dispersion requirements.
- c. To provide access to incidental occupiable spaces and rooms which are not open to the general public and which

house no more than five persons, including but not limited to equipment control rooms and projection booths.

- d. To provide access where existing site constraints or other constraints make use of ramp or an elevator infeasible.
- 2. 'Existing construction.' A vertical wheelchair lift may be used as part of an accessible route in an existing building.
- (b) Inclined wheelchair lift. 1. An inclined wheelchair lift may be used as a method of interior circulation between floor levels in an existing building.
- 2. The inclined wheelchair lift shall be on an accessible route and the accessible route shall not pass through a room.
- 3. The inclined wheelchair lift in its operational position shall not infringe into the required exit width for the stairway.
- (c) Stairway chairlift. 1. A stairway chairlift complying with this chapter is prohibited for use [in a] public building or place of employment, except where the stairway chairlift is used in an existing place of worship to provide access between floor levels which is not required by chs. ILHR 50 to 64.
- 2. A stairway chairlift installed in a required exit stairway shall be installed such that the required exit width as specified in chs. ILHR 50 to 64 shall be provided in addition to the space required for the stairway chairlift in its operational position. The minimum clear width shall be measured from the side of the lift, in its operational position, to the nearest edge of the opposite handrail or stringer.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

- ILHR 18.69 Runway enclosure provided. [A17.1 2000.1a] (1) VERTICAL SHAFT. [A17.1 2000.1a] This rule is in addition to the requirements of A17.1 2000.1a: A vertical shaft shall be designed and constructed in accordance with chs. ILHR 50 to 64.
- (2) Doors. [A17.1 2000.1a (2)] These rules are in addition to the requirements of A17.1 2000.1a (2):
- (a) Door operation. 1. Except as specified in subd. 2., hoistway doors shall be power-opening and self-closing and shall comply with Rule 112.2a (1).
- 2. Hoistway doors may be manual-opening and selfclosing, if a minimum clear maneuverability space of 5 feet by 5 feet with a minimum of 18 inches of clear space at the latch side of the door is provided at each landing hoistway door. The maximum force for pushing or pulling open an interior hinged door shall not exceed 5 pounds of force. If the hoistway door is rated, the maximum force for pushing or pulling open the door shall not exceed the minimum force necessary to keep the door in the latched position.

Note: See Appendix B for an example of the maneuverability space required at a hoistway opening with a swing door.

- (b) Side entrances. A side entrance to a lift is prohibited.
- (c) Lift operating keys and door unlocking device. A set of lift operating keys and a door unlocking device which is intended for use by the fire department, police department

are an acceptable means to provide raised control designa-

- c. All buttons or paddles shall be no higher than 48 inches above the finish floor. Emergency controls, including the emergency alarm and emergency stop shall be grouped at the bottom of the panel and shall have their centerlines no less than 35 inches above the finish floor.
 - d. Controls shall be located on a side wall of the lift.

Note: See Appendix B for examples of accessible car controls.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

- ILHR 18.74 Operating devices and control equipment. [A17.1 2000.10] (1) KEY OPERATION. [A17.1 2000.10a] Substitute the following wording for A17.1 2000.10a:
- (a) Key operation of a lift is prohibited. If an entrance to a lift is to the exterior of a building, the owner may lock the lift entrance when the building is not occupied by the public or employes, providing written approval is given by the department.
 - (b) Operation of the lift shall be by continuous-pressure.
- (2) ATTENDANT OPERATION. [A17.1 2000.10b] A17.1 2000.10b does not apply in Wisconsin.
- (3) EMERGENCY SIGNALS. [A17.1 2000.11] This is a department rule in addition to the requirements of A17.1 2000.11: If the lift is installed in an area not visible to personnel at all times, emergency signaling devices shall be provided in accordance with the requirements of Rules 211.1 (a) and 211.1 (b).

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.75 Means of egress. [A17.1 2001.1a] Substitute the following wording for A17.1 2001.1a:

- (1) LOCATIONS. An inclined wheelchair lift may be installed in a public building or place of employment only as permitted by the applicable provisions of s. ILHR 52.04.
- (2) Inclined wheelchair lift installed in a required exit stairway shall be installed such that the required exit width as specified in chs. ILHR 50 to 64 shall be provided in addition to the space required for the lift in its operational position. The clear width of a stairway shall be measured from the side of the inclined wheelchair lift guard, in its operational position, to the nearest edge of the opposite handrail or stringer.
- (3) INCLINED WHEELCHAIR LIFT INSTALLED IN A NONRE-QUIRED STAIRWAY. An inclined wheelchair lift installed in a nonrequired stairway shall comply with the following:
- (a) Where less than 24 inches of clear stairway area, measured from the side of the inclined wheelchair lift or guard adjacent to the lift to the nearest edge of the opposite handrail or stringer, is provided in addition to the inclined wheelchair lift in its operational position, the entire stairway shall not be used by pedestrians. Gates, guardrails, barriers and similar devices shall be used to prevent the use of the stairway by pedestrians.
- (b) Where a minimum of 24 inches of clear stairway area, measured from the side of the inclined wheelchair lift guard, in its operational position, to the nearest edge of

the opposite handrail or stringer, is provided and the stairway area is guarded in accordance with s. ILHR 18.76 (2), the stairway may be used by pedestrians.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

- ILHR 18.76 Clearances. [A17.1 2001.1b] These are department rules in addition to the requirements of A17.1 2001.1b:
- (1) LIFTS INSTALLED ON STAIRWAYS. An inclined wheel-chair lift shall be installed on a stairway.
- (2) GUARDING. Guarding shall be provided to comply with the following:
- (a) Solid guarding shall be provided between the lift runway and the stairway usable by pedestrians.
- (b) The guarding shall have no openings and shall be of sufficient height to prevent any pinching or shearing points.
- (c) On a stairway having less than 24 inches of clear space for pedestrians, the guarding shall be continuous so that the stairway cannot be used by pedestrians.
- (3) OVERHEAD CLEARANCE. A minimum overhead clearance of 6 feet 8 inches shall be provided between any point on the platform and the lowest overhead obstruction during the entire distance of travel.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

- iLHR 18.77 Cars and platforms. [A17.1 2001.6] (1) Construction. [A17.1 2001.6a] Substitute the following wording for A17.1 2001.6a (2): The platform area of a lift shall have a minimum clear width of 32 inches and a minimum clear length of 54 inches. The net inside platform area shall not exceed 18 square feet.
- (2) PLATFORM GUARDING. [A17.1 2001.6c] (a) General. [A17.1 2001.6c intro paragraph] Substitute the following wording for A17.1 2001.6c intro paragraph: Platform guarding shall be in accordance with Rule 2001.6c (1).
- (b) Roll off protection. [A17.1 2001.6c (2)] 1. A17.1 2001.6c (2) the first sentence does not apply in Wisconsin.
- 2. Substitute the following wording for A17.1 2001.6c (2), second paragraph: A retractable metal guard at least 6 inches high shall be provided on the upper access end for units complying with A17.1 2001.6c (1) and (2). When in use, the incline of the ramp shall not be greater than:
 - a. 1 in 6 for heights up to $2 \frac{1}{2}$ inches.
- b. 1 in 8 for heights greater than 2 $^{\rm I}/_{\rm 2}$ inches and less than 3 inches.
 - c. 1 in 12 for heights 3 inches or greater.
- (3) HAND GRIP. Substitute the following wording for A17.1 2001.6c (2), third paragraph: A hand grip shall be provided at a height of not less than 36 inches from the platform on the sides not used for access or exit.

History: Cr. Register, March, 1994, No. 459, eff. 4-1-94.

ILHR 18.79 Capacity, load, speed and angle of inclination. [A17.1 2001.7] These are department rules in addition to the requirements of A17.1 2001.7:

one inch, above finish floor. Door reopening devices shall remain effective for at least 20 seconds. After such interval, doors may close in accordance with the requirements of A17.1 Rule 112.3.

Note: See Appendix B for an illustration of a hoistway and elevator entrance.

(7) Door and signal timing for hall calls. The minimum acceptable time from notification that a car is answering a call until the doors of that car start to close shall be calculated from the following equation:

$$T = D/(1.5 \text{ ft/s}) \text{ or } T = D/(445 \text{ mm/s})$$

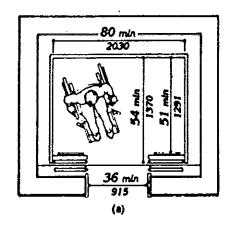
where T total time in seconds and D distance, in feet or millimeters, from a point in the lobby or corridor 60 inches directly in front of the farthest call button controlling that car to the centerline of its hoistway door. For cars with incar lanterns, T begins when the lantern is visible from the vicinity of the hall call buttons and an audible signal is sounded. The minimum acceptable notification time shall be 5 seconds.

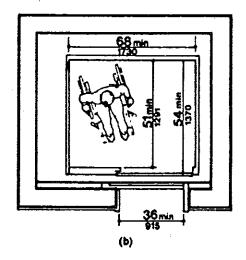
Note: See Appendix B for graph of timing equation.

(8) DOOR DELAY FOR CAR CALLS. The minimum time for elevator doors to remain fully open in response to a car call shall be 3 seconds.

- (9) FLOOR PLAN OF ELEVATOR CARS. (a) New construction. 1. Except as provided in subd. 2., the floor area of elevator cars installed in new construction shall provide space for wheelchair users to enter the car, maneuver within reach of controls, and exit from the car. Acceptable door opening and inside dimensions shall be as shown in Figure 18.83-A. The clearance between the car platform sill and the edge of any hoistway landing shall be no greater than 1-1/4 inch.
- 2. When elevators are provided in health care facilities, including medical clinics, and in all buildings over 3 stories in height, at least one elevator shall have the combination of car size and door opening which accommodates a 76 inch by 24 inch ambulance type stretcher in the horizontal position with no tilting at any time.
- (b) Existing construction. If an elevator is installed in an existing building and the car size specified in par. (a) cannot be provided, the minimum clear platform size shall be not less than 36 inches wide by 54 inches in length, with a minimum area of 13.5 square feet. Information shall be submitted with the elevator plans justifying why the larger size elevator cannot be installed.

FIGURE 18.83-A





Minimum Dimensions of Elevator Cars

- (10) FLOOR SURFACES. Floor surfaces shall comply with the following:
- (a) A change in level up to ½ inch may be vertical and without edge treatment. A change in level between ¼ inch and ½ inch shall be beveled with a slope no greater than 1:2. A change in level greater than ½ inch shall be accomplished by means of a ramp with a slope of not less than 1:12.
- (b) If carpet or carpet tile is used on a ground or floor surface, then it shall be securely attached; have a firm cushion, pad, or backing, or no cushion or pad; and have a level loop, textured loop, level cut pile, or level cut/uncut
- pile texture. The maximum pile thickness shall be ½ inch. Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge. Carpet edge trim shall comply with par. (c).
- (c) A change in level up to \(^{1}\)4 inch may be vertical and without edge treatment. A change in level between \(^{1}\)4 inch and \(^{1}\)2 inch shall be beveled with a slope no greater than 1:2. A change in level greater than \(^{1}\)2 inch shall be accomplished by means of a ramp that complies with par. (a).
- (d) If gratings are located in walking surfaces, then the gratings shall have spaces no greater than ½ inch wide in one direction. If gratings have elongated openings, then

- (6) LOCATION AND GUARDING OF COUNTERWEIGHTS. The location and guarding of counterweights shall conform to the requirements of A17.1, Section 103.
- (7) GUARDING OF EXPOSED AUXILIARY EQUIPMENT. The guarding of exposed auxiliary equipment shall conform to the requirements of A17.1, Section 104.
- (8) Machinery and sheave beams, supports and foundations. Machinery and sheave beams, supports and foundations shall conform to the requirements of A17.1, Section 105.
- (9) PITS. (a) General. A pit shall be installed in accordance with A17.1, Section 106 and s. ILHR 18.23.
- (b) Floor level. If a pit is created over an existing floor and the floor of the limited-use elevator is not at the same level as the floor level, then a level platform complying with s. ILHR 52.04 (9) shall be provided at the entrance to the unit. The ramp to the level platform area shall comply with the applicable provisions of s. ILHR 52.04.
- (10) BOTTOM CAR CLEARANCES. (a) Except as specified in pars. (b) and (c), the bottom car clearances shall comply with A17.1, Section 107.
- (b) When the car rests on its compressed buffer, no part of the car or equipment attached thereto shall strike the pit or any part of the equipment located therein.
- (c) The bottom runby of uncounterweighted elevators shall be not less than 3 inches.
- (11) TOP CAR CLEARANCE. The top car clearance shall be not less than 24 inches when the car has reached its maximum limit of upward travel including a minimum of 3 inches to a maximum of 6 inches of runby.
- (12) HORIZONTAL CAR CLEARANCES. Horizontal car clearances shall comply with A17.1, Section 108 and s. ILHR 18.25.
- (13) PROTECTION OF SPACES BELOW HOISTWAYS. The protection of spaces below hoistways shall conform to the requirements of A17.1, Section 109.
- (14) PROTECTION OF HOISTWAY OPENINGS. (a) General. Except as specified in par. (d), the protection of hoistway openings shall comply with A17.1, Section 110.
- (b) Hoistway door. A hoistway door shall comply with s. ILHR 18,26.
- (c) Swing door. Where a limited-use elevator is used which has a swing type door, the door shall not swing into or obstruct the required exit passageway.
- (d) Exceptions. 1. The entrances specified under A17.1 Rule 110.2 shall be of the horizontal slide or single section swing type.
- 2. A17.1 Rules 110.10c, 110.10d, 110.12, 110.13e and 110.15c do not apply.
- (15) HOISTWAY DOOR LOCKING DEVICES AND ELECTRICAL CONTACTS. (a) Except as specified in par. (b), hoistway door locking devices, hoistway door and car door electric contacts and hoistway access switches shall conform to the requirements of A17.1, Section 111 and s. ILHR 18.26.

- (b) Hoistway-unit system combination mechanical locks and electric contacts specified under A17.1 Rule 111.1b are not permitted.
- (c) Truck zoning devices as specified in A17.1 Rules 111.3a (1) and 111.5a (1) are not permitted.
 - (d) A17.1 Rule 111.4 does not apply.
- (e) A17.1 Rule 111.9c (2) does not apply, since the car cannot be operated at a speed greater than 30 feet per minute
- (f) The 18 inch dimension as specified in A17.1 Rule 111.12 for the unlocking zone shall be reduced in accordance with sub. (24).
- (16) POWER OPERATION OF HOISTWAY DOORS AND CAR DOORS. (a) Except as specified in par. (b), car doors shall be power-opening and power-closing and hoistway doors shall be power-opening and may be self-closing. The car doors and hoistway doors shall also comply with the requirements of A17.1, Section 112.
- (b) A17.1 Rules 112.2b (3), 112.3b and 112.3d do not apply.
- (17) CLEARANCE BETWEEN HOISTWAY DOORS AND LAND-ING SILLS AND CAR DOORS. The clearance between the hoistway doors and the hoistway edge of the landing sill shall not exceed 1/4-inch. The distance between the hoistway face of the landing door and the car door or gate shall not exceed 2-1/4 inches.
- (18) SAFETY FACTOR. All component parts of a limiteduse elevator shall have a safety factor of at least 5 when the unit is in its normal use configuration.
- (19) CAR AND COUNTERWEIGHT GUIDE RAILS. (a) Except as specified in par. (b), car and counterweight guide rails, guide rail supports and fastenings shall conform to the requirements of A17.1, Section 200.
- (b) 1. The same set of guide rails may be used for both car and counterweight.
- 2. A17.1 Rules 200.3 (a) and 200.3 (b) (1) do not apply. Guide rails, supports, joints, fishplates and fastenings which are not covered by Section 200 may be used, provided that the strengths, stresses and deflections are consistent with the requirements of A17.1, Section 200 for the loads imposed.
- 3. Where guide rail sections other than those specified in A17.1 Rule 200.3 (a) are used:
 - a. Rules 200.7b and 200.10b do not apply.
- b. The rail joints shall be designed in accordance with Rule 200.5a and shall adequately maintain the accuracy of the rail alignment.
- c. The allowable deflection of the guide rail shall be limited to prevent the safety device from disengaging the rail during application of the load.
- (20) CAR AND COUNTERWEIGHT BUFFERS. Car and counterweight buffers shall comply with A17.1, Section 201.
- (21) COUNTERWEIGHTS. Counterweights where used shall comply with A17.1, Sections 103 and 202.

APPENDIX A

The material contained in this appendix is for clarification purposes only. The following are examples of forms SBD-22-Application to Erect or Remodel, SBD-7316-Application to Erect or Remodel Lift for Disabled, SBD-2D-

Elevator Inspection, SBD-2E-Test Report and SBD-252-Certificate of Operation. Also included is the fee schedule for elevators, power dumbwaiters, escalators, moving walks and ramps and lifts for the people with disabilities.

Wisconsin Department of Industry, Labor and Human Relations Safety & Buildings Division

APPLICATION TO ERECT OR REMODEL LIFT FOR DISABLED

Elevator Section P O Box 7969 Madison, WI 53707 (608) 267-9606

| | | | s. 101.12 | 2(1)(c) | | | (608) 267-9606 |
|--|---|--|--|--|--|---|-------------------|
| Submitted for (check | ☐ Vertical Whe | eel Chair Inclined Wheel Chair | | | Stairway Chair | | |
| Application is made to the item checked about of the Department, elevator code of the control of | ve in accord The installati | ance with the follow ion will include deta | ving detailed sta ils shown below | tement and a | ittached plar include all c | s, and subj | ect to the orders |
| User Name | • • • | | 1 | Owner Name | | | |
| | | | IF USER IS | Ottiler Haine | | | |
| Number & Street | | | NOT THE OWNER, PROVIDE AT | Number & Stre | et | | |
| Crty | State | Zip Code | RIGHT | City | | State | Zip Code |
| ☐ Office [☐ Retail [| Tavern or | ling is used for: dining (greater than dining (less than 10 | | ☐ Hote ☐ Apt. | ary/Museum el/Motel Bldg./Condo er (describe) | | · . |
| 2. Submit verificatio | n of plan or a | alteration approval | from Safety and | Buildings Div | rision (copy o | f approval | etter). |
| b. All exits and ec. Proposed loca5. In addition to #4.a. Plan view of h | andrail Irawing with uding all din xit stairways tion of lift (for above, final oistway (who | this application sho nensions of floor ser , including widths so or required exit stair | wing: ved by a lift; pecified in #3. ab ways, on right si pproval shall inc g all dimensions | ide ascending lude: and clearanc | es; and | - - - | |
| Total Travel · Rate | dload Rate | ed Speed Hoistway, Si. | ze Car, Size | Type A Safe | ty Device | Overspeed C | iovernor Provided |
| StoriesFeet Hoistway Door, Type No. of Doors How Doors Operated | | | | Yes No Locking Devices for Doors | | ☐ Yes ☐ No Hoistway Door Unlocking Device | |
| | 55013 | o ooois operateu . | | LOCKING DEV | ices for Doors | <u> </u> | es 🗌 No |
| Overhead Clearance Heig | ht of Landing G | ates No of Landi | ng Gates | Locking Dev | ice for Gates | No. of Car Er | |
| | | Power Operated Toegu | | | e Hoisting Cable | | Hoisting Cables |
| Unit Manufactured By | | Unit To Be Installed By | <u> </u> | Wisconsin Registration Number | | | Number |
| | | odel fee is to be subn oper fees and enter | | application. | • | | |
| Total Cost To Purchase: | | Plan Examination Or R | lemodel Fee (1.5% o | of total cost) | | | |
|) 5 | | Total Cost X 015 = | | . | Fee | > \$_ | |
| I certify that the above state Applicant Signature | ements are true | and accurate to the best | of my knowledge ar Date Signed | nd belief | Total Fee (\$200 minimu | ım) > \$ | |

Wisconsin Department of Industry, Labor and Human Relations Safety and Buildings Division

SAFETY DEVICE AND GOVERNOR TEST REPORT

Elevator Safety Section P O. Box 7969 Madison, WI 53707 (608) 267-3576

(In compliance with Elevator Code Sections ILHR 18 and A17.1 1002.3)

| | | | ☐ Safe | ty Test | ☐ Run A | way Test | | |
|------|--|-----------------------------|--|-----------|---------------|--------------------------------------|-------------|-------------------------|
| City | | Premises | | | | | Sta | ste Registration Number |
| Occi | upant | | | | | | <u> l</u> | , |
| Own | ner or Agent | | Owner/Agent | Address | | | | |
| 1. | Rated Capacity | | lbs. Rated | Speed _ | F.P. | M. Pass | | Frt |
| | Machine Drum Type | | | | | | | |
| | | | | | | | | |
| 3. | Type Safety (circle one): | | | | | adual wedge-cl | | Flexible-guide-clamp; |
| | Combination Instantane | | | | | | | |
| 4. | Before the safety test is | made, the ç | governor shal | l be chec | ked for corre | ect tripping spe | ed. Gov | ernor set to trip |
| | at | F.F | P.M. Actu | al Car Sp | eed | | | |
| 5. | Was safety tested with c | ontract loa | d in the car? | and a | 111 45% | If no, pounds | tested? | |
| б. | Governor Rope: M | anila; | 6×19@ [| TMI | Iron | n or Steel; | Size | |
| | Condition or governor re | ope or cabl | e after 🔊 🕻 | Mr. | | · | | |
| 7. | Length of marks on guid | le rails mad | le by safety ja | iws: | R.H. Rail | | | ж. |
| | | | | | L.H. Rail | | | <u> </u> |
| 8. | Did car set out of level? | ☐ Ye | s 🗌 No | If yes, i | nches out of | level | | |
| 9. | Did governor set satisfac | torily? | □Yes □ |] No | Remarks | | <u> </u> | |
| 0. | Did safety test prove sat | isfactory? | ☐ Yes | □ No | Remarks | | | |
| 1. | Was the tag fastened to | the govern | nor release ca | rrier? | ☐ Yes | □ No | , | |
| he a | above safety and govern 18 and A17.1 1002.3 and | or tests wer I proved sa | re made in co tisfactory. | mplianc | e with the W | isconsin Admin | istrative (| Code Sections |
| irm | Performing test | | | | | | | |
| este | er's Signature | | | | Da | te Tested | | |
| LEP(| ORTS SHALL BE FILED WI'S AFTER THE TEST DATE. | TH THE DEF | PARTMENT O | FINDUS | TRY, LABOR | AND HUMAN R | ELATION | S WITHIN FIFTEEN (15) |
| | Copy Distribution: | Pink - To b | be retained be sent to the o be retained | Safety 8 | i Buildings D | rforming tests. ivision, P.O. Bos | k 7969, M | adison, WI 53707 |

SBD-2E (R 10/88)

NFPA 13, Table 2-2.3.1

2-2.3.1 The standard temperature ratings of automatic sprinklers are shown in Table 2-2.3.1 on the following page. Automatic sprinklers shall have their frame arms colored in accordance with the color code designated in Table 2-2.3.1.

Exception No. 1: A dot on the top of the deflector, or the color of the coating material, or colored frame arms shall be permitted for color identification of corrosion-resistant sprinklers.

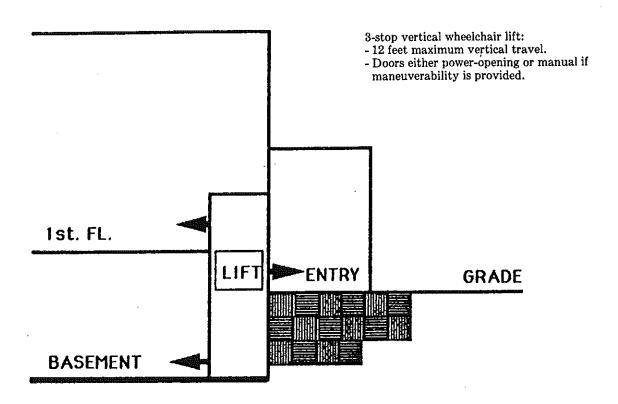
Exception No. 2: Color identification shall not be required for ornamental sprinklers such as factory plated or factory painted sprinklers or for recessed, flush, or concealed sprinklers.

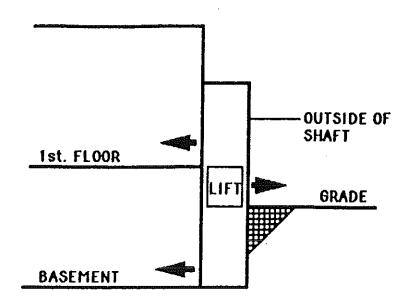
Exception No. 3: The frame arms of bulb type sprinklers need not be color coded.

Sprinklers are color coded in accordance with 2-2.3.1 to provide a ready means of establishing the temperature classifications of their operating elements. Table 2-2.3.1 indicates the range of temperatures for sprinklers in each classification and the maximum ceiling temperatures for which each classification may be installed. Exception No. 2 recognizes that traditional color codings are not applicable to specially coated sprinklers, such as decorative or ornamental sprinklers. In some cases, these devices may also be listed as a corrosion-resistant sprinkler in order to receive a particular color finish.

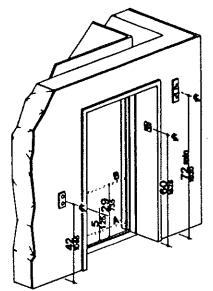
| Table | 2-2.3. | 1 Tempera | Temperature Ratings, Classifications, and Color Codings | | | | | | | | |
|-------|------------------------|-------------|---|-----------------|-----------------------|--------------------|--|--|--|--|--|
| Ce | lex. illing imp. | • | perature ating | Temperature | Color | Glass Buib | | | | | |
| 'F | *C | *F . | •C | Classification | Code | Colors | | | | | |
| 100 | 38 | 135 to 170 | 57 to 77 | Ordinary | Uncolored or Black | Orange or Red | | | | | |
| 150 | 66 | 175 to 225 | 79 to 107 | Intermediate | White | Yellow or Green | | | | | |
| 225 | 107 | 250 to 300 | 121 to 149 | High | Blue | Blue | | | | | |
| 300 | 149 | 325 to 375 | 163 to 191 | Extra High | Red | Purple | | | | | |
| 375 | 191 | 400 to 475 | 204 to 246 | Very Extra High | Green | Black | | | | | |
| 475 | 246 | 500 to 575 | 260 to 302 | Ultra High | Orange | Black | | | | | |
| 625 | 329 | 650 | 343 | Ultra High | Orange | Black | | | | | |

A-18.73 Examples of vertical wheelchair lifts with 3-stops.





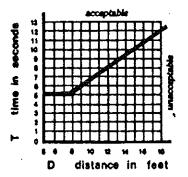
A1-18.83 Examples of hoistway and elevator entrances.



NOTE: The automatic door reopening device is activated if an object passes through either line A or line B. Line A and line B represent the vertical locations of the door reopening device not requiring contact.

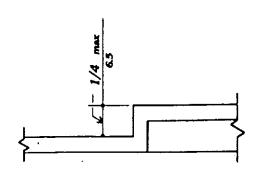
Holstway and Elevator Entrances

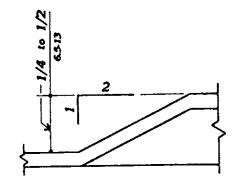
A-18.83 Graph of timing equation.



Graph of Timing Equation

A-18.83 Changes in levels.





Register, March, 1994, No. 459

A-18.83 Examples of accessible car controls.

