

Draft Elevator Rule Language - Version 1
Elevator Rulemaking (Code Adoption)
November 8, 2022
Chapter 296-96 WAC

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-00600 Application of adopted standards and rules.

Conveyances are required to comply with rules and standards that:

(1) Were in effect at the time of the original installation ~~((+))~~

Commented [CAR(1)]: Changes punctuation to combine language with subsection (1) for simplicity.

or

~~((2) Were in effect))~~ at the time of any alteration;

Commented [CAR(2)]: Changes to combine language with subsection (1) for simplicity.

~~((3))~~ (2) Apply to new and existing elevators (see ASME

Commented [CAR(3)]: Changes the subsection numbering and removes the word "and" for formatting.

A17.1/CSA B44 1.1.3); ~~((and~~

~~((4))~~ (3) Apply to ASME A17.3, Safety Code for Existing Elevators

Commented [CAR(4)]: Changes the subsection numbering and adds the word "and" for formatting. Adds new language "apply to" for grammar and rule clarity.

and Escalators and chapter 296-96 WAC, Part D; and

(4) Apply to buildings equipped with sprinklers. See WAC 296-96-

Commented [CAR(5)]: Creates a new subsection to address the need for sprinklers in buildings that have sprinkler systems. If installing an elevator or during construction, then sprinklers need to be installed per NFPA 13 and 72, within ASME A17.1/CSA B44. This was already an existing requirement and referenced in the adopted code. This change incorporates it into rule for clarification this requirement applies.

02487 under Part C, Section 7. NFPA 13 and NFPA 72 are applicable as

referenced by ASME A17.1/CSA B44 and comply with safe design and

installation of conveyance work as outlined in WAC 296-96-00500 and

RCW 70.87.020.

Copies of previous rules adopted by the department are available upon request.

If the department determines that a conveyance was installed or altered without a permit and inspection, the installation or alteration will be required to comply with the applicable rules and standards adopted by the department at the time the noncompliant installation or alteration was identified.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-00600, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-00600, filed 11/27/13, effective 1/1/14. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185, 70.87.190, 2002 c 98, 2003 c 143 and 2004 c 66. WSR 04-12-047, § 296-96-00600, filed 5/28/04, effective 6/30/04. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-00600, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-00650 Adopted standards.

ELEVATOR CODES AND SUPPLEMENTS ADOPTED				
TYPE OF CONVEYANCE	CODE AND SUPPLEMENTS	DATE INSTALLED		COMMENTS
		FROM	TO	
Elevators, Dumbwaiters,	American Standard Safety	11/1/1963	12/29/1967	Adopted Standard

Commented [CAR(6): This change revises the table of national elevator codes and supplements adopted by I&I. The changes revises the installation dates for elevators from January 1, 2023, to "current", as new codes and standards are being adopted. Also, changes for updates to no longer reference older codes after January 1, 2023.

Updates the titles of A10.4-2016, ASME A17.1-2019/CSA B44-19, and ANSI/ASSP A10.5-2020. Current code authority has relabeled the standards to reflect changes.

ELEVATOR CODES AND SUPPLEMENTS ADOPTED				
TYPE OF CONVEYANCE	CODE AND SUPPLEMENTS	DATE INSTALLED		COMMENTS
		FROM	TO	
Escalators	Code (ASA) A17.1, 1960			
NATIONAL ELEVATOR CODES AND SUPPLEMENTS ADOPTED				
TYPE OF CONVEYANCE	CODE AND SUPPLEMENTS	DATE INSTALLED		COMMENTS
		FROM	TO	
Moving Walks	American Standard Safety Code (ASA) A17.1.13, 1962	11/1/1963	12/29/1967	Adopted Standard
Elevators, Dumbwaiters, Escalators, and Moving Walks	U.S.A. Standards USAS A17.1-1965 Supplements A17.1a-1967 A17.1b-1968 A17.1c-1969	12/30/1967	2/24/1972	Adopted Standard USAS 1965 includes revision and consolidation of A17.1-1960, A17.1a-1963, & A17.1.13-1962. Adopted code and supplements, excluding Appendix E & ANSI A17.1-1970.
Elevators, Dumbwaiters, Escalators, and Moving Walks	American National Standards Institute A17.1-1971	2/25/1972	6/30/1982	Adopted Standard as amended and revised through 1971.
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI A17.1-1971; A17.1a-1972	2/25/1972	6/30/1982	Adopted Supplement
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI A17.1-1981	7/1/1982	1/9/1986	Adopted Standard
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI A17.1a-1982	3/1/1984	1/9/1986	Adopted Supplement
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI A17.1b-1983	12/1/1984	1/9/1986	Adopted Supplement, except portable escalators covered by Part VIII A17.1b-1983.
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI A17.1-1984	1/10/1986	12/31/1988	Adopted Standard Except Part XIX. After 11/1/1988 Part II, Rule 211.3b was replaced by WAC 296-81-275.
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI A17.1a-1985	1/10/1986	12/31/1988	Adopted Supplement
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI A17.1b-1985 A17.1c-1986 A17.1d-1986 A17.1e-1987	12/6/1987	12/31/1988	Adopted Supplement
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI A17.1-1987	1/1/1989	12/31/1992	Adopted Standard Except Part XIX and Part II, Rule 211.3b. WAC 296-81-275 replaced Part II, Rule 211.3b.
Elevators, Dumbwaiters, Escalators, and Moving Walks	ASME A17.1-1990	1/1/1993	2/28/1995	Adopted Standard Except Part XIX and Part V, Section 513. Chapter 296-94 WAC replaced Part V, Section 513.
Elevators, Dumbwaiters, Escalators, and Moving Walks	ASME A17.1-1993	3/1/1995	6/30/1998	Adopted Standard Except Part XIX and Part V, Section 513. Chapter 296-94 WAC replaced Part V, Section 513.
Elevators, Dumbwaiters, Escalators, and Moving Walks	ASME A17.1-1996	6/30/1998	6/30/2004	Adopted Standard Except Part V, Section 513.

NATIONAL ELEVATOR CODES AND SUPPLEMENTS ADOPTED				
TYPE OF CONVEYANCE	CODE AND SUPPLEMENTS	DATE INSTALLED		COMMENTS
		FROM	TO	
Elevators, Dumbwaiters, Escalators, and Moving Walks	ASME A17.1-2000 A17.1a-2002 A17.1b-2003	7/1/2004	1/1/2008	Adopted Standards and Addenda Except Rules 2.4.12.2, 8.6.5.8 and Sections 5.4, 7.4, 7.5, 7.6, 7.9, 7.10, 8.10.1.1.3 and 8.11.1.1.
Safety Standards for Platform Lifts and Stairway Chairlifts	ASME A18.1-1999 A18.1a-2001 A18.1b-2001	7/1/2004	1/1/2008	Adopted Standards and Addenda.
Safety Code for Elevators, Escalators, Dumbwaiters, Residential Elevators, Special Purpose	ASME A17.1-2004 A17.1a-2005	1/1/2008	1/1/2014	Adopted Standards and Addenda Except Rules 2.4.7.2, marked car top clearance space, 8.6.5.8, Maintenance of safety bulkhead, 5.4, Private residence incline elevators, 7.4 & 7.5 & 7.9 & 7.10 Material lifts, 8.10.1.1.3 and 8.11.1.1, QEI-1 inspector.
Safety Code for Platform Lifts and Stairway Chairlifts	ASME A18.1-2005	1/1/2008	9/30/2018	
Safety Code for Belt Manlifts	ASME A90.1-2003	1/1/2008	9/30/2018	
Safety Code for Personnel Hoists, Retroactive	ANSI A10.4-2004	1/1/2008	9/30/2018	
Safety Code for Elevators, Escalators, Dumbwaiters, Residential Elevators, Special Purpose	ASME A17.1-2010	1/1/2014	9/30/2018	
Standard for Elevator Suspension, Compensation, and Governor Systems	ASME A17.6-2010	1/1/2014	Current	
Safety Code for Platform Lifts and Stairway Chairlifts	ASME A18.1-2011	1/1/2014	9/30/2018	
Safety Code for Belt Manlifts	ASME A90.1-2009	1/1/2014	9/30/2018	
Safety Code for Personnel Hoists	ANSI A10.4-2007	1/1/2014	9/30/2018	
Safety Code for Elevators, Escalators, Dumbwaiters, Residential Elevators, and Special Purpose	ASME A17.1-2016/CSA B44-16	10/1/2018	((Current)) <u>TBD</u>	
Guide for Inspection of Elevators, Escalators, and Moving Walks	ASME A17.2-2017	10/1/2018	Current	
Safety Code for Existing Elevators and Escalators	ASME A17.3-2015	10/1/2018	Current	
Safety Standards for Platform Lifts and Stairway Chair Lifts	ASME A18.1-2017	10/1/2018	((Current)) <u>TBD</u>	
Safety Code for Belt Manlifts	ASME A90.1-2015	10/1/2018	Current	
Safety ((Code)) <u>Requirements for Personnel Hoists and Employee Elevators on Construction and Demolition Sites</u>	((ASSE/ANSI)) ANSI/ASSP A10.4-2016	10/1/2018	Current	
Safety Code for Material Hoists	ASSE/ANSI A10.5-2013	10/1/2018	((Current)) <u>TBD</u>	
<u>Safety Code for Elevators and Escalators</u>	<u>ASME A17.1-2019/CSA B44-19</u>	<u>TBD</u>	<u>Current</u>	

Commented [CAR(7)]: This date is TBD for now. This will be the effective date of the rules.
Same for dates below.

NATIONAL ELEVATOR CODES AND SUPPLEMENTS ADOPTED				
TYPE OF CONVEYANCE	CODE AND SUPPLEMENTS	DATE INSTALLED		COMMENTS
		FROM	TO	
<u>Safety Standards for Platform Lifts and Stairway Chair Lifts</u>	<u>ASME A18.1-2020</u>	<u>TBD</u>	<u>Current</u>	
<u>Safety Requirements for Material Hoists</u>	<u>ANSI/ASSP A10.5-2020</u>	<u>TBD</u>	<u>Current</u>	

Note: Copies of codes and supplements can be obtained from the following: The American Society of Mechanical Engineers (ASME), Order Department 150 Clove Road, 6th Floor, Little Falls, New Jersey 07424-2138 or by visiting www.asme.org. The American Society of Safety Engineers (ASSE) 1800 East Oakton Street, Des Plaines, IL 60018-2187 or by visiting www.asse.org.

Comments: Codes adopted by this chapter will be identified with the applicable ASME/ANSI code reference number contained within the rules or as excluded or amended in WAC 296-96-00675.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-00650, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-00650, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-00650, filed 11/27/13, effective 1/1/14; WSR 08-23-085, § 296-96-00650, filed 11/18/08, effective 12/19/08; WSR 07-24-041, § 296-96-00650, filed 11/30/07, effective 1/1/08. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185, 70.87.190, 2002 c 98, 2003 c 143 and 2004 c 66. WSR 04-12-047, § 296-96-00650, filed 5/28/04, effective 6/30/04. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-00650, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-00675 Amendments to adopted standards. The following

standards are adopted with amendments:

~~(1) ((Exclude all references to QEI certification in ASME~~

~~A17.1/CSA B44, ASME A18.1, and ANSI/ASSE A10.4 from code adoption.~~

~~(2)) ASME A17.1/CSA B44, all amendments to this standard are as~~

follows:

(a) Section 1.2 Purpose and Exceptions amended as follows: The

purpose of this code is to provide for the safety of life and limb, and to promote the public welfare. Compliance with these rules shall be achieved by:

~~((a))~~ **(i)** Conformance with the requirements in ASME A17.1/CSA

B44 as amended by this chapter; or

~~((b))~~ **(ii)** Conformance with a combination of requirements in

ASME A17.1/CSA B44, this chapter, and ASME A17.7/CSA B44.7 with the following ASME A17.7/CSA B44.7 inclusions:

~~((i))~~ **(A)** All system or component certifications performed by

an Accredited Elevator/Escalator Certification Organization (AECO) under ASME A17.7/CSA B44.7 shall be approved by the department before any such system or component is allowed to be permitted or installed in the state of Washington.

Commented [CAR(8): Adds new clarifying language for the standards L&I is not adopting or amending in rule.

Commented [CAR(9): Relocates the existing language under subsection (1) to a new subsection (3) for formatting to make the rule easier to understand and use. Adds new language to clarify the amendments to ASME A17.1.

Commented [CAR(10): Changes for formatting to make the rule easier to understand and use. Subsection (2) becomes subdivision (1) (a).

Commented [CAR(11): Changes for formatting to make the rule easier to understand and use. Subdivision (a) becomes item (i).

Commented [CAR(12): Changes for formatting to make the rule easier to understand and use. Subdivision (b) becomes item (ii).

Commented [CAR(13): Changes for formatting to make the rule easier to understand and use. Item (i) becomes subitem (A).

~~((ii))~~ (B) The applicant shall provide the certificate of certification for the device or system evaluated by an AECO.

Commented [CAR(14): Changes for formatting to make the rule easier to understand and use. Item (ii) becomes subitem (B).

~~((iii))~~ (C) The department has the final authority regarding acceptance of any item in ASME A17.7/CSA B44.7. The department may remove approval if a design has changed or unforeseen or undisclosed information is obtained.

Commented [CAR(15): Changes for formatting to make the rule easier to understand and use. Item (iii) becomes subitem (C).

~~((iv))~~ (D) The department will post the specific ASME A17.7/CSA B44.7 AECO certificate including exceptions agreed upon. At that time the certificate and exceptions become part of the adopted rule in the state of Washington and not subject to a variance process. The installer shall include the certificate and exceptions and all required information on each conveyance installed utilizing the ASME A17.7/CSA B44.7 method in the Maintenance Control Program documentation.

Commented [CAR(16): Changes for formatting to make the rule easier to understand and use. Item (iv) becomes subitem (D).

~~((v))~~ (E) The department may charge an additional fee for each item in review based upon the variance fee table.

Commented [CAR(17): Changes for formatting to make the rule easier to understand and use. Item (v) becomes subitem (E).

~~((e))~~ (iii) Additions or modifications to adopted standards and/or this chapter shall require approval from the department.

Commented [CAR(18): Changes for formatting to make the rule easier to understand and use. Subdivision (c) becomes item (iii).

~~((3) ASME A17.1/CSA B44.7))~~ (b) Section 5.8, Marine Elevators.

Commented [CAR(19): Changes for formatting to make the rule easier to understand and use. Subsection (3) becomes subdivision (b). Replaces the spelling of the number with the numeral for consistency with the national standards.

This section only applies to elevators installed on board a marine

vessel flying the Washington state flag and under ~~((one hundred))~~ 100 gross metric tons.

~~((4))~~ ~~ASME A17.1/CSA B44,~~ (c) Section 5.11, Wind Turbine

Elevator is not adopted.

~~((5))~~ (d) Section 6.1 as follows:

(i) 6.1.7.1.1 Remote Machine Room. Permanent electric lighting

and at least one duplex receptacle rated at not less than 15 A, 120 V shall be provided in every remote machine room.

The illumination shall be not less than 200 lx (19 fc) at the floor level. The lighting control switch shall be located within easy reach of the access to such rooms and located so that it can be operated without passing over or reaching over any part of the machinery.

(ii) 6.1.7.1.2 Truss Interior. A duplex receptacle rated at not less than 15 A, 120 V and accessibly located shall be provided under the access plates (see ASME A17.1 CSA/B44 6.1.7.3) at the top and bottom landings and in any machine areas located in the incline.

The illumination shall be not less than 200 lx (19 fc) at the floor level. The light and lighting control switch shall be provided under the access plates (see ASME A17.1 CSA/B44 6.1.7.3) at the top and bottom landings and in any machine areas located in the incline.

Commented [CAR(20): Changes for formatting to make the rule easier to understand and use. Subsection (4) becomes subdivision (c).

Commented [CAR(21): Adds new language for changes to ASME A17.1, Section 6.1.

Commented [CAR(22): Adds new language more stringent than the national standard, as recommended by industry stakeholders for safety purposes. ASME A17.1, Section 6.1 does not provide adequate minimum requirements for lighting in these hazardous spaces. The change requires lighting of 200 lx or 19 fc in the machine room for safety of all conveyance equipment. ASME A17.1 standard requires 100 lx or 10 fc.

Commented [CAR(23): Adopts the national code ASME A17.1 without change under item (ii).

Adds new language in the second paragraph that is more stringent than the national standard, as recommended by industry stakeholders for safety purposes. The change requires lighting of 200 lx or 19 fc in the interior of the truss (unseen portion of the escalator) within the escalator equipment for safety of all conveyance equipment. ASME A17.1 standard requires 50 lx or 5 fc for escalators.

The lighting control switch shall be located within easy reach of the access to such spaces and so located that it can be operated without passing over or reaching over any part of the machinery.

(e) Section 8.6 as follows: 8.6.1.4.1(b). The department does not adopt verbiage stating "records may be kept remotely from the site." This is for all conveyance types.

With the exception of those conveyances used in the "grain" industry whose conveyances do not have a secure place to house these records, the records shall be made available at the time of annual inspection.

(f) Periodic tests and inspections. Pursuant to requirements ASME A17.1/CSA B44, 8.6.1.7 and 8.11.1.3, the department adopts ASME A17.1/CSA B44, Appendix N for the frequency of periodic tests. Pursuant to RCW 70.87.120 (2) (a) periodic inspections shall be performed annually.

~~((6) ASME A17.1/CSA B44 requirement 8.11.1.1.2 is not adopted. The department shall be permitted to witness periodic tests when the department deems necessary.~~

(7) ASME A17.1-2016/CSA B44-16,) (g) Escalator cleaning shall be performed at least once annually. It can be performed concurrently with the required Cat I testing. (ASME A17.1, 8.6.8.13 Cleaning).

Commented [CAR(24): This change makes an exception to ASME A17.1, Section 8.6.1.4.1(b) to allow records to be kept remotely from the building site for the grain industry. It is an existing rule requirement for all conveyance records to be kept on-site. The records would need to be provided at the time of annual inspection to ensure public safety.

Commented [CAR(25): Changes for formatting to make the rule easier to understand and use. Subsection (5) becomes subdivision (f). Adds new language to reference the full ASME A17.1/CSA B44 national code, which is the proper reference.

Commented [CAR(26): Relocates this existing language, excluding the first sentence, to new subsection (4) for formatting.

Commented [CAR(27): Creates a new subdivision (g) to require annual cleaning for escalators as required by the national code. The interior of escalators and their components shall be cleaned to prevent an accumulation of oil, grease, lint, dirt, and refuse. The frequency of the cleaning will depend on service and conditions, but an examination to determine if cleaning is necessary shall be required at least once a year." The last sentence leaves the cleaning of the escalator to arbitrary assessment rather than objective necessity. Escalator equipment is high-risk due to its configuration, function and design. It is continuously operating machinery that gets a heavy use by riding public in malls, airports and other high traffic areas. It is crucial that the necessary cleaning and maintenance be mandated by this code.

(h) Section 8.6 is adopted with the following amendments:

(i) 8.6.4.19.6: At least once each year, the fire alarm

initiating devices associated with elevator recall and shunt trip initiating devices shall be tested to ensure they are still properly interfaced with the elevator control. Deficiencies shall be corrected. A record of findings shall be available to elevator personnel and the authority having jurisdiction. This test applies to electric and hydraulic elevators.

(ii) 8.6.1.4.1(c): Provide a record of findings for fire alarm

initiating device testing as required by (1) (h) (i) of this subsection.

(iii) 8.6.11.1 Firefighters' Emergency Operation is amended as

follows: All elevators provided with firefighters' emergency operation shall be subjected quarterly, by authorized personnel, to Phase I recall by use of the keyed switch, and a minimum of one-floor operation on Phase II. Deficiencies shall be reported to and corrected by a licensed elevator mechanic. A record of findings shall be available to elevator personnel and the authority having jurisdiction.

~~((8) Amend ASME A17.1-2016/CSA B44-16, 8.6.4.19.6 as follows:~~

~~At least once each year, the fire alarm initiating devices associated with elevator recall and shunt trip initiating devices shall be tested~~

Commented [CAR(28): Adds a new subdivision (h) to clarify the amendments to the 2019 ASME code adopted in rule.

Commented [CAR(29): Changes for formatting and updates. Relocates existing language from subsection (8).
Modifies the existing language to apply to the 2019 code and incorporates existing language from subsection (7).

Commented [CAR(30): Other records that include firefighters operation testing. This change adds a new requirement that a record of fire alarm initiating device testing to be kept on-site.

Commented [CAR(31): Amends for formatting to replace existing subsection (7) with subdivision (i).
Amends existing language under subsection (7) by replacing the ASME A17.1-2016/CSA B44-16 with the 2019 code. Modifies existing language to clarify that deficiencies must be reported to and corrected by elevator personnel to align with updated code verbiage from ASME A17.1-2019. It has always been an existing requirement for elevator personnel to report and correct deficiencies. This simply clarifies the rule that it must be a licensed elevator mechanic to work on the equipment. (See RCW 70.87.100 and WAC 296-96-00906)

Commented [CAR(32): Removes and relocates language to the new (1) (h) (i) to make the rule easier to use and understand.

~~to ensure they are still properly interfaced with the elevator control.~~

~~This test applies to electric and hydraulic elevators.~~

(9)) (iv) The department will not allow the 8.6.11.10 "Category

5 Tests Without Load Via Alternative Test Methodologies" portion of ASME A17.1 to be followed in Washington. Standard testing as outlined in ASME A17.1 shall be followed.

(i) Section 8.7 is amended as follows: 8.7.1.1 Applicability of

Alteration Requirements.

When any alteration is performed, regardless of any other requirements of Section 8.7, the installation as a minimum shall conform to the following applicable code requirements:

(i) The code at the time of installation;

(ii) The code requirements for the alteration at the time of any alteration; and

(iii) ASME A17.3 if adopted by the authority having jurisdiction for major alterations only. Major alterations are considered to be controller replacements.

(2) ASME A17.3 all amendments to this standard are as follows:

ASME A17.3 ((~~requirement~~)), 3.10.3 is modified as follows: Where the car top stop switch located in the inspection control station is not

Commented [CAR(33): Relocates language from subsection (10). Restructures the rule to make it easier to understand and use.

Commented [CAR(34): This change deviates from the ASME A17.3 code by allowing exceptions for some alterations from full compliance with ASME A17.3. An alteration may only include a change in a door-reopening device, but as written, this would trigger a full application of ASME A17.3 and considerably place the cost of the door-reopening device out of reach by making the building owner bring their elevator up to a newer code that was enforced at the time of original installation. Therefore, by limiting the application of ASME A17.3 to only major modernizations, smaller alterations can still be performed without dealing with ASME A17.3 in its entirety."

Commented [CAR(35): Changes for formatting to make the rule easier to understand and use. Subsection (9) becomes a new subsection (2). Adds new language to clarify the amendments made to adopted standard. No change to existing requirements.

accessible from the landing, a separate car top stop switch shall be provided as required by ASME A17.1/CSA B44, 2.26.1.4.2(a).

~~((10) The department will not allow the 8.6.11.10 "Category 5 Tests Without Load Via Alternative Test Methodologies" portion of ASME A17.1 to be followed in Washington. Standard testing as outlined in ASME A17.1 shall be followed.))~~

(3) Exclude all references to OEI certification in ASME A17.1/CSA B44, ASME A18.1, and ANSI/ASSP A10.4 from code adoption.

(4) All references pertaining to periodic tests, in all adopted standards, the department shall be permitted to witness periodic tests when the department deems necessary.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-00675, filed 8/31/21, effective 10/1/21; WSR 19-15-118, § 296-96-00675, filed 7/23/19, effective 9/1/19; WSR 18-18-070, § 296-96-00675, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

Commented [CAR(36): Relocates language from subsection (10) to new (1)(j).

Commented [CAR(37): Relocates language from subsection (1).

Commented [CAR(38): Relocates existing language from subsection (6). Modifies existing language for additional clarification and by removing the reference to the specific ASME code to apply to all standards. This change coincides with current rule reference excluding the Elevator Program from ASME A17.1 references to periodic tests being witnessed, when it is regarding all adopted codes referenced.

WAC 296-96-00700 Chapter definitions. The following definitions

Commented [CAR(39): Adds subsection numbers to the definitions for formatting and easier referencing.

apply to this chapter (see RCW 70.87.010 and ASME A17.1/CSA B44 for additional definitions necessary for use with this chapter):

(1) **"ANSI"** means the American National Standard Institute.

(2) **"ASA"** means the American Safety Association.

(3) **"ASME"** means the American Society of Mechanical Engineers.

(4) **"Acceptable proof"** refers to the documentation that is required to be provided to the department during the elevator contractor and mechanic license application and renewal process.

(5) **"Alteration"** means an intended change to the original design of elevator equipment.

(6) **"Authority having jurisdiction (AHJ)"** means the organization, office, or individual responsible for enforcement of this code. Where compliance with this code has been mandated by legislation or regulation, the "authority having jurisdiction" is the regulatory authority.

Commented [CAR(40): Adds a new definition for "AHJ" to align with the ASME A17.1 code and to clarify the term used throughout the chapter.

(7) **"Code"** refers to nationally recognized codes (i.e., ASME, ANSI, ICC, and NFPA) and the Washington Administrative Code.

(8) **"Conveyance work"** means the alteration, construction, dismantling, erection, installation, maintenance, relocation, and

Commented [CAR(41): Adds a new definition for "conveyance work" from the elevator statute with modifications that interpret where elevator work begins.
Refer to RCW 70.87.010.

wiring of a conveyance, the first piece of elevator controller equipment designated by the elevator contractor.

(9) "Construction personnel hoist (CPH)" refers to equipment installed inside or outside buildings or structures during construction, alteration, demolition or operations and are used to raise and lower workers and other personnel connected with or related to the structure. These personnel hoists are exclusively covered in ANSI/ASSP A10.4.

Commented [CAR(42): Adds a new definition for "construction personnel hoist (CPH)". Clarifies the term from the already adopted national standard ANSI/ASSP A10.4, in rule.

(10) "Controller" shall include, but not be limited to:

(a) A device or group of devices that serves to control in a predetermined manner the apparatus to which it is connected.

(b) Controller, motion: An operative unit comprising a device or group of devices for actuating the moving member.

(c) Controller, motor: The operative units of a motion control system comprising the starter devices and/or power conversion equipment required to drive an electric motor.

(d) Controller, operation: An operative unit comprising a device or group of devices for actuating the motion control.

Commented [CAR(43): Adds a new definition for "controller" to clarify the controller is elevator work. This definition is incorporated from the already adopted ASME A17.1 code.

(11) "Decommissioning conveyance" means a group of tasks that are to be accomplished in order to place the conveyance in a long-term out-of-service status.

(12) **"Examination"** means a routine process or procedural task(s) or test(s) that ensures a conveyance and its systems and subsystems remain properly maintained and safe to operate.

(13) **"Final judgment"** means any money that is owed the department as the result of an individual's or firm's unsuccessful appeal or failure to appeal a civil penalty.

~~(("Form, fit, and function" means specific characteristics of a device (such as a component or assembly) that enable direct substitution of the device for a similar device without adversely affecting the operation or safety of the overall equipment. Factors to be considered with respect to form, fit, and function include, but are not always limited to: The ability of the device to be connected in place of the original; having similar size, shape and appearance; ability to perform the same function as the original device; and having ratings equal to or greater than the original device.))~~

Commented [CAR(44): Removes the definition of "form, fit, and function", as it is confusing stakeholders and is taking away from the definition of alteration work. It is also a manufacturing term that is not meant for the elevator industry and is inconsistent with the application of the standard.

This will remove the ability for misinterpretation of code-required alterations.

(14) **"General direction - Installation and alteration work"** means the necessary education, assistance, and supervision provided by a licensed elevator mechanic (in the appropriate license category) who is on the same job site as the helper/apprentice.

(15) **"General direction - Maintenance work"** means the necessary education, assistance, and supervision provided by a licensed elevator

mechanic (in the appropriate license category) to ensure that the maintenance work is performed safely and to code.

(16) **"Layout drawings"** or **"plans"** or **"shop drawings"** means elevation and plan view drawings that show required clearances and dimensions of elevator equipment in relation to building structure and other elevator equipment.

(17) **"Layout drawings, engineering"** means structural drawings verified and stamped by a professional engineer registered in the state of Washington.

(18) **"Lockout/tagout"** means the placement of a lockout device on an energy isolating device.

(19) **"Machine room less (MRL elevator)"** means there is not a machine room that contains the actual controls and lifting machine for electric traction elevators, or the actual controls and pumping machine/tank for hydraulic elevators. These are located inside the hoistway or pit.

(20) **"Machine room"** means machine room and control room, remote, elevator, dumbwaiter, material lift: A machine room or control room that is not attached to the outside perimeter or surface of the walls, ceiling, or floor of the hoistway.

Commented [CAR(45): Adds a new definition to clarify the term of "MRL". The code does not clearly define this term. A definition will help to eliminate confusion and clarify that MRL's are allowed in Washington State. These are code compliant conveyances. The definition was developed based on industry standards.

Commented [CAR(46): Adds a new definition for "machine room" to clarify the term from the already adopted ASME A17.1 code.

(21) **"Primary point of contact"** is the designated individual employed by a licensed elevator contractor.

(22) **"Private residence elevator"** means a power passenger elevator which is installed in a private residence or multiple dwelling as a means of access to a single private residence.

(23) **"Red tag"** or **"red tag status"** means an elevator or other conveyance that has been removed from service and operation because of noncompliance with chapter 70.87 RCW and this chapter or at the request of the owner.

(24) **"Repair"** means a procedure used to restore a device or system to its original design parameters without supplying a complete new component or device.

(25) **"Replacement"** means the complete replacement of a device or component that has the same "form, fit, and function" as the original but is not intended as a change in design.

(26) **"RCW"** means the Revised Code of Washington.

~~((**"Standard application material lift"** means a lift used strictly for freight transport and is in compliance with this chapter, Part C1. (Note: These are not to be confused with Type A and Type B material lifts covered in ASME A17.1/CSA B44, Part 7).))~~

Commented [CAR(47): Repeals the definition, as "standard application material lift" (SAML) is being replaced with "WAC material lifts" throughout the chapter. The purpose is to better understand and illustrate that these particular material lifts, are installed and maintained to this standard in the rules. As well as, the term "standard" is misleading, as these are not standard but are built to the rules housed within WAC Part C1. A new definition under this section is proposed for WAC Material Lift.

(27) **"Traction elevator"** means an elevator in which the friction between the hoist ropes and the drive machine sheave is used to move the elevator car.

(28) **"USAS"** means the U.S.A. Standards.

(29) **"Vertical reciprocating conveyors (VRC)"** means B20.1 lifts which are designed by way of reciprocating power or gravity actuated unit (not designed to carry passengers or an operator) to raise and lower objects on a carrier and transmits them between two or more levels. VRC's are mounted in a stationary position. The equipment may perform a stand-alone function. These conveyances that are manufactured to ASME/ANSI B20.1 standard are not permitted in the state of Washington.

(30) **"WAC"** means the Washington Administrative Code.

(31) **"WAC material lift"** means a lift used strictly for freight transport and is in compliance with this chapter, Part C1. (Note: These are not to be confused with Type A and Type B material lifts covered in ASME A17.1/CSA B44, Part 7).

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-00700, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-00700, filed 11/27/13, effective 1/1/14; WSR 07-24-041, § 296-96-00700, filed 11/30/07, effective 1/1/08. Statutory Authority: RCW

Commented [CAR(48): Adds a new definition for "vertical reciprocating conveyors" to define this equipment. This equipment is not allowed in Washington State because we do not adopt ANSI/ASSP B20.1 standard. Adding this new definition will clarify the meaning. Definition is from the B20.1 standard.

Commented [CAR(49): Adds a new definition to define "WAC material lifts", which is replacing the term "standard application material lifts" throughout the chapter. The purpose is to better understand and illustrate that these particular material lifts, are installed and maintained to this standard in the rules. As well as, the term "standard" is misleading, as this equipment is not "standard" but are built to the rules housed within WAC Part C1.

70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185, 70.87.190, 2002 c 98, 2003 c 143 and 2004 c 66. WSR 04-12-047, § 296-96-00700, filed 5/28/04, effective 6/30/04. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-00700, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-00904 License requirements for elevator contractors.

(1) Any sole proprietor, firm or corporation wishing to engage in the business of installation, alteration, service, replacement of maintenance of equipment covered by this chapter within the state of Washington shall apply for a license with the department of labor and industries.

The entities above shall obtain and maintain a valid specialty or general contractor registration under chapter 18.27 RCW to engage in the business of conveyance work.

(2) The potential licensee shall complete and submit a department-approved application. As part of the application the following shall be provided:

(a) The employee who is the licensed elevator contractor's primary point of contact.

(b) The number of years the applicant has been engaged in the business of installing, constructing, altering, replacing, maintaining, removing, dismantling and/or servicing conveyances.

(c) Documentation that at least one licensed elevator mechanic is employed by the applicant.

(3) The person representing the company, firm or corporation who is applying for the elevator contractor's license shall be considered the company's primary point of contact and shall:

(a) Provide acceptable proof to the department that shows that the person representing the company, firm, or corporation has five years of work experience in performing conveyance work as verified by current and previous state of Washington elevator licenses; or

(b) Pass a written examination administered by the department on chapter 70.87 RCW and this chapter with a minimum score of ~~((seventy))~~ 70 percent.

(c) Failure to pass the examination will require the submittal of a new application.

(4) Pay the fees specified in WAC 296-96-00922.

Commented [CAR(50): Replaces the spelling of the number with the numeral for consistency with the national standards.

(5) The department may deny application or renewal of a license under this section if the applicant owes outstanding final judgments to the department.

(6) If the primary point of contact identified in subsection (2) (a) of this section separates employment, his/her relationship or designation is terminated, or death of the designated individual occurs, the elevator contractor shall, within ~~((ninety))~~ 90 days, designate a new individual who has met the requirement noted above to serve as the elevator contractor's primary point of contact. The elevator contractor shall inform the department of the change in writing or the contractor's license will be automatically suspended.

Commented [CAR(51): Replaces the spelling of the number with the numeral for formatting.

(7) Where unique or product-specific procedures or methods are required to inspect or test equipment, such procedures, or methods shall be:

(a) Provided in the maintenance control program.

(b) Provided by the manufacturer or installer or their license may be suspended.

(c) Available to owners for their use or used by their qualified service provider.

(d) Accessible on-site to elevator personnel (see also ASME ~~((A17.1-8.6.1.2.1(f)))~~ A17.1/CSA B44-8.6.1.2.2).

Commented [CAR(52): Changes to reference the correct code.

(e) Where special tools or devices are necessary for maintenance and testing of conveyances, they shall remain on-site for the life of the conveyance.

(8) Contractor licenses may be revoked for failure to comply with this subsection.

Legal maintenance contracts notwithstanding, all elevator companies and other approved maintenance providers (see RCW 70.87.270) who continuously demonstrate noncompliance with the maintenance, examination, testing, documentation, and performance of work outlined in ASME A17.1/CSA B44 and this chapter shall:

(a) Be notified in writing by the department outlining the reason or reasons for noncompliance;

(b) Respond to the department inquiry within ~~((fifteen))~~ 15 days;

(c) Outline a solution(s) agreeable to the department within ~~((thirty))~~ 30 days;

(i) Otherwise the elevator company's license may be suspended until such a time as they can demonstrate compliance; and

(ii) Other approved maintenance providers shall cease maintenance, examination, and testing until such a time as they can demonstrate compliance. Continuous demonstrations of maintenance,

Commented [CAR(53): Replaces the spelling of the number with the numeral for formatting.

Commented [CAR(54): Replaces the spelling of the number with the numeral for formatting.

examination, and testing noncompliance shall result in approval being revoked.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-00904, filed 8/31/21, effective 10/1/21; WSR 18-18-068, § 296-96-00904, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-00904, filed 11/27/13, effective 1/1/14; WSR 07-24-041, § 296-96-00904, filed 11/30/07, effective 1/1/08. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185, 70.87.190, 2002 c 98, 2003 c 143 and 2004 c 66. WSR 04-12-047, § 296-96-00904, filed 5/28/04, effective 6/30/04.]

NEW SECTION

WAC 296-96-00905 Primary point of contact. (1) Duties of the

primary point of contact are as follows:

(a) Enrolling in the department of labor and industries elevator program distribution email system via website;

(b) Ensuring the primary point of contact information is updated and correct. This ensures you may be reached during regular working hours regarding:

(i) Actions of the company and/or mechanics;

Commented [CAR(55): Establishes new requirements that outline the duties and responsibilities of the elevator Primary Point of Contact (POC) for accountability.
Refer to RCW 70.87.125.

(ii) Company licensing renewal; and

(iii) Unpaid invoices prior to relicensing.

(c) Staying informed and up to date on RCW, WAC, codes, policies, and technical clarifications adopted and used by the state. This includes WAC 296-96-01010 Installation and alteration permit fees and their methods of calculation;

(d) Attending virtually or in person elevator safety advisory committee meetings held once each quarter.

(i) If the primary point of contact is not able to attend, they shall assign an alternate in their place. The alternate shall adhere to the same communication standards in (e) of this subsection.

(ii) If the primary point of contact or their alternate is not present at more than two of any four sequential elevator safety advisory committee meetings, the contractor will have 90 days to apply for new primary point of contact.

(iii) If multiple licenses are held by the same company, only one primary point of contact of that company is required to attend.

(e) Disseminating information to impacted employees of contractor received from:

(i) Elevator safety advisory committee meetings; and

(ii) Communications received via department of labor and industries elevator program distribution email system.

(f) Signing and certifying the Temporary Mechanic License form as the company representative.

(2) If the elevator program finds one or more of these requirements are not being fulfilled, the program may ask the contractor to start the process for a new primary point of contact.

[]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-00910 Elevator mechanic license categories. The following are the licensing categories for qualified elevator mechanics or temporary elevator mechanics:

(1) **Category (01):** A general elevator mechanic license encompasses the installation, alteration, maintenance, inspection, relocation, decommission, removal, and repair of all types of elevators and other conveyances in any location covered under chapter 70.87 RCW and this chapter.

(2) **Category (02):** This license is limited to the installation, alteration, maintenance, inspection, relocation, decommission, removal, and repair of the following commercial and residential conveyances:

(a) Residential conveyances:

- (i) Wheelchair lifts*;
- (ii) Dumbwaiters;
- (iii) Incline chairlifts*; and
- (iv) Residential elevators.

*License is not required to remove these.

(b) Commercial conveyances:

- (i) Wheelchair lifts;
- (ii) Dumbwaiters;
- (iii) Incline chairlifts; and
- (iv) LULA elevators.

(3) **Category (03):** This license is limited to the installation, alteration, maintenance, inspection, relocation, decommission, removal, and repair of the following conveyances in industrial sites and grain terminals:

- (a) Electric and hand-powered manlifts;
- (b) Special purpose elevators; and

(c) Belt manlifts.

(4) **Category (04):** This license is limited to the installation, alteration, maintenance, inspection, relocation, decommission, removal, and repair of the following conveyances:

(a) Temporary personnel hoists; and

(b) Temporary material hoists (~~and~~

~~(c) Special purpose elevators).~~

(5) **Category (05):** This license is limited to the installation, alteration, maintenance, inspection, relocation, decommission, removal, and repair of material lifts.

(6) **Category (06):**

(a) This license is limited to the installation, alteration, maintenance, inspection, relocation, decommission, and repair of the following conveyances:

(i) Residential wheelchair lifts;

(ii) Residential dumbwaiters; and

(iii) Residential incline chairlifts.

(b) Work experience on conveyances in (a)(i), (ii), and (iii) of this subsection may not be all inclusively applied toward the category (02) license requirements.

Note: Maintenance work performed by the owner or at the direction of the owner is exempted from licensing requirements if the owner resides in the residence at which the conveyance is located and the conveyance is not accessible to the public. Such exempt work does not count toward work

Commented [CAR(56): Removes "special purpose personnel elevators (SPPE)", as currently hours allotted to attain a Cat 04 license does not cover the education requirements needed for special purpose elevators covered in ASME A17.1 5.7, and maintenance requirements from 8.6., and requirements in 8.11. Currently the only other category license allowed to work on SPPE conveyances is category 3, and their education requirement for hours is 270. Which is what category 04 was as well until 2018, and was lowered to 80. So equivalency is not the same on the education requirements, compared to the type of work being done on the conveyances. Without the documented education of the 17.1 areas needed for SPPE, this is being removed.

experience for licensure.

(7) **Category (07)**: This license is limited to the installation, alteration, maintenance, inspection, relocation, decommission, and repair of residential inclined elevators.

Note: Maintenance work performed by the owner or at the direction of the owner is exempted from licensing requirements if the owner resides in the residence at which the conveyance is located and the conveyance is not accessible to the public. Such exempt work does not count toward work experience for licensure.

(8) **Category (08)**: This license is limited to maintenance and nonalteration repair and replacement of all conveyances and is further limited to employees of public agencies to obtain and maintain the license. This work should not count towards other licenses.

(9) **Category (09)**: A temporary license is limited to the installation, alteration, maintenance, inspection, relocation, decommission, removal, and repair of conveyances in the category for which the license is sought. The license shall be issued pursuant to the conditions of RCW 70.87.250.

(10) **Category (10)**: An emergency license is limited to the installation, alteration, maintenance, inspection, relocation, decommission, removal, and repair of conveyances by elevator mechanics that are certified by an elevator contractor to have an acceptable combination of documented experience and education to perform elevator work without direct and immediate supervision and is further limited for use during a state of emergency.

(11) **Endorsements:** The program AHJ may provide the ability for

category licenses to apply for an endorsement. The endorsement will give the recipient the ability to do additional work on different conveyances outside of their category license they already possess. There may be an additional fee, and shall require additional education requirements for this endorsement.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-00910, filed 8/31/21, effective 10/1/21; WSR 18-18-068, § 296-96-00910, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-00910, filed 11/27/13, effective 1/1/14; WSR 07-24-041, § 296-96-00910, filed 11/30/07, effective 1/1/08. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185, 70.87.190, 2002 c 98, 2003 c 143 and 2004 c 66. WSR 04-12-047, § 296-96-00910, filed 5/28/04, effective 6/30/04.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-01000 Permits for new construction and alterations.

(1) Prior to construction, alteration, or relocation of any conveyance, the licensed elevator contractor shall:

Commented [CAR(57): Adds a new subsection to allow for licensing endorsements. The purpose is to allow current cat 04 mechanics who choose to work on 5.7 special purpose elevators to attain the ability to work on those conveyances and for all licensing categories to do other work.

(a) Submit an installation application to the department. See WAC 296-96-01010 through 296-96-01025.

(b) Submit plans to the department for approval. See WAC 296-96-01030.

EXCEPTION: Most alterations will not require plans.

(c) Post an approved installation or alteration permit along with any approved plans issued by the department on the job site.

(i) The annual operating certificate is considered suspended once alteration work begins.

(ii) The certificate shall not be reinstated until the alteration work is approved by an inspector employed by the department.

(2) Prior to placing a conveyance in service the licensed elevator contractor shall obtain and pass an inspection or receive written permission from the department.

(3) Failure to comply with subsections (1) and (2) of this section is a violation of this chapter and may result in civil penalties (WAC 296-96-01070 (1)(a) through (d)).

(4) The owner shall obtain and renew an annual operating certificate for each conveyance that they own, except for residential conveyances. See WAC 296-96-01065.

(5) After initial purchase and inspection, private residence conveyance(s) do not require an annual operating certificate. However, annual inspections may be conducted upon request. See WAC 296-96-01045 for the permit process.

(6) For purposes of this rule, permits are not required for "repairs" (see ASME A17.1/CSA B44, Section 8.6.2). Permits are not required when replacing devices that are identical to the original device ~~((or have the same "form, fit, and function"))~~ (see WAC 296-96-00700) (see also ASME A17.1/CSA B44, Section 8.6.3).

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-01000, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-01000, filed 11/27/13, effective 1/1/14; WSR 07-24-041, § 296-96-01000, filed 11/30/07, effective 1/1/08. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185, 70.87.190, 2002 c 98, 2003 c 143 and 2004 c 66. WSR 04-12-047, § 296-96-01000, filed 5/28/04, effective 6/30/04. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-01000, filed 12/22/00, effective 1/22/01.]

Commented [CAR(58): Changes to remove the term "Form, fit, and function" throughout the rules. This is a manufacturing term, and not something used for finished construction that the public uses. This will also better align with what an alteration is per adopted codes/standards.

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-02400 Requests for acceptance inspections. (1) The

person or firm installing, relocating, or altering a conveyance shall notify the department in writing, at least seven days before requesting any inspection of the work, and shall subject the new, moved, or altered portions of the conveyance to the acceptance tests.

(a) If the scheduled acceptance inspection is not ready, the contractor must cancel the inspection in writing the preceding business day with the scheduled inspector, or a reinspection fee may be charged.

Commented [CAR(59): Adds a new requirement that Elevator Contractors must cancel scheduled inspections in writing the preceding business day, if the equipment is not ready for inspection or a reinspection fee may apply. This reflects the existing practices of the Elevator Program.

(b) If the inspector is not able to make the scheduled inspection, they must communicate with the elevator contractor in writing the preceding business day.

Commented [CAR(60): This change adopts the existing practices of the elevator Program. If a department inspector is unable to make a scheduled inspection, they must notify the elevator contractor in writing the preceding business day.

(2) The department may grant exceptions to this notice requirement.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-02400, filed 8/31/18, effective 10/1/18; WSR 07-24-041, § 296-96-02400, filed 11/30/07, effective 1/1/08.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-02421 Layout plans. A set of legible layout/plans shall be submitted to the department. In addition to the layout criteria in ASME A17.1/CSA B44 these shall include the following:

(1) A machine/control room plan view drawing identifying room dimensions, location of drive machine, motor controller, mainline disconnect, light switch, and door swing;

(2) A hoistway plan view identifying hoistway and conveyance equipment dimensions and clearances, foot print of car enclosure showing doors and inside net dimensions, location and dimensions of hoistway, and car door or gates;

(3) A hoistway elevation view identifying elevation of the hoistway and conveyance equipment dimensions and clearances, the location of the pit ladder, pit light, light switch, pit stop switch, and top and bottom vertical car clearances. The height to the maintainable equipment at the top of the hoistway from the horizontal plane of the top of the car with the car positioned at the top landing shall be indicated on the hoistway elevation plans; ((and))

(4) Detail drawings identifying specific details of conveyance components: Rail bracket fastening, sill support and fastening, machine beams, entrance assembly detail, and additional seismic

Commented [CAR(61): Removes the word "and" for formatting and punctuation, as new subsections are added following this subsection.

requirements (see ASME A17.1/CSA B44, Section 8.4 or 8.5 as applicable);

(5) General conveyance data to include:

(a) Conveyance type (e.g., electric, hydraulic, platform lift, etc.);

(b) Rated capacity;

(c) Building designation (e.g., Elev. #1, Car #2, etc.);

(d) Rated speed;

(e) Car enclosure (construction material);

(f) Standoff panels (if applicable) (submit test data to ASTM E 84 if applicable);

(g) Door type and manufacturer (single speed, two-speed, center opening, RH/LH opening);

(h) Car and hall fixture detail;

(i) Finish floor (tile, carpet) (submit test data to ASTM E 648 if applicable);

(j) Power unit/drive motor (manufacturer and HP);

(k) Equipment heat generation (BTU) (items (l) through (p) are applicable only to hydraulic elevators);

(l) Jack assembly manufacturer;

(m) Plunger O.D. (if telescoping O.D. of each section);

(n) Plunger wall thickness;

(o) Cylinder O.D.;

(p) Cylinder wall thickness (items (q) through (u) are applicable to roped-hydraulic and/or electric elevators);

(q) Size and number of suspension means;

(r) Roping type (1:1, 2:1, underslung);

(s) Governor location;

(t) Governor rope size and type;

(u) Safety manufacturer and type;

(v) Emergency brake manufacturer and type;

(w) Car buffer type and stroke;

(x) CWT buffer type, impact, and stroke; and

(y) Designed top/bottom runby.

(6) Additional plan views for machine-room-less machine

room/machine space, control room/control space as outlined in the ASME A17.1 Appendix Q (see Table Q-1 and Figures Q-1 through Q-6.). These details shall show applicable working clearances for both mechanical and electrical clearances.

(a) Additional ADA compliant clearances shall be noted on the submitted plan views, such as roll-by distances in hallways and lobbies.

Commented [CAR(62): Adds new language, due to the complexities of new Machine Room Less (MRL) and Hydraulic Machine Room Less (HMRL) equipment having unique locations for controls and machines. The additional information is required to perform the code review on the submitted plans. This is a new requirement that they provide this documentation to ensure compliance with ADA code for clearances. ASME A17.1, Section 9.1 (ICC/ANSI A17.1).

Commented [CAR(63): Same comment as above under subsection (6). New requirement they provide this documentation to ensure compliance with ADA code for clearances. ASME A17.1, Section 9.1 (ICC/ANSI A17.1)

(b) Storage for required barricades shall be noted on plan views.

(c) Location for fire extinguishers adjacent to hoistway

entrances and rooms that provide access to elevator equipment shall be noted.

(7) The installation of a conveyance shall not begin until an approved set of plans and permit has been issued by the department.

~~((7))~~ (8) The stamped approved plans and permit shall be posted on the job site during the installation and up to the time the conveyance has passed an acceptance inspection.

~~((8))~~ (9) Where structural elements are part of any installation, relocation, or alteration, the plans shall be reviewed and stamped by a professional engineer, registered in the state of Washington.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-02421, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-02421, filed 11/27/13, effective 1/1/14.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

Commented [CAR(64): This change would require persons to note the storage location on plan views for machine-room less elevators. Existing code requires that barricades are to be on site. This requirement will let persons know what to expect for plan reviews. (See NFPA 70, NEC 110.26 A & B)

Commented [CAR(65): Same comment as above under subsection (6). Clarifies the existing code that fire extinguishers must be adjacent to the hoistway entrances and rooms that provide access to elevator equipment for new MRL equipment. (See ASME A17.1/CSA B-44, Section 8.6.1.6.5)

Commented [CAR(66): Changes the number of the subsection for formatting to allow for new subsections.

Commented [CAR(67): Changes the number of the subsection for formatting to allow for new subsections.

Commented [CAR(68): Changes the number of the subsection for formatting to allow for new subsections.

WAC 296-96-02452 Access to machines, overhead sheaves, shackles, and hitch supports. When the machine space is provided inside the hoistway, maintainable items on the machine, overhead sheaves, shackles, and hitch supports shall not be located more than 1981.2 mm (78 in.) from the horizontal plane of the car top.

Commented [CAR(69): Changes to update measurement conversion to coincide with the national standard.

Measurement shall be taken with the car on or below the top directional limit.

Commented [CAR(70): Adds new language to provide detailed instruction on locating a reference point in the hoistway for taking measurements. Clarifies how and where persons need to measure from, since it is not explicitly stated in the code (ASME A17.1).

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-02452, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-02452, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-02452, filed 11/27/13, effective 1/1/14.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-02460 Location. (1) The main line disconnect(s) shall be located per NFPA 70, Article 620.51(c) and:

(a) Inside the machine room door on the strike side of the machine or control room door;

(b) Not more than 609.6 mm (24 in.) from the door to the operating handle; and

Commented [CAR(71): Changes to update measurement conversion to coincide with the national standard.

(c) Be at a height not less than 914.4 mm (36 in.) nor more than 1676.4 mm (66 in.) above the finish floor as measured centerline to the disconnect handle.

Commented [CAR(72): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(73): Changes to update measurement conversion to coincide with the national standard.

(2) For multicar machine rooms the switches shall be grouped together as close as possible to that location.

(3) For machine rooms with double swing doors, the doors shall swing out and the switch(es) shall be located on the wall adjacent to the hinge side of the active door panel.

(4) Shunt-trip breakers, where provided, shall be located in the elevator machine room or control room.

(5) Where shunt-trip breakers are also being used as a main line disconnect, they shall comply with subsections (1) through (3) of this section.

EXCEPTION: Special purpose, residential elevators, and residential inclined elevators are exempt from this section. For LULAs, the main disconnect and car light disconnect shall be located adjacent to the controller when not located in a dedicated machine room. When a machine room is provided it shall comply with this section.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-02460, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-02460, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-02460, filed 11/27/13, effective 1/1/14; WSR 07-24-041, § 296-96-02460, filed 11/30/07, effective 1/1/08.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-02465 Machine rooms, control rooms, and control

spaces. (1) The lighting control switch shall be located inside the machine room or control room within 609.6 mm (24 in.) of the lock jamb side of the access door.

Commented [CAR(74): Changes to update measurement conversion to coincide with the national standard.

For machine rooms and control rooms with double swing doors, the doors shall swing out and the switch(es) shall be located on the wall adjacent to the hinge side of the active door panel.

(2) Elevator machine room, control room, and control space access doors shall be provided with a sign that reads "Elevator Equipment Room/Authorized Personnel Only! Storage of equipment not pertaining to the elevator is prohibited." The sign shall be located approximately 1524 mm (60 in.) above floor level. Lettering shall not be less than 9.525 mm (0.375 in.) in height and shall contrast with the background.

Commented [CAR(75): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(76): Changes to update measurement conversion to coincide with the national standard.

Where double doors are provided, the sign is only required to be provided on the active door panel.

EXCEPTION: Residential conveyances, LULAs and special purpose elevators are exempted from these requirements.

(3) The temperature and humidity shall comply with ASME A17.1/CSA B44. Where no manufacturer's temperature range is available, the room or space shall be kept between 13°C (55°F) and 38°C (100°F).

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-02465, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-02465, filed 8/31/18, effective 10/1/18; WSR 07-24-041, § 296-96-02465, filed 11/30/07, effective 1/1/08.]

NEW SECTION

WAC 296-96-02487 State requirements for sprinklers and shunt trips for hydraulic elevators in buildings. Hydraulic elevators are required to have sprinklers in pits, machine rooms, control rooms, control spaces, machine spaces, and control cabinets. There shall be automatic elevator recall prior to shunt trip operation as established in the ASME A17.1 Elevator Code and unabridged NFPA 13 and 72.

[]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

Commented [CAR(77): Adds a new section. This change follows the national consensus codes that require buildings equipped with sprinklers to have them in hydraulic elevator equipment areas.

Code Reference: NFPA 13 (sprinkler code) and NFPA 72 (fire alarm code), as referenced in ASME A17.1/CSA B44 codes.

WAC 296-96-02530 Handrails. Handrails are not required. Where handrails are provided in elevator cars, they shall comply with the following:

(1) Be securely attached to the wall;

(2) Be located at a height between 812.8 mm (32 in.) and 965.2 mm (38 in.) from the top of the handrail to the floor; and

(3) Be constructed with smooth surfaces and no sharp corners; and

(4) Be configured ~~((with a gripping surface))~~ as required by

ANSI/ICC A117.1 for handrails.

Exception: Residential conveyances are excluded from this requirement.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-02530, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-02530, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-02530, filed 11/27/13, effective 1/1/14; WSR 07-24-041, § 296-96-02530, filed 11/30/07, effective 1/1/08.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

Commented [CAR(78): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(79): Removes language for clarity of the entire handrail requirement spelled out in the ANSI/ICC A117.1 for Handrails.

WAC 296-96-02580 Inspection keys. (1) All keys necessary for the operation and maintenance of the elevator(s) shall be provided and kept on-site in a key retainer box.

(2) The key retainer box shall be:

(a) Located in the elevator lobby at the designated level above the hall buttons or located by the machine room door at a height not more than 1828.8 mm (72 in.) above the floor. Access to the key box shall not require passage through locked doors;

Commented [CAR(80): Changes to update measurement conversion to coincide with the national standard.

(b) Readily accessible to inspection personnel;

(c) Clearly labeled "ELEVATOR;"

(d) Securely mounted;

(e) Equipped with a ~~((1-inch))~~ 25.4 mm (1 in.) mortise cylinder cam lock with keyway set to a #39504 barrel type key;

Commented [CAR(81): Changes to update measurement conversion to coincide with the national standard.

(f) Keys for access to the elevator machine rooms and for operating elevator equipment shall be labeled as to their function and kept in the key box;

(g) Mechanical hoistway access devices shall be located in the key box. Where the key cannot fit into the key box, it may be located in the machine/control room;

(h) Where the box cannot be located as indicated in (a) of this subsection, it shall be permitted to be in an unsecured location (such

as the outside portion of a condominium). Other arrangements shall be accommodated with the written permission of the department;

(i) No persons except the building owner and inspectors shall have access to the key box; and

(j) All other keys kept elsewhere on-site shall be segregated into groups and secured as required by ASME A17.1/CSA B44, Section 8.1.

Exceptions: The cities of Seattle and Spokane may designate their own options for keys and lockbox arrangement via their rule processes. Residential elevators are exempt from this section.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-02580, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-02580, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-02580, filed 11/27/13, effective 1/1/14; WSR 07-24-041, § 296-96-02580, filed 11/30/07, effective 1/1/08.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-02605 (~~(Private residence)~~) Inclined stairway chairlifts. (1) (~~(Battery operated)~~) Private residence, battery operated inclined stairway chairlifts are not required to be (~~(permanently wired or installed on)~~) supplied by an individual branch

Commented [CAR(82): Change to clarify these requirements no longer apply only for private residences, but also for commercial. ASME A18.1

Commented [CAR(83): Changes to clarify what is allowed for battery operated inclined stairway chairlifts and the way they can be disconnected from power. The design of inclined stairway chairlifts at times involve a cord-and-plug to supply power to a battery charger and then the batteries supply power to the inclined stairway chairlift. If the cord-and-plug is removed from the outlet, the only control of hazardous energy is the ungrounded main power supply conductors to the charger. A hazard to affected persons remains from ungrounded main power supply conductors from the batteries to the inclined stairway chairlift. An inclined stairway chairlift is under the scope of ASME 17.1, Section 9.1. NFPA 70, Article 620.1 and thus Article 620.52 is applicable and adequately addresses the hazards precipitating from power from more than one source. Additionally, although not within our enforcement scope this provides compliance with the State of Washington's Occupational Safety and Health regulation 29 CFR 1910.147.

Relocates language from subsection (1) of this section to new subdivision (b)

circuit (~~(as required by)~~) in order to comply with NFPA 70 620.51 (A) Exception 2. ((These conveyances shall be permitted to use a cord and plug that will act as the equipment disconnecting means.)) The cord and plug is permitted by the disconnecting means from the outlet to the unit's batteries. A second disconnect shall be provided on the unit and shall comply with the following:

(a) The disconnecting means shall be lockable in the open position.

(b) The disconnecting means shall open all ungrounded main power supply conductors for the motor.

The circuit, which is used for the equipment, shall have overcurrent protection that will protect the circuit and the equipment. The circuit shall have sufficient capacity to support the additional load of the stairway chairlift. Units that are operated by line voltage shall comply with ~~((NEC))~~ NFPA 70, 620.51 (A) Exception 2.

(2) ~~((Governor overspeed safety testing shall be verified by manufacturer's documentation (see A18.1 Requirement 9.9.3). Safeties shall be manually tripped at rated speed with no load on the chair (see A18.1 Section 10.4).))~~ Commercial, battery operated, inclined

Commented [CAR(84): Adds new language to clarify the disconnecting means is lockable in the open position (open means to turn it off and disconnect the power) for residential stairway chairlifts. Clarifies the existing code.

Commented [CAR(85): Adds new language to clarify that the disconnecting means does stop the conveyance from moving for residential chair lifts. Clarifies the existing code. The change is necessary because the NEC does not address the issue of disconnecting battery power. (ASME A17.1, Section 9.1) (See NFPA 70, 620.51)

Relocates language from subsection (1) of this section with additional modifications to correct the code reference from NEC to NFPA.

Commented [CAR(86): Relocates language to new subsection (3) for formatting. Adds new language to clarify the disconnecting means requirements for commercial lifts. The design of inclined stairway chairlifts at times involves a cord-and-plug to supply power to a battery charger and then the batteries supply power to the inclined stairway chairlift. If the cord-and-plug is removed from the outlet, the only control of hazardous energy is the ungrounded main power supply conductors to the charger. A hazard to affected persons remains from ungrounded main power supply conductors from the batteries to the inclined stairway chairlift. (ASME A18.1, Section 10.4)

An inclined stairway chairlift is under the scope of NFPA 70, Article 620.1 and thus Article 620.52 is applicable and adequately addresses the hazards precipitating from power from more than one source. Additionally, although not within our enforcement scope this provides compliance with the State of Washington's Occupational Safety and Health regulation 29 CFR 1910.147.

stairway chairlifts installed in compliance with NFPA 70, 620.51(A),

Exception No. 2 shall also comply with the following:

(a) A disconnecting means located on the unit shall be provided;

(b) The disconnecting means shall be lockable in the open

position;

(c) The disconnecting means shall open all ungrounded main power

supply conductors for the motor; and

(d) A sign shall be provided adjacent to the disconnect located

on the unit and on the cord and plug end or outlet and shall read as

follows: WARNING PARTS OF THE CONTROLLER ARE NOT DE-ENERGIZED BY THIS

SWITCH. See NFPA 70, 620.52 (B) and 110.21(B).

(3) If applicable, governor overspeed safety testing shall be

verified by manufacturer's documentation (see ASME A18.1, 9.9.2). If

9.9.2 testing documentation is provided, safeties shall be permitted

to be manually tripped at its normal speed in the down direction with

no load on the chair (see ASME A18.1). If ASME A18.1, 9.9.2

documentation is not provided or applicable, safeties shall be tested

with rated load (see ASME A18.1, 10.3.1.1).

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-

02605, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-

02605, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-

Commented [CAR(87): Adds new language to clarify the disconnecting means is lockable in the open position (open means to turn it off and disconnect the power) for residential stairway chairlifts. Clarifies the existing code. (See ASME A18.1 and NFPA 70, NEC)

Commented [CAR(88): Adds new language to clarify the existing code that the disconnecting means is lockable in the open position (open means to turn it off and disconnect the power) for commercial stairway chairlifts. (See ASME A18.1 and NFPA 70, NEC).

Commented [CAR(89): Adds new language to clarify the existing code that the disconnecting means does stop the conveyance from moving for commercial chair lifts. This change is necessary because the NEC does not address the issue of disconnecting battery power. (See ASME 17.1 and ASME A18.1(NFPA 70, 620.51).

Commented [CAR(90): Adds new language to clarify the existing electrical code that a sign must be posted (see ASME A17.1 and ASME A18.1 (NFPA 70, 620.52 (B) and 110.21(B)).

Commented [CAR(91): Relocates existing language from subsection (2) of this section with additional modifications to existing language to reflect the correct code reference and to further clarify full load safety testing. New 2020 version of ASME 18.1.

02605, filed 11/27/13, effective 1/1/14; WSR 07-24-041, § 296-96-02605, filed 11/30/07, effective 1/1/08.]

NEW SECTION

WAC 296-96-02610 Private residence platform lifts. (1) Battery

operated private residence platform lifts are not required to be permanently wired or installed on an individual branch circuit as required by NFPA 70, 620.51 (A) Exception 1. These conveyances shall be permitted to use a cord and plug that will act as the equipment disconnecting means if the following conditions are met:

(a) The lifts main power source must be from a battery system

that is receiving its charge from a cord and plug connected AC battery charger connected to a branch circuit.

(b) If located outside, the charger needs the circuit supplying

the battery charger to be protected by a ground fault circuit protection device.

(c) If located outside, the receptacle used to connect to the

battery charger must have a cover meeting the requirements of NEC

406.8(B) .

(d) The cord must be:

Commented [CAR92]: Adds new requirements for private residence platform lifts. NFPA requires this equipment to be hard wired. We are allowing an additional option for a cord and plug as a disconnecting means. This is a cost savings without compromising safety. Many of these units are already equipped with a cord and plug. This prevents cutting of the cord and destroying the UL rating and equipment warranty.

This change incorporates into rule the former department policy for battery operated vertical platform lifts. Reworded to be inclusive of inclined battery operated platform lifts also. This has been a standing department policy that needs to be included in the rules.

Commented [CAR93]: This change provides the requirements for using a cord and plug for private residence platform lifts as stated above. The cord and plug can be from a branch circuit. It does not need to be dedicated.

Commented [CAR94]: This change provides the requirements for using a cord and plug for private residence platform lifts as stated above. Adds new language that requires when the lift is located outside, a GFCI outlet needs to be used.

Commented [CAR95]: This change provides the requirements for using a cord and plug for private residence platform lifts as stated above. A cover must protect the receptacle.

Commented [CAR96]: This change provides the requirements for using a cord and plug for private residence platform lifts as stated above. Clarifies the requirements for the cord.

(i) Hard service rated;

(ii) Listed by an electrical testing laboratory approved by the

department of labor and industries electrical program;

(iii) In compliance with the requirements of NFPA 70, 400; and

(iv) Properly secured at least every 609.6 mm (24 in.), not

presenting a tripping hazard, and be limited to a total of 365.76 cm (12 ft.) in length from the power source to the unit.

(e) A sign must be posted at both the AC and DC source of power

disconnecting means and shall read as follows: WARNING PARTS OF THE CONTROLLER ARE NOT DE-ENERGIZED BY THIS SWITCH. See NFPA 70, 620.52 (B) and 110.21(B).

(f) At the DC source of power, a disconnect must be located on

the exterior of the lift and shall be lockable in the open position.

[]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-02650 Additional required on-site documentation. (1)

Wiring diagrams.

(2) A log identifying applicable tests.

Commented [CAR(97): This change provides the requirements for using a cord and plug for private residence platform lifts as stated above. The cord must be hard service rated, which is a special rating for outside cords.

Commented [CAR(98): This change provides the requirements for using a cord and plug for private residence platform lifts as stated above. The NEC requires the cord to be approved by a testing laboratory. (ASME A17.1, Section 9.1 and ASME A18.1, Section 1.5)

Commented [CAR(99): This change provides the requirements for using a cord and plug for private residence platform lifts as stated above. References the NFPA 70, NEC, which is adopted by L&I's Electrical Program. Provides requirements for cord compliance requirements. (ASME A17.1, Section 9.1 and ASME A18.1, Section 1.5)

Commented [CAR(100): This change provides the requirements for using a cord and plug for private residence platform lifts as stated above. References the NFPA 70, NEC, which is adopted by L&I's Electrical Program. Provides requirements for how to secure the cord. (ASME A17.1, Section 9.1 and ASME A18.1, Section 1.5).

Commented [CAR(101): Adds new language to clarify the existing electrical code that a sign must be posted for safety purposes (see NFPA 70, 620.52 (B) and 110.21(B)). (ASME A17.1, Section 9.1 and ASME A18.1, Section 1.5).

Commented [CAR(102): Adds new language to clarify the disconnecting means is lockable in the open position (open means to turn it off and disconnect the power) for private residence stairway chairlifts. Clarifies the existing code. (ASME A17.1, Section 9.1 and ASME A18.1, Section 1.5).

(3) Manufacturer's operational instructions that include the operation of the manual lowering device.

(4) Maintenance logs shall include the following tasks:

(a) Stair chair lifts:

(i) Platform (~~(lifts)~~) chair: (~~(A) Operating control devices;~~

~~(B) Seat, arm rests, and foot rest;~~

~~(C) Rated load and data plate; and~~

~~(D) Ride.)~~ Operating control devices, seat, arm rests, and foot rest, rated load and data plate, and ride.

(ii) Machine: (~~(A) Enclosure;~~

~~(B) Drive machine brake;~~

~~(C) Suspension means;~~

~~(D) Disconnecting means;~~

~~(E) Numbering of equipment;~~

~~(F) Gears and bearings;~~

~~(G) Winding drum;~~

~~(H) Suspension fastenings;~~

~~(I) Slack rope devices; and~~

~~(J) Overspeed governor.)~~ Enclosure, drive machine brake, suspension means, disconnecting means, numbering of equipment, gears

Commented [CAR(103): Changes to replace "lifts" with "chair" to reference correctly the piece under the stair chair lift. Reformatted to make the rule easier to use for customers. No change to existing requirements.

Commented [CAR(104): Reformatted to make the rule easier to use for customers. No change to existing requirements.

and bearings, winding drum, suspension fastenings, slack-rope devices, and overspeed governor.

(iii) Runway: (~~(A) Normal terminal stopping devices;~~

~~(B) Final terminal stopping devices;~~

~~(C) Head room;~~

~~(D) Guiding members;~~

~~(E) Construction;~~

~~(F) Clearances;~~

~~(G) Traveling cables and junction boxes;~~

~~(H) Guide rail fastenings and equipment; and~~

~~(I) Equipment exposure to weather.)) Normal terminal stopping~~

devices, final terminal stopping devices, head room, guiding members, construction, clearances, traveling cables and junction boxes, guide rail fastenings and equipment, and equipment exposure to weather.

(b) Inclined platform lifts:

(i) Platform: (~~(A) Stop switch;~~

~~(B) Operating control devices;~~

~~(C) Floor;~~

~~(D) Lighting;~~

~~(E) Emergency signal;~~

~~(F) Signs and operating device symbols;~~

Commented [CAR(105): Reformatted to make the rule easier to use for customers. No change to existing requirements.

Commented [CAR(106): Reformatted to make the rule easier to use for customers. No change to existing requirements.

~~(G) Rated load and data plates;~~

~~(H) Ride; and~~

~~(I) Arms and retractable ramps.)~~ Stop switch, operating control devices, floor, lighting, emergency signal, signs and operating device symbols, rated load and data plates, ride, and arms and retractable ramps.

(ii) Machine: (~~(A) Enclosure;~~

~~(B) Guarding of exposed auxiliary equipment;~~

~~(C) Drive machine brake;~~

~~(D) Gears and bearings;~~

~~(E) Winding drum;~~

~~(F) Belt or chain drive;~~

~~(G) Secondary and deflector sheaves;~~

~~(H) Suspension fastenings;~~

~~(I) Slack-rope devices;~~

~~(J) Safety device;~~

~~(K) Overspeed governor;~~

~~(L) Disconnecting means;~~

~~(M) Numbering of equipment; and~~

~~(N) Controller.)~~ Enclosure, guarding of exposed auxiliary equipment, drive machine brake, gears and bearings, winding drum, belt

Commented [CAR(107): Reformatted to make the rule easier to use for customers. No change to existing requirements.

or chain drive, secondary and deflector sheaves, suspension fastenings, slack-rope devices, safety device, overspeed governor, disconnecting means, numbering of equipment, and controller.

- (iii) Runway: ((~~(A) Normal terminal stopping devices;~~
~~(B) Final terminal stopping devices;~~
~~(C) Head room;~~
~~(D) Slack rope devices;~~
~~(E) Safeties and guiding members;~~
~~(F) Construction;~~
~~(G) Clearances;~~
~~(H) Guide rail fastenings and equipment;~~
~~(I) Suspension means; and~~
~~(J) Equipment exposure to weather.~~)) Normal terminal stopping

devices, final terminal stopping devices, head room, slack rope devices, safeties and guiding members, construction, clearances, guide rail fastenings and equipment, suspension means, and equipment exposure to weather.

(c) Vertical platform lifts:

- (i) Platform: ((~~(A) Stop switch;~~
~~(B) Operating control devices;~~
~~(C) Lighting and auxiliary lighting;~~

Commented [CAR(108): Reformatted to make the rule easier to use for customers. No change to existing requirements.

Commented [CAR(109): Reformatted to make the rule easier to use for customers. No change to existing requirements.

~~(D) Emergency signaling device;~~

~~(E) Gates and retractable ramps;~~

~~(F) Enclosure;~~

~~(G) Signs and operating device symbols;~~

~~(H) Rated load and data plate; and~~

~~(I) Ride.) Stop switch, operating control devices, lighting and auxiliary lighting, emergency signaling device, gates and retractable ramps, enclosure, signs and operating device symbols, rated load and data plate, and ride.~~

(ii) Machine: (~~(A) Enclosure;~~

~~(B) Drive machine brake;~~

~~(C) Gears and bearings;~~

~~(D) Winding drum;~~

~~(E) Belt or chain drive machine;~~

~~(F) Secondary or deflector sheaves;~~

~~(G) Suspension fastenings;~~

~~(H) Slack rope device;~~

~~(I) Overspeed governors;~~

~~(J) Hydraulic power unit;~~

~~(K) Control valves; and~~

Commented [CAR(110): Reformatted to make the rule easier to use for customers. No change to existing requirements.

~~(L) Hydraulic cylinders and supply piping.~~) Enclosure, drive machine brake, gears and bearings, winding drum, belt or chain drive machine, secondary or deflector sheaves, suspension fastenings, slack rope device, overspeed governors, hydraulic power unit, control valves, hydraulic cylinders and supply piping, numbering of equipment, disconnecting means, and controller.

(iii) Runways: (~~(A) Normal terminal stopping device,~~

~~(B) Final terminal stopping device,~~

~~(C) Head room,~~

~~(D) Slack rope device,~~

~~(E) Safeties and guiding members,~~

~~(F) Construction,~~

~~(G) Clearances,~~

~~(H) Traveling cables,~~

~~(I) Door and gate equipment,~~

~~(J) Suspension fastenings,~~

~~(K) Suspension means; and~~

~~(L) Equipment exposure to weather.~~) Normal terminal stopping device, final terminal stopping device, head room, slack rope device, safeties and guiding members, construction, clearances, traveling

Commented [CAR(111): Reformatted to make the rule easier to use for customers. No change to existing requirements.

cables, door and gate equipment, suspension fastenings, suspension means, and equipment exposure to weather.

(iv) Outside runway: (~~(A) Doors and gates;~~

~~(B) Door locking devices;~~ and

~~(C) Enclosure.~~) Doors and gates, door locking devices, and enclosure.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-02650, filed 8/31/21, effective 10/1/21.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-02700 ((Machine room)) Residential machinery space

requirements. (1) Where provided main line disconnects and car light

disconnects shall be located adjacent to the controller ((when not located in a dedicated machine room. When located in a dedicated room, commercial machine room requirements shall be followed. Main line disconnects shall comply with WAC 296-96-02460)).

(2) Access to the motor brake shall have:

(a) A lockable door that is a minimum of ((6")) 152.4 mm (6 in.)

x ((6")) 152.4 mm (6 in.) or ((36 sq. in.)) 914.4 mm² (36 in.²).

Commented [CAR(112): Reformatted to make the rule easier to use for customers. No change to existing requirements.

Commented [CAR(113): Changes the title of the rule to allow other residential spaces to be used for elevator machinery under this section, which may not include a machine room. Advantage for the homeowner not to have a dedicated room. They no longer have to partition an area to create a dedicated space for their elevator machinery. (ASME A17.1, Section 5.3).

Commented [CAR(114): Changes to clarify the machine room/space within a residence, and requirement for disconnects in certain scenarios. Advantage for the homeowner not to have a dedicated room.

Commented [CAR(115): Changes to update measurement conversion to coincide with the national standard.

(b) A "STOP" switch shall be located within reach of the access door.

(c) A light switch and GFCI receptacle shall be located within reach of the access door.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-02700, filed 8/31/21, effective 10/1/21.]

NEW SECTION

WAC 296-96-02705 Location of speed governor. Where a speed

governor is used, it shall be located where it is readily accessible from outside the hoistway, inside the car, or on top of the car and it cannot be struck by any moving object in normal operation or under conditions of overtravel, and where there is sufficient space for full movement of the governor parts.

[]

NEW SECTION

WAC 296-96-02710 Residential governor ropes. The governor

ropes, where used, shall be iron, steel, monel metal, or phosphor

Commented [CAR(116): Creates a new section to clarify existing code. This change allows Manufacturers to install the governor overspeed in locations where they can be more easily serviced. Manufacturers are going to a different component to use as the governor where it can be set, reset, and tested. They want to be able to access it like the other devices (e.g., limit switches) through the car operating panel. Residential elevator speed governors are not of the same size as found on a commercial elevator, some are as small as 3" in diameter; for instance, one manufacturer has the governor access through the Car Operating Panel (COP). Informational note: Manufacturers are looking into adding the governor for added safety, not because it is required. (See ASME A18.1.)

Commented [CAR(117): This change deviates from the ASME A18.1 code by allowing belts and other means, instead of steel cables for public safety. The existing code only allows for steel ropes. Residential elevators are limited in speed, 30fpm - 40fpm and travelling at such low speeds, makes it possible to use other than wire rope, like belts, to operate encoders. Some of the encoders that are being supplied have the capabilities of functioning as an encoder and overspeed governor; it is for this reason consideration of allowing belts.

bronze not less than 6 mm (0.25 in.) in diameter. Tiller rope construction shall not be used.

If equipped with a safety that is operated by the breakage of the suspension means, belts may be used for governor rope. Other means may also be used for governor rope if approved by the AHJ.

[]

NEW SECTION

WAC 296-96-02715 Disconnecting means, hoistwayless elevators.

Where the controller is located on the car, the disconnecting means shall be located adjacent to the controller. Auxiliary disconnect means shall be provided at the main landing when the main power supply disconnect means is mounted adjacent to the controller on the car.

[]

NEW SECTION

WAC 296-96-02720 Two-way communications means. A two-way

communications means permanently installed in the car shall be provided to summon dial or call (one or the other, or both) personnel who can take the appropriate action 24 hours each day. The two-way

Commented [CAR(118): This change deviates from the national code by requiring hoistwayless elevators to have the same standards as hoistway elevators for an auxiliary disconnect. This is necessary for public safety to prevent climbing under the car when there is no hoistway. The change requires an additional location for the disconnecting means. It allows for safely disconnecting the power without having to get into the elevator. (See ASME A17.1, Section 5.3.)

Commented [CAR(119): This change adds a new section that requires the phone line to be monitored by a person other than an answering machine/voicemail as stipulated in the code and allows homeowners to use the VOIP network. Adopts the national standard (see ASME A17.1, Section 5.3).

communications means shall not be transmitted to an automated answering device. A telephone may be connected to either a cellular network, VOIP, or a central telephone exchange shall be installed in the car.

If the normal power source for the communications means fails, the communications means shall automatically transfer to a source of power capable of providing service for at least four hours.

[]

PART C1 - MINIMUM STANDARDS FOR NEW AND ALTERED ((~~STANDARD APPLICATION~~)) WAC MATERIAL LIFTS

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-05000 Scope. The requirements in this part are intended to cover those stand-alone ((~~standard application~~)) WAC material lifts. Where Type-A or Type-B material lifts are installed, they shall comply with ASME A17.1/CSA B44, Part 7.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-05000, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-05000, filed 8/31/18, effective 10/1/18.]

Commented [CAR(120): Changes the term "standard application material lift" to "WAC Material Lift" throughout the chapter. The purpose is to better understand and illustrate that these particular material lifts, are installed and maintained to this standard in the WAC. As well, the term 'standard' is misleading; as these are not 'standard', they are built to the rules housed within WAC Part C1.

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-05010 Definition and use. (1) These rules define a ~~((standard application))~~ WAC material lift" as a fixed stationary conveyance that:

- (a) Has a car or platform moving in guides;
- (b) Serves two or more floors of a building or structure;
- (c) Has a vertical rise of at least ~~((5 ft.))~~ 1524 mm (60 in.)

and no more than 18.288 m (60 ft.);

- (d) Has a maximum speed of 0.254 m/s (50 ft./min.);
- (e) Is not part of a conveying system but is an isolated self-contained lift;
- (f) Travels only in an inclined or vertical direction;
- (g) Is operated or supervised by an individual designated by the employer;
- (h) Is installed in a commercial or industrial area not

accessible to the general public; and

- (i) May not be operated from within the car.

(2) ~~((Standard application))~~ WAC material lifts shall not carry people so their operation or failure will not endanger people working

Commented [CAR(121): Changes the term "standard application material lift" to "WAC Material Lift" throughout the chapter. The purpose is to better understand and illustrate that these particular material lifts, are installed and maintained to this standard in the WAC. As well, the term 'standard' is misleading; as these are not 'standard', they are built to the rules housed within WAC Part C1.

Commented [CAR(122): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(123): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(124): Changes the term "standard application material lift" to "WAC Material Lift" throughout the chapter. The purpose is to better understand and illustrate that these particular material lifts, are installed and maintained to this standard in the WAC. As well, the term 'standard' is misleading; as these are not 'standard', they are built to the rules housed within WAC Part C1.

near them. WAC 296-96-05010 through 296-96-05290 establishes requirements for the construction, installation, and operation of standard material lifts.

These rules do not apply to conveyances that lack a car (platform) and use rollers, belts, tracks, power conveyors, or similar carrying (loading) surfaces. (See ASME/ANSI B20.1.)

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-05010, filed 8/31/18, effective 10/1/18. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185, 70.87.190, 2002 c 98, 2003 c 143 and 2004 c 66. WSR 04-12-047, § 296-96-05010, filed 5/28/04, effective 6/30/04. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-05010, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-05020 Hoistway enclosure. Generally, local codes and ordinances govern hoistway enclosure construction. When not in conflict with a local code requirement, the enclosure shall:

(1) Be built to a height of 2133.6 mm (84 in.) above each floor,

Commented [CAR(125): Changes to update measurement conversion to coincide with the national standard.

landing and adjacent stairway tread;

(2) Extend (adjacent to the counterweights) the full height of

Commented [CAR(126): Changes to update measurement conversion to coincide with the national standard.

the floor and 203.2 mm (8 in.) beyond the counterweight raceway;

(3) Be constructed of either solid material or material with

Commented [CAR(127): Changes to update measurement conversion to coincide with the national standard.

openings that will reject a 50.8 mm (2 in.) diameter ball;

(4) Be supported and braced so that it does not deflect more than

Commented [CAR(128): Changes to update measurement conversion to coincide with the national standard.

(~~1-inch~~) 25.4 mm (1 in.) when subjected to a force of 100 lbs.

applied perpendicular at any point;

(5) A full height hoistway enclosure is required only on the side(s) of the material lift for which the car is not equipped with a gate or enclosure.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-05020, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-05020, filed 8/31/18, effective 10/1/18; WSR 07-24-041, § 296-96-05020, filed 11/30/07, effective 1/1/08. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-05020, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-05030 Hoistway gates and doors. Enclosure gates (doors) shall be constructed according to the following standards:

(1) The gate shall guard the full width of each opening on every landing.

(2) It shall be built in one of the following styles:

(a) Vertically sliding;

(b) Biparting;

(c) Counter-balanced;

(d) Horizontally swinging; or

(e) Horizontally sliding.

(3) Be constructed of either solid material or material with openings that will reject a 50.8 mm (2 in.) diameter ball.

(4) Be constructed with a distance of not more than 63.5 mm (2.5 in.) between a hoistway gate or hoistway door face and a landing sill edge.

(5) Be designed and guided to withstand (without being broken, permanently deformed, or displaced from its guides or tracks) a 100 pound lateral pressure applied near its center.

Commented [CAR(129): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(130): Changes to update measurement conversion to coincide with the national standard.

(6) Be equipped with labeled and listed electrical interlock(s) that prevents the operation of the lift when the doors or gates are open.

(7) Be constructed with balanced type vertically sliding gates that extend no more than 50.8 mm (2 in.) vertically from the landing threshold and no less than 1676.4 mm (66 in.) above it.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-05030, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-05030, filed 8/31/18, effective 10/1/18. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185, 70.87.190, 2002 c 98, 2003 c 143 and 2004 c 66. WSR 04-12-047, § 296-96-05030, filed 5/28/04, effective 6/30/04. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-05030, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-05070 Car enclosures. (1) Lift cars shall have their sides enclosed with solid panels or openwork that will reject a (~~two-inch~~) 50.8 mm (2 in.) diameter ball. On the car sides where there is

Commented [CAR(131): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(132): Changes to update measurement conversion to coincide with the national standard.

no gate (door), the enclosure shall extend to a height of at least 1219.2 mm (48 in.) from the floor or to a height necessary to enclose the materials that are being moved, whichever is greater. On the car side next to the counterweight runway, the enclosure shall extend vertically to the car top or underside of the car crosshead and horizontally to at least 152.4 mm (6 in.) on each side of the runway.

(2) ~~((Standard application))~~ WAC material lifts in unenclosed hoistways shall have a car gate that is constructed of the same material as the car enclosure.

(3) The gate, if required or supplied, shall be the same height as the sidewalls of the car enclosure and shall be provided with a latching device and electrical contact to prevent the operation of the motor and brake if open more than ~~((two inches))~~ 50.8 mm (2 in.).

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-05070, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-05070, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-05070, filed 11/27/13, effective 1/1/14. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185, 70.87.190, 2002 c 98, 2003 c 143 and 2004 c 66. WSR 04-12-047, § 296-96-05070, filed 5/28/04, effective 6/30/04. Statutory Authority: RCW 70.87.020,

Commented [CAR(133): Changes the term "standard application material lift" to "WAC Material Lift" throughout the chapter. The purpose is to better understand and illustrate that these particular material lifts, are installed and maintained to this standard in the WAC. As well, the term 'standard' is misleading; as these are not 'standard', they are built to the rules housed within WAC Part C1.

Commented [CAR(134): Changes to update measurement conversion to coincide with the national standard.

70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-05070, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-05080 Running clearance. Running clearance between a

car sill and a hoistway enclosure shall not exceed (~~two inches~~) 50.8 mm (2 in.). If the lift is supplied with a car door or gate, the running clearance is measured from the car sill to the hoistway sill.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-05080, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-05080, filed 11/27/13, effective 1/1/14. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-05080, filed 12/22/00, effective 1/22/01.]

Commented [CAR(135): Changes to update measurement conversion to coincide with the national standard.

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-05090 Car and counterweight guides. Car and

counterweight guide rails shall be fastened so they will not deflect

Commented [CAR(136): Changes to update measurement conversion to coincide with the national standard.

more than 3.175 mm (0.125 in.). They shall also be strong enough to withstand, without deformation, the application of a car safety when the car is carrying its rated load and traveling at its rated speed.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-05090, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-05090, filed 8/31/18, effective 10/1/18. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-05090, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-05190 Pits. The following requirements shall apply to lift pits:

- (1) Have noncombustible floors;
- (2) Be designed to prevent the entry of groundwater into the pit;
- (3) Have floors that are substantially level;
- (4) Where provided, drains shall not be directly connected to

sewers;

- (5) Provide safe and convenient access to the pit;

(6) Have an approved access ladder for pits deeper than 914.4 mm

(36 in.); and

(7) Have nonperforated metal guards installed on the open sides of the counterweights where spring, solid or oil type buffers are attached. These guards shall:

(a) Extend from a point not more than 304.8 mm (12 in.) above the pit floor to a point at least 2133.6 mm (84 in.) but not more than 2438.4 mm (96 in.) above the floor;

(b) Be fastened to a properly reinforced and braced metal frame which will be at least equal in strength and stiffness to No. 14 U.S. gauge sheet steel; and

(c) Be omitted on the pit side where compensating chains or ropes are attached to the counterweight.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-05190, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-05190, filed 8/31/18, effective 10/1/18. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-05190, filed 12/22/00, effective 1/22/01.]

Commented [CAR(137): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(138): Changes to update measurement conversion to coincide with the national standard.

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-05210 Signage. (1) Each lift shall have the

following two signs:

~~((1))~~ (a) A "CAPACITY" sign permanently fastened in the lift car and on each landing. This sign shall indicate the rated load of the lift in pounds and be made of metal with 50.8 mm (2 in.) high black letters on a yellow background.

~~((2))~~ (b) A "NO RIDERS" sign conspicuously and permanently fastened on the landing side of all hoistway gates (doors) and in the enclosure of each car. This sign shall be made of metal with 50.8 mm (2 in.) high black letters on a red background.

(2) A "code data plate" shall be displayed on the equipment. The code data plate shall be made of metal with 50.8 mm (2 in.) high black letters on a yellow background. The data plate must show the following:

- (a) The name of the manufacturer;
- (b) The date of installation with a blank area for the date; and
- (c) The code and year it was manufactured.

Commented [CAR(139): Creates a new subsection (1) for formatting to allow for other subsections.

Commented [CAR(140): Changes subsection (1) to subdivision (a) for formatting. Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(141): Changes subsection (2) to subdivision (b) for formatting. Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(142): Creates a new subsection to add a reference to explain what a 'code data plate' is for WAC material lifts, and what information is needed. This is a new requirement for more accurate record keeping.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-05210, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-05210, filed 8/31/18, effective 10/1/18. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-05210, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-07150 Guide rails, track supports and fastenings.

(1) Guides, guide rails, guide rail brackets, and their fastenings and supports shall, at the point of support, deflect 3.175 mm (0.125 in.) or less while resisting horizontal forces encountered during loading. When horizontal force is measured at a mid-point between brackets, guide rails shall deflect 6.35 mm (0.25 in.) or less in any direction.

(2) Fixed, suspended cable guides may be used as a guide member(s). When used, the deflection is to be specified by the manufacturer and approved by a structural engineer licensed in the state of Washington.

Commented [CAR(143): Changes to update measurement conversion to coincide with the national standard.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-07150, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-07150, filed 8/31/18, effective 10/1/18; WSR 07-24-041, § 296-96-07150, filed 11/30/07, effective 1/1/08. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-07150, filed 12/22/00, effective 1/22/01.]

PART D - REGULATIONS FOR EXISTING ELEVATORS, ((~~STANDARD APPLICATION~~)) WAC MATERIAL LIFTS, DUMBWAITERS, ((~~AND~~)) ESCALATORS, AND ACCESSIBILITY LIFTS

NOTE: This part provides the minimum requirements for existing conveyances. Application of Part D rules apply where a conveyance was not provided, or required to be provided, with a device or system when originally installed or altered. Where Part D does not cover a particular device or system, refer to ASME A17.3.

NEW SECTION

WAC 296-96-23102 Roof access through horizontal hatch-type covers. Fixed wooden ladders are prohibited. Where such ladders exist

they shall be replaced with one of the following:

- (1) Noncombustible conventional stairway with a slope of not more than 60 degrees from horizontal.
- (2) Noncombustible collapsible (retractable) stair.

Commented [CAR(144): Changes the section header to replaces the term "standard application material lift" to "WAC Material Lift" throughout the chapter.

Changes for the addition of accessibility lifts to clarify that Part D covers commercial accessibility lifts. The equipment is already listed under Part D currently.

Commented [CAR(145): This change adds new requirements to provide for safer access to roof doors leading to elevator machine rooms. Some access to roof areas are currently provided with wooden ladders, which do not comply with ANSI A14.3. The access is not through a conventional vertical door, but through a horizontal hatch cover. In some cases, personnel are expected to grasp the ladder with one hand while unlocking and opening the hatch cover with the other. This creates a potential fall hazard. There may be instances where a stair is not technically feasible due to existing building constraints (i.e. structural elements). Providing a fixed ladder may be the only option. The proposed language makes allowances where a stair or collapsible stair is not feasible.

(3) Noncombustible fixed vertical ladders complying with ANSI A14.3, Standard for Ladders, Fixed and Safety Requirements.

(4) Horizontal hatch-type covers.

(a) While facing the ladder, covers shall be hinged and located so as to open to the left or right side of the opening.

(b) The cover shall be provided with a mechanical-assist means to open (e.g., springs, hydraulic, counterweighted, etc.).

(c) The cover shall be constructed of noncombustible material where required to be replaced.

(d) Where a fixed ladder is provided:

(i) Handrails shall be located on the roof on both sides of the opening in line with the access ladder. They shall extend not less than 914.4 mm (36 in.) in height above the roof level. They shall be located as to provide easy reach from the top of the ladder.

(ii) Means shall be provided to hoist tools and materials to the roof level once the hatch cover is open.

[]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-23116 Car numbers. In any building with more than one elevator, numbers at least **50.8 mm (2 in.)** in height identifying each car shall be located at the main lobby entrance, inside the car, on the machine, and on the disconnect switch and if the conveyance has a walk-in pit, numbers shall also be installed on the buffer stands. Elevators installed in compliance with ASME A17.1/CSA B44, 2.29 are exempt from this rule.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-23116, filed 8/31/18, effective 10/1/18; WSR 07-24-041, § 296-96-23116, filed 11/30/07, effective 1/1/08. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-23116, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-23117 Car top guard railings. A standard railing shall be installed on the top of all elevators in compliance with ASME A17.1/CSA B44, 2.14.1.7. Where existing conditions do not permit the

Commented [CAR(146): Changes to update measurement conversion to coincide with the national standard.

railing to be installed according to clearances of 2.14.1.7.2, the following shall apply:

(1) The top railing shall be installed at a height of not less than ~~((1070))~~ 1066.8 mm (42 in.) nor more than ~~((1100))~~ 1092.2 mm (43 in.) from the car top.

Commented [CAR(147): Changes to update measurement conversion to coincide with the national standard.

(2) Where overhead conditions prevent the top railing from being located between ~~((1070))~~ 1066.8 mm (42 in.) and ~~((1100))~~ 1092.2 mm (43 in.), the railing shall be permitted to be lowered to a height that will still provide the minimum ~~((100))~~ 101.6 mm (4 in.) vertical clearance to the nearest overhead object. In such cases the top railing shall be provided with red and white stripes ~~((50))~~ 50.8 mm (2 in.) in width.

Commented [CAR(148): Changes to update measurement conversion to coincide with the national standard.

(3) The stripes are only required on the side(s) where the top rail is below ~~((900))~~ 889 mm (35 in.).

Commented [CAR(149): Changes to update measurement conversion to coincide with the national standard.

(4) Where required, the stripes shall extend the entire length of the top rail.

(5) Where overhead conditions prevent the railing from complying with the vertical height and/or the clearances in 2.14.1.7.2(a) or (b), provide signage as required by WAC 296-96-23119(2).

(6) Toeboards are not required.

Exception: This requirement does not apply to electric manlifts or residential elevators.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-23117, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-23117, filed 8/31/18, effective 10/1/18; WSR 07-24-041, § 296-96-23117, filed 11/30/07, effective 1/1/08. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185, 70.87.190, 2002 c 98, 2003 c 143 and 2004 c 66. WSR 04-12-047, § 296-96-23117, filed 5/28/04, effective 6/30/04.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-23119 Low overhead signs. (1) Elevators that do not have a minimum of 609.6 mm (24 in.) clearance from the crosshead, or any equipment mounted on the crosshead, to the lowest member of the overhead structure in the hoistway when the car has reached its maximum upward movement shall be provided with caution signage. A sign shall be located near the top of car inspection station. An additional sign shall be posted on the hoistway wall. This sign shall be visible when accessing the car top. The sign shall consist of alternating 101.6 mm (4 in.) diagonal red and white stripes and shall clearly

Commented [CAR(150): Changes to update measurement conversion to coincide with the national standard.

state "danger low clearance" in lettering not less than 101.6 mm (4 in.) in height.

(2) Where required by WAC 296-96-23117(5), a sign shall be provided that reads "Caution: Low Clearances Above Guardrail."

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-23119, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-23119, filed 8/31/18, effective 10/1/18; WSR 07-24-041, § 296-96-23119, filed 11/30/07, effective 1/1/08. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185, 70.87.190, 2002 c 98, 2003 c 143 and 2004 c 66. WSR 04-12-047, § 296-96-23119, filed 5/28/04, effective 6/30/04.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-23122 Machine room and machinery space illumination.

Elevators installed under the 1996 and earlier editions of ASME A17.1/CSA B44 shall have a minimum of 10 foot-candles of illumination at floor level within the working areas in machine rooms and machinery spaces.

Commented [CAR(151): Adds new language to reference the full ASME A17.1/CSA B44 national code, which is the proper reference.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-23122, filed 8/31/18, effective 10/1/18; WSR 07-24-041, § 296-96-23122, filed 11/30/07, effective 1/1/08. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-23122, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-23126 Guarding of equipment. (1) Where feasible, gears, sprockets, sheaves, cables, tapes, belts and chains shall be fitted with suitable guards to prevent accidental contact.

(2) Openings in machine room floors above the hoistway must be guarded to prevent tools and materials from falling into the hoistway below.

(3) Open grating in machine room floors shall reject a ball 12.7 mm (0.5 in.) in diameter.

(4) Ventilation grids where exposed to the hoistway below shall be firmly fastened to prevent accidental removal and shall be fitted with 12.7 mm (0.5 in.) wire mesh securely attached to the grid.

Commented [CAR(152): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(153): Changes to update measurement conversion to coincide with the national standard.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-23126, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-23126, filed 8/31/18, effective 10/1/18. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-23126, filed 12/22/00, effective 1/22/01.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-23130 Pit access. Access ladders shall be installed in elevator pits 914.4 mm (36 in.) or deeper. Where constraints prohibit the installation of a pit ladder conforming to ASME A17.1/CSA B44, 2.2.4.2, a retractable ladder shall be permitted to be installed in accordance with 2.2.4.2.7 and 2.2.4.2.8 of ASME A17.1/CSA B44.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-23130, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-23130, filed 8/31/18, effective 10/1/18. Statutory Authority: RCW 70.87.020, 70.87.030, 70.87.034, 70.87.120, 70.87.185 and chapter 70.87 RCW. WSR 01-02-026, § 296-96-23130, filed 12/22/00, effective 1/22/01.]

Commented [CAR(154): Changes to update measurement conversion to coincide with the national standard.

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-23605 Examination of (~~standard application~~) WAC material lifts, special purpose elevators, electric manlifts, and hand-powered manlifts. (1) Examination (~~standard application~~) WAC

material lifts, special purpose lifts, electric manlifts and hand elevators shall conform to the following:

(a) Annual examination requirements for electrical elevators.

Service providers shall furnish documentation to include the following components or systems that shall be examined if installed.

- (b) Inside car: (~~(i) Stop switches;~~
~~(ii) Operating control devices;~~
~~(iii) Car lighting and auxiliary lighting*;~~
~~(iv) Car emergency signal;~~
~~(v) Car door or gate;~~
~~(vi) Ventilation;~~
~~(vii) Restricted opening of car or hoistway doors;~~
~~(viii) Car ride;~~
~~(ix) Stopping accuracy;~~
~~(x) Car enclosure;~~

Commented [CAR(155): Changes the title to replace the term "standard application material lift" to "WAC Material Lift" throughout the chapter.

Commented [CAR(156): Replaces the term "standard application material lift" to "WAC Material Lift" throughout the chapter.

Commented [CAR(157): Reformatted to make the rule easier to use for customers. No change to existing requirements.

~~(xi) Emergency exits;~~
~~(xii) Signs and operating device symbols; and~~
~~(xiii) Equipment exposure to weather*.)~~ Stop switches, operating control devices, car lighting and auxiliary lighting*, car emergency signal, car door or gate, ventilation, restricted opening of car or hoistway doors, car ride, stopping accuracy, car enclosure, emergency exits, signs and operating device symbols; and equipment exposure to weather*.

- (c) Machine room/control room: (~~(i) Guarding of equipment;~~
~~(ii) Stop switch;~~
~~(iii) Disconnecting means and control;~~
~~(iv) Controller wiring, fuses, grounding, etc.;~~
~~(v) Machinery supports and fastenings;~~
~~(vi) Drive machine brakes;~~
~~(vii) Traction drive machines;~~
~~(viii) Gears, bearings, and flexible connections;~~
~~(ix) Winding drum machine;~~
~~(x) Absorption of regenerated power;~~
~~(xi) Traction sheaves;~~
~~(xii) Secondary and deflector sheaves;~~
~~(xiii) Rope fastenings;~~

Commented [CAR(158): Reformatted to make the rule easier to use for customers. No change to existing requirements.

~~(xiv) Operating devices;~~
~~(xv) Code data plate*;~~
~~(xvi) Slack rope devices;~~
~~(xvii) Wiring diagrams;~~
~~(xviii) Rope retainers or restraints;~~
~~(xix) Equipment exposure to weather*;~~ and
~~(xx) Fire extinguisher*.)~~ Guarding of equipment, stop switch, disconnecting means and control, controller wiring, fuses, grounding, etc., machinery supports and fastenings, drive machine brakes, traction drive machines, gears, bearings, and flexible connections, winding drum machine, absorption of regenerated power, traction sheaves, secondary and deflector sheaves, rope fastenings, operating devices, code data plate*, slack rope devices, wiring diagrams, rope retainers or restraints, equipment exposure to weather*, and fire extinguisher*.

(d) Top-of-car:

- ~~(i) ((Top of car stop switch;~~
- ~~(ii) Car top light and outlet;~~
- ~~(iii) Top of car operating device and/or working platforms;~~
- ~~(iv) Car, overhead, and deflector sheaves;~~
- ~~(v) Crosshead data plate;~~

Commented [CAR(159): Reformatted to make the rule easier to use for customers. No change to existing requirements.

- ~~(vi) Traveling cables and junction boxes;~~
- ~~(vii) Door and gate equipment;~~
- ~~(viii) Car frame and stiles;~~
- ~~(ix) Guide rails fastening and equipment;~~
- ~~(x) Governor rope;~~
- ~~(xi) Governor releasing carrier;~~
- ~~(xii) Fastening and hitch plate;~~
- ~~(xiii) Suspension means;~~
- ~~(xiv) Compensation means;~~
- ~~(xv) Working areas on the car top;~~
- ~~(A) Means to prevent unexpected movement.~~
- ~~(B) Unexpected car movement device.~~
- ~~(C) Operating instructions for unexpected car movement device.~~
- ~~(D) Operating instructions for egress and reentry procedure.~~
- ~~(xvi) Machinery supports and fastenings;~~
- ~~(xvii) Guarding of exposed auxiliary equipment;~~
- ~~(xviii) Rope retainers and snag guards;~~
- ~~(xix) Position restraints;~~
- ~~(xx) Top emergency exit;~~
- ~~(xxi) Hoistway construction*, and~~

~~(xxii) Equipment exposure to weather*.)~~ Top-of-car stop switch, car top light and outlet, top-of-car operating device and/or working platforms, car, overhead, and deflector sheaves, crosshead data plate, traveling cables and junction boxes, door and gate equipment, car frame and stiles, guide rails fastening and equipment, governor rope, governor releasing carrier, fastening and hitch plate, suspension means, compensation means, machinery supports and fastenings, guarding of exposed auxiliary equipment, rope retainers and snag guards, position restraints, top emergency exit, hoistway construction*, equipment exposure to weather*; and

(ii) Working areas on the car top: Means to prevent unexpected movement, unexpected car movement device, operating instructions for unexpected care movement device, and operating instructions for egress and reentry procedure.

(e) Outside hoistway: (~~(i) Car platform guard;~~

~~(ii) Hoistway doors;~~

~~(iii) Hoistway door locking devices;~~

~~(iv) Access to hoistway;~~

~~(v) Emergency and access hoistway openings;~~

~~(vi) Separate counterweight hoistway;~~

~~(vii) Elevator parking devices; and~~

Commented [CAR(160): Reformatted to make the rule easier to use for customers. No change to existing requirements.

~~(viii) Equipment exposure to weather*.)~~ Car platform guard, hoistway doors, hoistway door locking devices, access to hoistway, emergency and access hoistway openings, separate counterweight hoistway, elevator parking devices, and equipment exposure to weather*.

(f) ~~Pit: ((i) Pit access, lighting, stop switch and condition,~~

~~(ii) Bottom clearance and runby,~~

~~(iii) Traveling cables,~~

~~(iv) Compensating chains, ropes, and sheaves,~~

~~(v) Car frame and platform,~~

~~(vi) Machinery supports and fastenings,~~

~~(vii) Guarding of exposed auxiliary equipment,~~

~~(viii) Equipment exposure to weather*, and~~

~~(ix) Buffers.)~~ Pit access, lighting, stop switch and condition,

bottom clearance and runby, traveling cables, compensating chains, ropes, and sheaves, car frame and platform, machinery supports and fastenings, guarding of exposed auxiliary equipment, equipment exposure to weather*, and buffers.

Note: (*) A visual component that must be reported to the owner.

Commented [CAR(161): Reformatted to make the rule easier to use for customers. No change to existing requirements.

(2) Annual examination requirements for hydraulic elevators.

Commented [CAR(162): Reformatted to make the rule easier to use for customers. No change to existing requirements.

Service providers shall furnish documentation to include the following components or systems that shall be examined if installed.

- ~~(a) Inside the car: ((i) Stop switches;~~
- ~~(ii) Operating control devices;~~
- ~~(iii) Car lighting and auxiliary lighting;~~
- ~~(iv) Car emergency signal;~~
- ~~(v) Car door or gate;~~
- ~~(vi) Emergency exit;~~
- ~~(vii) Ventilation;~~
- ~~(viii) Signs and operating device symbols;~~
- ~~(ix) Restricted opening of car or hoistway doors;~~
- ~~(x) Car ride;~~
- ~~(xi) Stopping accuracy;~~
- ~~(xii) Car enclosure; and~~
- ~~(xiii) Equipment exposure to weather.))~~

Stop switches, operating control devices, car lighting and auxiliary lighting, car emergency signal, car door or gate, emergency exit, ventilation, signs and operating device symbols, restricted opening of car or hoistway doors, car ride, stopping accuracy, car enclosure, and equipment exposure to weather.

(b) Machine room/control room: (~~(i) Stop switch;~~

~~(ii) Disconnecting means and control;~~

~~(iii) Controller wiring, fuses, grounding, etc.;~~

~~(iv) Hydraulic power unit;~~

~~(v) Tanks*;~~

~~(vi) Wiring diagrams;~~

~~(vii) Code data plate*;~~

~~(viii) Equipment exposure to weather*;~~ and

~~(ix) Fire extinguisher*.)~~ Stop switch, disconnecting means and

control, controller wiring, fuses, grounding, etc., hydraulic power unit, tanks*, wiring diagram, code data plate*, equipment exposure to weather*, and fire extinguisher*.

Commented [CAR(163): Reformatted to make the rule easier to use for customers. No change to existing requirements.

(c) Top-of-car: (~~(i) Top of car stop switch;~~

~~(ii) Car top light and outlet;~~

~~(iii) Top of car operating device and working platforms;~~

~~(iv) Top emergency exit;~~

~~(v) Traveling cables and junction boxes;~~

~~(vi) Door and gate equipment;~~

~~(vii) Car frame and stiles;~~

~~(viii) Guide rails fastening and equipment;~~

~~(ix) Governor rope;~~

Commented [CAR(164): Reformatted to make the rule easier to use for customers. No change to existing requirements.

~~(x) Wire rope fastening and hitch plate;~~

~~(xi) Suspension rope;~~

~~(xii) Slack rope device;~~

~~(xiii) Traveling sheave;~~

~~(xiv) Crosshead data plate*;~~

~~(xv) Guarding of equipment; and~~

~~(xvi) Equipment exposure to weather*.)~~ Top-of-car stop switch,

car top light and outlet, top-of-car operating device and working

platforms, top emergency exit, traveling cables and junction boxes,

door and gate equipment, car frame and stiles, guide rails fastening

and equipment, governor rope, wire rope fastening and hitch plate,

suspension rope, slack rope device, traveling sheave, crosshead data

plate*, guarding of equipment, and equipment exposure to weather*.

(d) Outside hoistway: (~~(i) Car platform guard;~~

~~(ii) Hoistway doors;~~

~~(iii) Hoistway door locking devices;~~

~~(iv) Access to hoistway; and~~

~~(v) Equipment exposure to weather*.)~~ Car platform guard,

hoistway doors, hoistway door locking devices, access to hoistway, and

equipment exposure to weather*.

(e) Pit: (~~(i) Pit access, lighting, stop switch, and condition;~~

Commented [CAR(165): Reformatted to make the rule easier to use for customers. No change to existing requirements.

~~(ii) Bottom clearance and runby;~~

~~(iii) Plunger and cylinder;~~

~~(iv) Traveling cables;~~

~~(v) Car frame and platform;~~

~~(vi) Supply piping;~~

~~(vii) Governor rope tension device;~~

~~(viii) Machinery supports and fastenings;~~

~~(ix) Guarding of exposed auxiliary equipment; and~~

~~(x) Equipment exposure to weather*.) Pit access, lighting, stop~~

switch, and condition, bottom clearance and runby, plunger and

cylinder, traveling cables, car frame and platform, supply piping,

governor rope tension device, machinery supports and fastenings,

guarding of exposed auxiliary equipment, and equipment exposure to

weather*.

Note: (*) A visual component that must be report to the owner.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-23605, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-23605, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-23605, filed 11/27/13, effective 1/1/14.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-23606 Installations placed in ((voluntary)) red tag

status. (1) Maintenance, examinations, and safety tests shall not be required when an installation is placed in ((voluntary)) red tag status. All code required maintenance, examinations, and safety tests shall be up to date, prior to removal of the red tag.

(2) A conveyance in red tag status for two years or more shall be subject to witnessing by the inspector for the category tests due and may include ASME A17.1/CSA B44, 8.11 items, before being placed back in service.

(3) Annual operating certificate, maintenance, examinations, inspections, and tests shall not be required when an installation is placed in ((voluntary)) red tag status.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-23606, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-23606, filed 11/27/13, effective 1/1/14.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

Commented [CAR(166): Changes the title to remove "voluntary" to better clarify these requirements are to be followed, regardless of either voluntary or program directed red tag.

Commented [CAR(167): Changes to remove "voluntary" to better clarify these requirements are to be followed, regardless of either voluntary or program directed red tag.

Commented [CAR(168): Changes to remove "voluntary" to better clarify these requirements are to be followed, regardless of either voluntary or program directed red tag.

WAC 296-96-23701 Maintenance and tests on commercial

accessibility lifts. (1) One- and five-year inspection test tags (~~in accordance with ASME A18.1, Section 10.3,~~) shall be required, attached, and visible. (~~A full load safety test shall be performed with weights on all commercial accessibility equipment.~~)

Commented [CAR(169): Changed verbiage to coincide with adopted standard. (see ASME A18.1)

(2) The owner shall ensure that the accessibility lifts are routinely examined and maintained in accordance with ASME A18.1, Section 11 and with this subpart.

(3) Documentation of tests, examinations and maintenance shall be readily accessible on-site within the written maintenance program (WMP).

Commented [CAR(170): Clarifies that tests, exams, and maintenance must be accessible in the written maintenance program (WMP) to coincide with adopted code language. (See ASME A18.1).

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-23701, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-23701, filed 8/31/18, effective 10/1/18; WSR 13-24-066, § 296-96-23701, filed 11/27/13, effective 1/1/14.]

Subpart VI

~~((Standard Application))~~ WAC Material Lifts

Commented [CAR(171): Changes the title to replaces the term "standard application material lift" to "WAC Material Lift" throughout the chapter.

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24000 Applicable codes and rules. ((Standard application)) WAC material lifts shall comply with the rules adopted by the department that were in effect at the time the conveyance was permitted, regardless of whether the rule(s) has been repealed, unless any new rule specifically states that it applies to all conveyances regardless of when the conveyance was permitted. Copies of previous rules adopted by the department are available upon request.

Commented [CAR(172): Changes to replace the term "standard application material lift" to "WAC Material Lift" throughout the chapter.

If the department determines that a ((standard application)) WAC material lift was installed without a permit and/or without an inspection, the conveyance will be required to comply with the current rules adopted by the department at time of discovery.

Commented [CAR(173): Changes to replace the term "standard application material lift" to "WAC Material Lift" throughout the chapter.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24000, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24112 Runway clearances. (1) If the car sides extend less than 1.8288 m (6 ft.) above the floor of the car, there shall be no obstruction along the runway within 609.6 mm (24 in.) of the car sides.

Commented [CAR(174): Changes to update measurement conversion to coincide with the national standard.

EXCEPTION: When solid guards are installed on the obstruction in both directions of travel which project at least 14 in. in line with the direction of travel, the running clearance may be reduced to 7 in. The guard shall be arched and the edges rounded to eliminate shear hazard.

(2) Guiding members and moving parts of the inclined private residence elevator shall be kept free of brush and other types of material that might either impede the travel or cause deterioration of the equipment over time.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24112, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24115 Landing enclosures and gates. Any landing enclosures and gates shall have:

(1) A railing at least 1066.8 mm (42 in.) high to protect all landing platforms and those areas of a building used as landing platforms; and

(2) A gate whose height is equal to the height of the railing to protect the passenger landing opening.

(a) Gates may either be a horizontally sliding type or a swing type; and

Commented [CAR(175): Changes to update measurement conversion to coincide with the national standard.

(b) All gates shall be equipped with a latch that holds the gate closed and an electrical contact to prevent movement of the car when a gate is open.

(3) Railing enclosure and gate shall reject a 38.1 mm (1.5 in.) diameter ball.

Commented [CAR(176): Changes to update measurement conversion to coincide with the national standard.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24115, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24118 Bumpers and buffers. (1) If spring or equivalent type buffers are not being used and rated speeds do not exceed 50 ft. per minute, solid bumpers shall be installed. Solid bumpers shall:

- (a) Be built of wood or other suitable resilient material;
- (b) Have the ability to resist deterioration from weather;
- (c) Have sufficient strength to withstand, without failure, the impact of a descending car carrying its rated load or counterweight and traveling at 115 percent of its rated speed.

(2) Spring type buffers shall be installed when speeds exceed 50 ft. per minute. Spring buffers shall:

(a) Be built with a minimum stroke of (~~(3/4 in.)~~) 19.05 mm (0.75 in.) and with a maximum stroke of (~~(1-1/2 in.)~~) 38.1 mm (1.5 in.);

(b) Not fully compress when struck by a car carrying its rated load or counterweight and traveling at 115 percent of its rated speed.

(3) Inclined private resident elevators are not required to have bumpers and buffers except when obstructions are encountered.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24118, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24127 Maximum rated speed. The maximum rated speed of an incline elevator, measured along the incline, is 0.381 m/s (75 ft./min.).

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24127, filed 8/31/18, effective 10/1/18.]

Commented [CAR(177): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(178): Changes to update measurement conversion to coincide with the national standard.

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24133 Car enclosures. Car enclosures shall be:

(1) Enclosed on all sides, except at the entrance, to a height of at least 1066.8 mm (42 in.);

(2) Enclosed with a type of material that will reject a 38.1 mm (1.5 in.) diameter ball;

(3) Securely fastened to the car platform so that it cannot become loose or displaced due to ordinary service, application of the car safety, or car contact with a buffer;

(4) Built to withstand a 75 lb. pressure, horizontally applied at any point on the wall, without causing a wall deflection that reduces running clearance below (~~3/4 in.~~) 19.05 mm (0.75 in.) or above 25.4 mm (1 in.);

(5) Weather resistant plastic and tempered safety glass may be used in car enclosures.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24133, filed 8/31/18, effective 10/1/18.]

Commented [CAR(179): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(180): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(181): Changes to update measurement conversion to coincide with the national standard.

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24136 Car doors and gates.

(1) All car entrances

Commented [CAR(182): Changes to update measurement conversion to coincide with the national standard.

shall be protected by a door or gate. The height of the door or gate shall be at least 1066.8 mm (42 in.) and equal to the height of the car enclosure. Doors and gates may be of either a solid design or an openwork design. If of an openwork design, the door or gate shall be able to reject a 76.2 mm (3 in.) diameter ball. After the effective date of these rules the diameter will be reduced to 38.1 mm (1.5 in.).

(2) Car doors or gates shall be equipped with an electric contact that prevents the elevator from operating unless the door or gate is securely closed. If the gate is a swing type opening outward from the car, the electric contact shall not be made until the gate is securely latched.

(3) All car doors or gates shall be manually operated.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24136, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24139 Capacity and data plates.

(1) The manufacturer

Commented [CAR(183)]: Changes to update measurement conversion to coincide with the national standard.

shall install a weather resistant capacity plate. It shall be securely fastened to the car in a conspicuous place and state the car's rated load in pounds using letters at least (~~1/4 in.~~) 19.05 mm (0.75 in.) high.

(2) The manufacturer shall install a metal data plate showing the car's weight, speed, suspension means data, manufacturer's name and date of installation. The data plate shall be securely fastened in a conspicuous place in the machine area.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24139, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24142 Guide rails, track supports and fastenings.

(1) Guides, guide rails, guide rail brackets, splice plates, and fastenings shall be made of steel or other metals conforming to the requirements of this section.

(2) Guides, guide rails, guide rail brackets, and their

Commented [CAR(184)]: Changes to update measurement conversion to coincide with the national standard.

fastenings and supports shall, at the point of support, deflect (~~1/8~~

~~in.)~~) 3.175 mm (0.125 in.) or less while resisting horizontal forces encountered during loading. When horizontal force is measured at a midpoint between brackets, guide rails shall deflect (~~(1/4 in.)~~) 6.35 mm (0.25 in.) or less in any direction. Fixed, suspended cable guides shall be permitted to be used as guide members. When cable guides are used, the deflection is to be specified by the manufacturer and approved by the structural engineer licensed in the state of Washington.

(3) The top and bottom of each guide or guide rail run shall not allow a car and counterweight guiding members to travel beyond the guide rail ends.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24142, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24148 Safeties and governors. (1) All inclined private residence elevators shall be equipped with a safety capable of stopping and sustaining a car carrying its rated load.

(a) Elevator safeties shall be type "A" or "B" or other devices approved by the department and shall be operated by a speed governor.

(b) Elevator safeties shall operate independently of governor speed action and without delay when a hoist rope breaks.

(2) Governors shall operate to set the safety at a maximum of 140 percent of rated speed. Upon slackening of the hoist ropes the safety shall set without appreciable delay and independently of the speed governor.

(a) The governor shall be located where:

(i) The governor will not be struck by the car or counterweight if over-travel occurs;

(ii) All parts can freely and fully move;

(iii) The governor is accessible for a complete examination.

(b) Governors are required to be of the mechanical type; and

(c) Belt driven governors shall be monitored. In the case of belt breakage or disengagement, the car shall be shut down.

(3) If ropes are used, the ropes shall be made of iron, steel, monel metal or phosphor bronze and be at least (~~1/4 in.~~) 6.35 mm (0.25 in.) in diameter. Tiller rope construction shall not be used.

Commented [CAR(185): Changes to update measurement conversion to coincide with the national standard.

(4) Motor-control circuits and brake-control circuits shall be opened either before the safety applies or at the time the safety applies.

(5) All safeties shall apply mechanically; electrically operated safeties shall not be used.

(6) All winding drum type inclined elevators that use rope suspensions shall be equipped with a manually reset slack-rope device. During a car's descent, if the travel of the car is obstructed and the hoisting ropes go slack, the slack-rope device shall stop power to the elevator motor and brake.

(7) Cast iron shall not be used to build any elevator safety part that stops and sustains the elevator.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24148, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24154 Driving machines and sheaves. (1) Winding drums, traction sheaves, overhead sheaves and deflecting sheaves shall:

(a) Be made of cast iron or steel;

(b) Have diameters at least 30 times the diameter of the wire hoisting ropes; and

(c) Have machined rope grooves.

EXCEPTIONS:

- If 8 x 19 steel ropes are used, drum and sheave diameters are permitted to be reduced to 21 times the diameter of the hoisting rope.
- Existing incline lifts suspended by cables are not required to have machine grooves, except for the first row of cables wrapped on the drum and a tracking device shall be required to monitor the winding of the cable on the drum.
- On existing inclined lifts suspended by cables that do not have machine grooves on the drum, the first layer of ropes will be recognized as providing the same traction as grooves, provided that this layer remains on the drum at all times and is not allowed to wind out. Such lifts shall be provided with a rope tracking device to ensure that the rope does not wind over itself on the drum.

(2) The factor of safety, based on the static load (the rated load plus the weight of the car, ropes, counterweights, etc.) to be used in the design of driving machines and sheaves, shall be at least:

(a) 8 For driving machines and sheaves built of wrought iron and steel; or

(b) 10 For driving machines built of cast iron, cast steel or other materials.

(3) Set screw type fastenings shall not be substituted for keys or pins if connections are subject to torque or tension.

(4) Gears:

(a) When connecting drums or sheaves to the main driving gear, friction gears, clutch mechanisms or couplings shall not be used.

(b) Worm gears having cast iron teeth shall not be used.

(5) Brakes:

(a) Electric brakes shall be of the friction type set by springs and shall release electrically.

(b) All brakes shall be able to stop and hold an elevator carrying 125 percent of its rated load.

(c) At least one brake shall be mounted so that the drum will hold the rated load in the case of gearbox failure.

(d) If a single ground or short-circuit, a counter-voltage or a motor field discharge occurs and the operating device is set in the stop position, the brake magnet shall set the brake.

(6) Driving machines:

(a) A driving machine shall be permitted to be mounted on an elevator chassis or in a remote location. However, if mounted in a remote location, all sheaves and sprockets shall be guarded and positioned so the hoisting ropes and chains remain properly aligned while the elevator is in use.

(b) Screw type machines shall not be used.

(c) Hydraulic driving machines shall conform to ASME A17.1/CSA
B44.

Commented [CAR(186): Changes to clarify the code reference. No change to existing requirements.

(d) Roped-hydraulic machines shall be permitted to be used.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24154, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24163 Suspension means. (1) When a chassis is suspended from a driving machine by a wire rope, a single method of suspension may be used. The suspension means shall be any one of the following:

- (a) Steel elevator wire rope;
- (b) Steel aircraft cable; or
- (c) Roller chain conforming to ANSI transmission roller chains and sprocket teeth.

(2) Steel tapes shall not be used as a suspension method.

(3) The minimum diameter of hoist ropes or cables shall be (~~1/4 in.~~) 6.35 mm (0.25 in.) galvanized elevator wire rope and (~~3/16 in.~~) 4.7752 mm (0.188 in.) aircraft cable.

(4) Factor of safety:

(a) The minimum factor of safety for a suspension method shall be not less than 8 based upon the rope tension while elevating a car carrying its rated load.

(b) In no case, shall the rated breaking strength of the rope be less than 4,000 lbs.

Commented [CAR(187): Changes to update measurement conversion to coincide with the national standard.

(5) The contact arc of a wire rope on a traction sheave shall be sufficient to produce adequate traction under all load conditions.

(6) All wire ropes anchored to a winding drum shall have at least one full turn of rope on the drum when the car or counterweight reaches its over-travel limit.

(7) The winding drum ends of car and counterweight wire ropes shall be secured by:

- (a) Clamps on the inside of the drum;
- (b) Return loop;
- (c) Properly made individual tapered babbitted sockets; or
- (d) Properly attached fittings recommended by wire rope

manufacturers.

U-bolt type clamps shall not be used.

(8) The ends of wire ropes shall be fastened to cars or counterweights by:

- (a) Return loop; or
- (b) Properly made individual tapered babbitted sockets that

conform to ASME A17.1/CSA B44 requirements. (The diameter of the hole in the small end of the socket shall not exceed the nominal diameter of the rope by more than (~~3/32 in.~~) 2.3876 mm (0.094 in.)); or properly attached fittings recommended by wire rope manufacturers.

Commented [CAR(188): Changes to update measurement conversion to coincide with the national standard.

U-bolt type clamps shall not be used.

(9) Rope repair:

(a) Car and counterweight wire ropes shall not be lengthened or repaired by splicing.

(b) If a single wire rope in a set is worn or damaged and needs to be replaced, the entire set shall be replaced.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24163, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24221 Bumpers and buffers. Solid bumpers or spring type buffers may be used.

(1) Solid bumpers shall:

(a) Be built of wood or other suitable resilient material;

(b) Have the ability to resist deterioration from weather; and

(c) Have sufficient strength to withstand, without failure, the impact of a descending conveyance carrying its rated load or counterweight while traveling at 115 percent of its rated speed.

(2) Spring type buffers, if used, shall:

(a) Be built with a minimum stroke of ~~((3/4 in.))~~ 19.05 mm (0.75 in.) and with a maximum stroke of ~~((1-1/2 in.))~~ 38.1 mm (1.5 in.); and

(b) Not fully compress when struck by the conveyance carrying its rated load or counterweight and traveling at 115 percent of its rated speed.

(3) Inclined private residence conveyances for transporting property are not required to have bumpers and buffers except when obstructions are encountered.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24221, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24231 Rated speed. The maximum rated speed of an inclined conveyance, measured along the incline, is ~~((75 ft./min.))~~ 0.381 m/s (75 ft./min.).

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24231, filed 8/31/18, effective 10/1/18.]

Commented [CAR(189): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(190): Changes to update measurement conversion to coincide with the national standard.

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24237 Car enclosures. (1) Car enclosures are not required; however, if provided, the car enclosure shall be:

(a) Securely fastened to the car platform so that it cannot become loose or displaced due to ordinary service, application of the conveyance safety, or from the conveyance coming into contact with the buffer.

(b) Built to withstand a 75 lb. pressure, horizontally applied to any point on the wall, without causing deflection to the wall that reduces running clearance below ~~((3/4 in.))~~ 19.05 mm (0.75 in.) or above 25.4 mm (1 in.).

(2) If glass or plastic is used in the car enclosure, it shall be weather resistant plastic or tempered safety glass.

(3) Where there is no car enclosure, a means shall be provided to secure all materials to the platform.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24237, filed 8/31/18, effective 10/1/18.]

Commented [CAR(191): Changes to update measurement conversion to coincide with the national standard.

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24240 Capacity and data plates.

(1) The manufacturer

Commented [CAR(192): Changes to update measurement conversion to coincide with the national standard.

shall install a weather resistant capacity plate. It shall be securely fastened to the conveyance in a conspicuous place and state the conveyance's rated load in pounds using letters at least ~~((1/4 in.))~~ 6.35 mm (0.25 in.) high.

(2) The manufacturer shall install a metal data plate showing the conveyance's weight, speed, suspension means data, manufacturer's name and date of installation. The data plate shall be securely fastened in a conspicuous place in the machine area.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24240, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24243 Guide rails, track supports, and fastenings.

(1) Guides, guide rails, guide rail brackets, splice plates, and

fastenings shall be made of steel or other metals conforming to the requirements of this section.

(2) Guides, guide rails, guide rail brackets, and their

fastenings and supports shall, at the point of support, deflect (~~1/8 in.~~) 3.175 mm (0.125 in.) or less while resisting horizontal forces encountered during loading. When horizontal force is measured at a midpoint between brackets, guide rails shall deflect (~~1/4 in.~~) 6.35 mm (0.25 in.) or less in any direction.

(3) The top and bottom of each guide or guide rail run shall not allow the conveyance and counterweight guiding members to travel beyond the guide rail ends.

(4) Guides for inclined private residence conveyances shall have no more stresses and deflection than allowed by the manufacturer's specifications.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24243, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

Commented [CAR(193): Changes to update measurement conversion to coincide with the national standard.

WAC 296-96-24255 Drive machines, sheaves and brakes. (1) All

new winding drums, traction sheaves, overhead sheaves and deflecting sheaves shall:

(a) Be made of cast iron or steel;

(b) Have diameters at least 30 times the diameter of the wire hoisting ropes;

EXCEPTION: If 8 x 19 steel ropes are used, drum and sheave diameters may be reduced to 21 times the diameter of the hoisting rope.

(c) Have machined rope grooves.

(2) The factor of safety, based on the static load (the rated load plus the weight of the car, ropes, counterweights, etc.) to be used in the design of driving machines and sheaves, shall be at least 5.

(3) Set screw type fastenings shall not be substituted for keys or pins if connections are subject to torque or tension.

(4) Gears:

(a) When connecting drums or sheaves to the main driving gear, friction gears, clutch mechanisms or couplings shall not be used.

(b) Worm gears having cast iron teeth shall not be used.

(5) Brakes:

(a) Electric brakes shall be of the friction type set by springs and shall release electrically.

(b) All brakes shall be able to stop and hold a car carrying 125 percent of its rated load.

(c) At least one brake shall be mounted on the load side of the driving machine's worm shaft. On indirectly driven lifts, brakes shall engage when the driving machine fails.

(d) If a single ground or short-circuit, a counter-voltage or a motor field discharge occurs and the operating device is set in the stop position, the brake magnet shall set the brake.

(6) Driving machines:

(a) A driving machine may be mounted on a conveyance chassis or in a remote location. However, if mounted in a remote location all sheaves and sprockets shall be guarded and positioned so the hoisting ropes and chains remain properly aligned while the conveyance is in use.

(b) Screw type machines shall not be used.

(c) Hydraulic driving machines shall conform to ASME A17.1/CSA
B44.

(d) Roped-hydraulic machines may be used.

(e) Rack and pinion drive may be used.

EXCEPTION: Existing inclined private residence conveyances for transporting property may use wrapped cable drums as long as they do not show signs of excessive wear.

Commented [CAR(194): Adds new language to reference the full ASME A17.1/CSA B44 national code, which is the proper reference.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24255, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24264 Suspension means. (1) When a chassis is suspended from a driving machine by a wire rope, a single method of suspension may be used. The suspension means may be any one of the following:

- (a) Steel elevator wire rope;
- (b) Steel aircraft cable; or
- (c) Roller chain conforming to ANSI transmission roller chains and sprocket teeth.

(2) Steel tapes shall not be used as a suspension method.

(3) The minimum diameter of hoist ropes or cables shall be ((1/4 in.)) 6.35 mm (0.25 in.) galvanized elevator wire rope and ((3/16 in.)) 4.7752 mm (0.188 in.) aircraft cable.

(4) Factor of safety:

Commented [CAR(195): Changes to update measurement conversion to coincide with the national standard.

(a) The minimum factor of safety for a suspension method is 5 based upon the rope tension while elevating the elevator carrying its rated load.

(b) In no case, shall the rated breaking strength of the rope be less than 4,000 lbs.

(5) The contact arc of a wire rope on a traction sheave shall be sufficient to produce adequate traction under all load conditions.

(6) All wire ropes anchored to a winding drum shall have a least one full turn of rope on the drum when the car or counterweight reaches its over-travel limit.

(7) The winding drum ends of car and counterweight wire ropes shall be secured by:

- (a) Clamps on the inside of the drum;
- (b) Return loop;
- (c) Properly made individual tapered babbitted sockets; or
- (d) Properly attached fittings recommended by wire rope

manufacturers.

U-bolt type clamps shall not be used.

(8) The ends of wire ropes shall be fastened to cars or counterweights by:

- (a) Return loop;

(b) Properly made individual tapered babbitted sockets that

conform to ASME A17.1/CSA B44 requirements (the diameter of the hole in the small end of the socket shall not exceed the nominal diameter of the rope by more than (~~3/32 in.~~) 2.3876 mm (0.094 in.)); or

(c) Properly attached fittings recommended by wire rope manufacturers.

U-bolt type clamps shall not be used.

(9) Rope repair:

(a) Car and counterweight wire ropes shall not be lengthened or repaired by splicing.

(b) If a single wire rope in a set is worn or damaged and needs to be replaced, the entire set shall be replaced.

(10) A metal or plastic data tag shall be securely attached to one of the wire rope fastenings each time the ropes are replaced or reshackled. The data tag shall include:

(a) The diameter of the ropes in inches; and

(b) The manufacturer's rated breaking strength.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24264, filed 8/31/18, effective 10/1/18.]

Commented [CAR(196): Changes to update measurement conversion to coincide with the national standard.

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24279 Additional requirements. (1) All inclined private residence conveyances for transporting property shall be equipped with:

- (a) A manual method capable of moving the conveyance in accordance with ASME A17.1/CSA B44; and
- (b) A machine brake with a lever to release the brake allowing movement by use of the manual method.

(2) Machinery spaces shall be protected from weather and accidental contact. Machinery spaces shall be locked.

(3) Metal signs stating, "NO RIDERS" in 50.8 mm (2.0 in.) letters shall be conspicuously posted and permanently attached to the conveyance and at each landing.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24279, filed 8/31/18, effective 10/1/18.]

Commented [CAR(197): Changes to update measurement conversion to coincide with the national standard.

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-24457 Up-limit stop devices. (1) Two separate

automatic stop devices shall be provided to cut off the power and apply the brake when a loaded step passes the upper terminal landing. One of these devices shall consist of a switch mechanically operated by the belt or step roller. The second device shall consist of any of the following:

(a) A roller switch located above but not in line with the first switch;

(b) A photocell and light source (an "electric eye"); or

(c) A switch activated by a lever, bar, rod, or plate.

(i) If a plate is used, it shall be positioned above the head pulley so it barely clears a passing step.

(ii) If a bar is used, the bar shall be of the "breakaway" type.

(2) The stop device shall stop the lift before a loaded step reaches a point 609.6 mm (24 in.) above the top terminal landing.

(3) Once the lift has stopped, the automatic stop device shall be manually reset. Therefore, this device shall be located on the top landing where the person resetting the device has a clear view of both the "up" and "down" runs of the lift; and it shall be impossible to reset from a step.

Commented [CAR(198): Changes to update measurement conversion to coincide with the national standard.

(4) Stop devices shall comply with the requirements found in the current adopted edition of ASME A90.1.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-24457, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-24457, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-24500 Scope. (1) These requirements apply to electric manlifts installed prior to January 1, 1999, in facilities in which agricultural products are stored, food products are processed, goods are manufactured, energy is generated, or similar industrial or agricultural processes are performed.

(2) Where a special purpose personnel elevator was installed after January 1, 1999, the conveyance shall comply with the requirements for a special purpose elevator found in the edition of ASME A17.1 or ((A17.1/B44)) A17.1/CSA B44 Section 5.7 that was in effect at the time.

Commented [CAR(199): Changes to clarify the code reference. No change to existing requirements.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-24500, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-24500, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24519 Hoistway and landing construction. (1) A

hoistway shall be fully enclosed, or enclosed on all landings to a height of 1828.8 mm (72 in.) above the landing floor or 1828.8 mm (72 in.) above the highest working level or stair level adjacent to the hoistway.

(2) Perforated enclosures may be used where fire resistance is not required. However, such enclosures shall be constructed of at least No. 13 U.S. gauge steel wire, if a steel wire grill or expanded metal grill type, and have openings that reject a 25.4 mm (1 in.) diameter ball.

(3) Adequate lighting shall be provided at each landing and in the hoistway.

Note: For purposes of this section "adequate lighting" means 5 foot-candles.

(4) Emergency evacuation ladders when installed:

Commented [CAR(200): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(201): Changes to update measurement conversion to coincide with the national standard.

(a) Shall provide access to an emergency exit.

(b) Shall be located in a position so that in an emergency a person can safely transfer from the car platform to the ladder.

Note: Transfer is considered safe when a person can maintain 3 points of contact while making the transfer.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24519, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24522 Hoistway doors and gates. (1) Gates may be

constructed of wood slat, steel wire grill, expanded metal or solid material provided that all openings reject a 50.8 mm (2 in.) diameter ball and resist a 250 lb. horizontal thrust.

(a) Steel wire and expanded metal gates shall be constructed of at least No. 13 U.S. gauge steel.

(b) Wood slat gates shall have slats at least 50.8 mm (2 in.) wide and (~~1/2 in.~~) 12.7 mm (0.5 in.) thick, nominal size.

(c) Solid material gates shall be constructed of at least (~~1/8 in.~~) 3.175 mm (0.125 in.) reinforced sheet steel or (~~1/2 in.~~) 12.7 mm (0.5 in.) plywood.

Commented [CAR(202): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(203): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(204): Changes to update measurement conversion to coincide with the national standard.

(2) Gates may be horizontal swinging, vertical or horizontal sliding or biparting types, and shall:

(a) Span the full width of the elevator car;

(b) Extend from 25.4 mm (1 in.) above the landing floor to at least 1828.8 mm (72 in.) above it;

(c) Not swing into the hoistway.

(3) Hoistway doors shall be closed before the car can leave the landing. Once the car leaves the landing, the door shall be latched so that it will not open when the elevator is not at the landing.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24522, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24525 Car enclosures and frames. Elevator cars shall be fully enclosed to the car height or to a height of at least 1981.2 mm (78 in.), whichever is greater.

(1) If constructed of solid materials, cars shall be capable of withstanding a horizontal thrust of 75 lbs. while deflecting no more than (~~1/4 in.~~) 6.35 mm (0.25 in.).

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Commented [CAR(206): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(207): Changes to update measurement conversion to coincide with the national standard.

(2) If constructed of perforated materials, all openings shall be capable of rejecting at least a 25.4 mm (1 in.) diameter ball.

Commented [CAR(208): Changes to update measurement conversion to coincide with the national standard.

(3) Car frames shall be of substantial metal or wood construction.

(a) Metal frames shall have a safety factor of 4.

(b) Wood frames shall have a safety factor of 6.

(c) Wood frames shall be constructed with gussets and bolts secured with large washers, lock washers and nuts.

(4) Cars shall have platforms whose inside dimensions do not exceed 762 mm (30 in.) on each side (6.25 ft²).

Commented [CAR(209): Changes to update measurement conversion to coincide with the national standard.

(5) Cars shall have substantial protective tops. These tops:

(a) May have hinged front halves.

(b) Shall be made of No. 9 U.S. wire-gauge screen, No. 11 gauge expanded metal, No. 14 gauge sheet steel, or (~~1/4 in.~~) 6.35 mm (0.25 in.) or heavier plywood.

Commented [CAR(210): Changes to update measurement conversion to coincide with the national standard.

(c) If made of wire screen or metal with openings shall reject a (~~1/2 in.~~) 12.7 mm (0.5 in.) diameter ball.

Commented [CAR(211): Changes to update measurement conversion to coincide with the national standard.

(6) A properly working fire extinguisher shall be present in each car.

(7) A sign bearing the following information shall be posted in a conspicuous place within the car:

- (a) Total load limit in pounds;
- (b) Maximum capacity one or two persons where applicable;
- (c) "For authorized personnel use only."

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24525, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-24528 Car doors and gates. (1) All electric manlifts shall have car doors, except on fully enclosed hoistways equipped with hoistway gates and enclosed from the top of the hoistway opening to the ceiling on the landing side.

(2) Car doors shall be:

(a) Constructed of solid or perforated material capable of resisting a 75 lb. thrust without deflecting (~~1/4 in.~~) 6.35 mm (0.25 in.). If perforated material is used, it shall reject a 1 in. diameter ball.

(b) Biparting or otherwise horizontally swung provided the door swings within the elevator car.

(c) All car doors or gates equipped with an electric contact.

Commented [CAR(212): Changes to update measurement conversion to coincide with the national standard.

(d) An electrical and mechanical interlock provided when a safe means of self-evacuation (a ladder) is not provided.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-24528, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-24528, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24531 Counterweight enclosures, counterweight and fastenings. All counterweights shall be fully enclosed at landings or at the path of travel where inadvertent contact can occur.

(1) At the bottom of a counterweight enclosure, there shall be an inspection opening large enough to allow the inspection of cable fastenings, counterweight and buffer.

(2) Sectional rectangular shaped counterweights shall be secured by at least two, (~~1/2 in.~~) 12.7 mm (0.5 in.) mild steel bolts with lock nuts.

Commented [CAR(213): Changes to update measurement conversion to coincide with the national standard.

(3) Sectional round counterweights shall be fastened with a center bolt at least (~~3/4 in.~~) 19.05 mm (0.75 in.) in diameter and secured with a lock nut.

Commented [CAR(214): Changes to update measurement conversion to coincide with the national standard.

(4) All bolt eyes shall be welded closed.

(5) Cable fastening shall be by babbitted tapered elevator sockets or other acceptable methods. If cable clamps are used, a minimum of three cable clamps shall be provided. U-shaped clamps shall not be acceptable.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24531, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24534 Guide rails. Each elevator shall be equipped with at least 2 guide rails. Guide rails shall:

(1) Extend at least 152.4 mm (6 in.) beyond the maximum travel distance of the car with the buffers compressed.

(2) Be securely fastened to a vertical support for the full length of the elevator's travel.

(3) Be constructed of vertical grain fir or steel:

(a) If constructed with vertical grain fir, the rails shall be at least ~~((1 1/2 in. x 1 1/2 in.))~~ 38.1 mm (1.5 in.) x 38.1 mm (1.5 in.)

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Commented [CAR(216): Changes to update measurement conversion to coincide with the national standard.

and not vary in thickness by more than (~~3/16 in.~~) 4.7752 mm (0.188 in.) on brake surfaces.

(b) If constructed of steel, it shall meet the requirements of subsections (4) and (5) of this section.

(4) Be able to resist a 250 lb. horizontal thrust.

(5) Be able to resist more than (~~1/2 in.~~) 12.7 mm (0.5 in.)

total deflection when the car safety is applied.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24534, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-24537 Suspension means. (1) There shall be at least 2 hoisting ropes. Each rope shall be:

(a) Made of a good grade of elevator traction wire rope;

(b) At least (~~3/8 in.~~) 9.525 mm (0.75 in.) in diameter and

possessing a safety factor of 5;

(c) Fastened by babbitted tapered elevator sockets or other acceptable methods. If cable clamps are used, a minimum of 3 fist grip

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Commented [CAR(218): Changes to update measurement conversion to coincide with the national standard.

or equivalent clamps shall be provided. U-shaped clamps shall not be acceptable.

(2) The car platform shall not be more than 152.4 mm (6 in.)

above the top landing when the counterweight buffer is fully compressed. The counterweight shall be a minimum of ~~((150))~~ 152.4 mm (6 in.) from the deflector sheave when the car buffer is fully compressed.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-24537, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-24537, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-24543 Car safeties. All cars suspended or operated from overhead machinery shall be equipped with an approved car safety capable of stopping and holding the car while carrying its rated load.

(1) Car safeties shall be mechanically operated and not be affected by any interruptions in the electrical circuit.

Commented [CAR(219): Changes to update measurement conversion to coincide with the national standard.

(2) Car safeties and governor controlled safeties shall operate automatically and the control circuit shall be interrupted in the event the safeties set.

(3) All electric manlifts shall be equipped with an overspeed governor that shall not exceed 0.889 m/s (175 ft./min.) and shall deenergize the brake control and motor drive circuits simultaneously when the car safety mechanism is activated.

Commented [CAR(220): Changes to update measurement conversion to coincide with the national standard.

(4) Winding drum type machines shall have a manual-reset slack rope device that interrupts the drive motor and brake circuits.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-24543, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-24543, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-24553 Drive machines. (1) Electric manlifts shall be driven by approved-type units.

(a) On direct drive or approved worm gear driven type, a mechanically actuated, electrically released brake shall be installed on the driving unit.

(b) On V belt driven types, a minimum of 4 belts, (~~1/2 in.~~)

Commented [CAR(221): Changes to update measurement conversion to coincide with the national standard.

12.7 mm (0.5 in.) minimum size, shall be used to transmit power from the motor to the drive shaft and a mechanically activated, electrically released brake shall be installed on the final drive shaft.

(c) All winding drum machine type elevators shall be equipped with top and bottom final limit switches.

(2) Wherever practical, drive machines shall be installed on the top side of the supporting structure.

(3) All components of the driving mechanism and parts subject to stress involved in suspending the load or related equipment shall be designed to withstand 8 times the total weight to be suspended, including load, counterweight, car and cables.

(4) Gears shall be made of steel or equivalent material. Cast iron gears are prohibited.

(5) A working platform, with railings complying with the applicable requirements adopted according to chapter 49.17 RCW, shall be provided to allow for safely working on equipment.

(6) A light with a switch shall be located near the elevator driving machine or the machinery space.

(7) A means to lockout/tagout the manlift equipment shall be provided and located near the driving machine or machine space.

(8) The manlift machinery shall be protected from the weather.

(9) All sheaves shall be appropriately guarded per the requirements adopted according to chapter 49.17 RCW.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-24553, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-24553, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-24560 Additional applicable requirements. (1) Car

speeds shall not exceed 0.635 m/s (125 ft./min.).

(2) Alterations shall conform with the applicable requirements in WAC 296-96-24519 through 296-96-24557.

(3) Electric manlift controls and disconnects shall be accessible and labeled.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-24560, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-24560, filed 8/31/18, effective 10/1/18.]

Commented [CAR(222): Changes to update measurement conversion to coincide with the national standard.

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24620 Landings and entrances. (1) Every landing shall be protected on all sides other than the landing opening side with a standard guard rail and intermediate guard rail. All landings except the bottom landing shall have a toe board installed on all sides except the landing opening side.

(2) All entrances shall be not less than 1981.2 mm (78 in.) in height and in no case may the width exceed the corresponding car dimensions.

Commented [CAR(223): Changes to update measurement conversion to coincide with the national standard.

(3) All entrances shall be provided with an approved maze or with a hoistway gate which shall:

(a) Be at least 914.4 mm (36 in.) in height;

Commented [CAR(224): Changes to update measurement conversion to coincide with the national standard.

(b) Extend downward to within 25.4 mm (1 in.) of the landing

Commented [CAR(225): Changes to update measurement conversion to coincide with the national standard.

sill;

(c) Be of the self-closing type, designed to swing horizontally out from the hoistway and closing against a full jam stop;

(d) Be located within 101.6 mm (4 in.) of the edge of the landing

Commented [CAR(226): Changes to update measurement conversion to coincide with the national standard.

sill;

(e) Have a "DANGER" sign conspicuously posted on the landing side of the hoistway gate; and

(f) Withstand a 250 lb. horizontal thrust.

(4) An automatic safety device which will prevent the car from leaving the landing until manually released by the operator shall be installed at the bottom landing.

(5) Adequate lighting shall be installed and operating at each landing.

Note: For the purpose of this section "adequate lighting" means 5 foot-candles.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24620, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24635 Guide rails. (1) There shall be a minimum of 2 opposing guide rails extending to a point 152.4 mm (6 in.) beyond the full height of travel of the car when the counterweight buffer is fully compressed.

(2) All rails shall be attached by bolts, lag screws or other approved methods to a vertical supporting member which shall not

Commented [CAR(227): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(228): Changes to update measurement conversion to coincide with the national standard.

exceed (~~1/2 in.~~) 12.7 mm (0.5 in.) deflection with the application of a 250 lb. horizontal thrust at any point.

(3) Wood guide rails shall be at least (~~1 1/2 in. x 1 1/2 in.~~)

38.1 mm (1.5 in.) x 38.1 mm (1.5 in.) vertical grain fir or equivalent and shall not vary more than (~~3/16 in.~~) 4.7752 mm (0.188 in.) in thickness on the sides which the brakes contact. All joints shall be kept smooth and even.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24635, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24640 Buffers. (1) Spring buffers shall be installed below the car and counterweights.

(2) The maximum run-by of the car shall not exceed 203.2 mm (8 in.) above the top landing when the counterweight buffer spring is fully compressed.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24640, filed 8/31/18, effective 10/1/18.]

Commented [CAR(229): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(230): Changes to update measurement conversion to coincide with the national standard.

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24645 Car construction. (1) The car shall be built

to the following specifications:

(a) The car platform shall be no greater than 762 mm (30 in.) on either side (6.25 ft²);

(b) The car frame and platform shall be of steel or sound seasoned wood construction and be designed with a safety factor of not less than 4 for metal and 6 for wood, based on a maximum capacity of 250 lbs.;

(c) All frame members shall be securely bolted, riveted or welded and braced. If bolted, lock washers or lock nuts shall be used;

(d) Where wooden frame members are bolted, large washers or metal plates shall be used to minimize the possibility of splitting or cracking the wood.

(2) The sides of the car shall be enclosed by a minimum of 2 safety guard rails with the top rail not less than 914.4 mm (36 in.) nor more than 1066.8 mm (42 in.) from the car floor. Rails shall be capable of sustaining a horizontal thrust of 250 lbs. If solid material is used, it shall be smooth surfaced and not less than (~~1/2~~

Commented [CAR(231): Changes to update measurement conversion to coincide with the national standard.

Commented [CAR(232): Changes to update measurement conversion to coincide with the national standard.

~~in.~~) 12.7 mm (0.5 in.) thickness, if wood; not less than 16 gauge thickness, if steel; and shall be constructed from the car floor to a height of not less than 0.9144 m (3 ft.).

(a) Where the hoistway is not enclosed on the entrance side of the car, a self-locking or drop bar gate shall be provided. The car gate may be of the folding type, horizontally swung, provided it swings into the car enclosure. Drop bar gates shall be of two bar construction, parallelogram type, and conform to requirements specified for car guard rails.

(b) The car gate shall drop into locking slots or be provided with a positive locking type latch capable of withstanding a 250 lb. horizontal thrust.

(3) Every car shall have a substantial protective top. The front half may be hinged. The protective top shall be made from No. 9 U.S. wire gauge screen, No. 11 gauge expanded metal, No. 14 gauge sheet steel, (~~3/4 in.~~) 19.05 mm (0.75 in.) or heavier plywood. If made of wire screen or metal, the openings shall reject a (~~1/2 in.~~) 12.7 mm (0.5 in.) diameter ball.

(4) Every car shall have a proper rack to hold the balance weights. Weights shall be contained in the proper rack when the car is in motion.

Commented [CAR(233): Changes to update measurement conversion to coincide with the national standard.

(5) A sign bearing the following information shall be conspicuously posted within the car:

- (a) Total load limit in pounds;
- (b) "Maximum capacity one person"; and
- (c) "For authorized personnel use only."

(6) Every car shall be equipped with a spring loaded foot brake which:

- (a) Operates independently of the car safeties;
- (b) Operates in both directions and will stop and hold the car and its load; and
- (c) Locks the car in its position automatically whenever the operator releases the pressure on the foot pedal.

(7) Every car shall be equipped with a car safety device which:

- (a) Applies to the sides of the main guide rails; and
- (b) Stops and holds the car and its load immediately when the hoisting rope breaks.

(8) Every car shall have a minimum clearance of 78 in. from the top of the car platform to the bottom edge of the crosshead or any other obstruction.

(9) A tool box with minimum dimensions of 101.6 mm (4 in.) long x 76.2 mm (3 in.) deep shall be provided and firmly attached to the car structure.

Commented [CAR(234): Changes to update measurement conversion to coincide with the national standard.

(10) A fire extinguisher in proper working condition shall be available in the car.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24645, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24650 Counterweights. (1) The assembly of sectional counterweights shall conform to the following requirements:

(a) Rectangular counterweights shall be held together by at least 2 tie rods (~~(1/2 in.)~~) 12.7 mm (0.5 in.) in diameter fastened with lock washers and double nuts or other approved means;

Commented [CAR(235): Changes to update measurement conversion to coincide with the national standard.

(b) One (~~(3/4 in.)~~) 19.05 mm (0.75 in.) rod may be used to hold the sections of a round counterweight together. Any additional sections or weights shall be secured by an approved means.

Commented [CAR(236): Changes to update measurement conversion to coincide with the national standard.

(2) The eye bolt for the rope hitch shall be attached to the counterweight in a manner that will prevent the eye bolt from coming

loose. The eye of eye bolts shall be welded to prevent it from opening.

(3) Every counterweight runway shall be enclosed with substantial unperforated material for its full distance of travel. Inspection openings shall be provided at either the top or bottom of the counterweight runway. These openings shall be substantially covered at all times except when actually being used for inspection of counterweight fastenings.

(4) Workers shall load the counterweight for the proper balance of the heaviest person using the elevator and others shall use compensating weights, which shall be available to maintain a balance.

(5) On elevators with a travel of 22.86 m (75 ft.) or more, a compensation chain or cable shall be installed to maintain the proper balance of the counterweight to the car and load in all positions.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24650, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

Commented [CAR(237): Changes to update measurement conversion to coincide with the national standard.

WAC 296-96-24655 Sheaves and supporting members. (1) The

Commented [CAR(238): Changes to update measurement conversion to coincide with the national standard.

minimum sheave diameter shall be 40 times the diameter of the rope used. For example, a (~~3/8 in.~~) 9.525 mm (0.375 in.) rope requires a 381 mm (15 in.) diameter sheave.

(2) The overhead supporting members shall be designed, based upon impact loads, with a safety factor of:

(a) 9 If wood; and

(b) 5 If steel.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24655, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

WAC 296-96-24660 Suspension means. (1) Hoisting ropes shall be of good grade traction elevator wire rope and shall:

(a) Be not less than (~~3/8 in.~~) 9.525 mm (0.375 in.) in diameter.

Commented [CAR(239): Changes to update measurement conversion to coincide with the national standard.

(b) Provide a safety factor of 5 based on the maximum weight supported.

(c) Be of sufficient length to prevent the counterweight from striking the overhead structure when the car is at the bottom, and prevent the car from striking the overhead before the counterweight is at its lower limit of travel.

(2) Cable fastenings shall be by babbitted tapered elevator sockets or other acceptable methods approved by the department. If cable clamps are used, a minimum of 3 cable clamps shall be provided. U-shaped clamps shall not be acceptable.

Where passed around a metal or other object less than 3 times the diameter of the cable, a thimble of the correct size shall be inserted in the eye.

(3) Approved sockets or fittings with the wire properly turned back and babbitted shall be used in place of clamps noted in subsection ~~((1)(d))~~ (2) of this section.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24660, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 18-18-070, filed 8/31/18, effective 10/1/18)

Commented [CAR(240)]: Changes to update the rule reference.

WAC 296-96-24665 Operating ropes. The operating rope shall be of soft hemp, nylon or cotton at least ~~((3/4 in.))~~ 19.05 mm (0.75 in.) in diameter. It shall be securely fastened at each end and shall be in proper vertical alignment to prevent bending or cutting where it passes through the openings in the platform or the protective top of the car.

[Statutory Authority: Chapter 70.87 RCW. WSR 18-18-070, § 296-96-24665, filed 8/31/18, effective 10/1/18.]

AMENDATORY SECTION (Amending WSR 21-18-096, filed 8/31/21, effective 10/1/21)

WAC 296-96-24670 Hoistway requirements. (1) Escape ladders shall be installed and shall extend the full length of the hoistway.

(a) Ladders shall be installed in a manner to provide access to an emergency exit and shall be located in a position so that in an emergency a person can safely transfer from the car platform to the ladder.

Note: Transfer is considered safe when a person can maintain 3 points of contact while making the transfer.

Commented [CAR(241): Changes to update measurement conversion to coincide with the national standard.

(b) An "IMPAIRED CLEARANCE" sign shall be posted at the bottom of a ladder when the face of the ladder is less than 762 mm (30 in.) from any structure.

Commented [CAR(242): Changes to update measurement conversion to coincide with the national standard.

(2) The minimum clearance between a car side and the hoistway enclosure is 25.4 mm (1 in.).

Commented [CAR(243): Changes to update measurement conversion to coincide with the national standard.

(3) The clearance between a car platform and a landing sill shall be at least (~~(1/2 in.)~~) 12.7 mm (0.5 in.) but not more than (~~(1 1/2 in.)~~) 38.1 mm (1.5 in.).

Commented [CAR(244): Changes to update measurement conversion to coincide with the national standard.

(4) Adequate lighting shall be installed and operating in the path of travel.

Note: For the purpose of this section, adequate lighting shall be 5 fc.

[Statutory Authority: Chapter 70.87 RCW. WSR 21-18-096, § 296-96-24670, filed 8/31/21, effective 10/1/21; WSR 18-18-070, § 296-96-24670, filed 8/31/18, effective 10/1/18.]

REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 296-96-02640
WAC 296-96-18010
WAC 296-96-18011
WAC 296-96-18020
WAC 296-96-18030

Inclined commercial stairway chair lifts.
Definition.
Minimum maintenance requirements.
Car and platform enclosures.
Electrical wiring requirements.

Commented [CAR(245): Repeal of the rules for inclined commercial stairway chair lifts because commercial stairway chair lifts fall under the same category or design as residential inclined chairlifts under ASME A18.1, Section 10.4. Changes in the code discontinued listing commercial and residential chairlifts separately - now referred to as only "stairway chairlifts" for both and follow the same standard.

Commented [CAR(246): Repeal of rules (WAC 296-96-18010 through WAC 296-96-18080) pertaining to Boat Launching Elevators, as the Elevator Program is no longer regulating this equipment because there is no longer a need. It is being transferred to the Marine industry. Modernization of equipment no longer falls under this criteria.

WAC 296-96-18040 Brakes.
WAC 296-96-18050 Stop switches and protective devices.
WAC 296-96-18060 Reshackling and refastening of hoisting cables.
WAC 296-96-18070 Hoistway gates and doors.
WAC 296-96-18080 Hoistway enclosures.
WAC 296-96-20010 Minimum maintenance requirements.
WAC 296-96-24700 Scope.
WAC 296-96-24703 Minimum maintenance requirements.
WAC 296-96-24706 Machine rooms and machinery space.
WAC 296-96-24709 Equipment in machine rooms/spaces.
WAC 296-96-24712 Electrical wiring, pipes and ducts in hoistways and machine rooms.
WAC 296-96-24715 Pits.
WAC 296-96-24718 Hoistway door openings.
WAC 296-96-24721 Hoistway door installation.
WAC 296-96-24724 Hoistway door clearances.
WAC 296-96-24727 Hoistway door locking devices.
WAC 296-96-24730 Protection of space beneath hoistway.
WAC 296-96-24733 Car doors and gates.
WAC 296-96-24736 Car enclosure.
WAC 296-96-24739 Construction of car frames and platforms.
WAC 296-96-24742 Connecting car frames to platforms.
WAC 296-96-24745 Capacity.
WAC 296-96-24748 Driving machines.
WAC 296-96-24751 Material and grooving for sheaves and drums.
WAC 296-96-24754 Brakes.
WAC 296-96-24757 Terminal stopping devices.
WAC 296-96-24760 Suspension means.
WAC 296-96-24765 Hydraulic casket lifts.
WAC 296-96-24770 Valves, supply piping and fittings.
WAC 296-96-24775 Stopping devices.
WAC 296-96-24780 Operating devices.

Commented [CAR(247)]: Repeal of rules (WAC 296-96-20010 through WAC 296-96-24700), as there is no national standard for mechanized parking garages for regulation by the Elevator Program.

Commented [CAR(248)]: Repeals the rules (WAC 296-96-24703 through WAC 296-96-24780), as there is no national standard for casket lifts for regulation by the Elevator Program.