

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-00600 ((What rules apply to your conveyance?)) Application of adopted standards and rules.** ((Elevators and other conveyances must 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the department that were in effect at the time the conveyance was permitted, regardless of whether the rule(s) has been repealed, unless any new rule specifically states that it applies to all conveyances, regardless of when the conveyance was permitted.)) Conveyances are required to comply with rules and standards that:

- (1) Were in effect at the time of the original installation; or
- (2) Were in effect at the time of any alteration;
- (3) Apply to new and existing elevators (see ASME A17.1/CSA B44 1.1.3); and
- (4) ASME A17.3, Safety Code for Existing Elevators and Escalators and chapter 296-96 WAC, Part D.

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

((Please note, if the conveyance is altered the components associated with the alteration must comply with all of the applicable rules adopted by the department in effect at the time the conveyance alteration was permitted.)) 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.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-00650 ((Which National Elevator Codes and Supplements has the department adopted?)) Adopted standards.**

<b>((NATIONAL)) ELEVATOR CODES AND SUPPLEMENTS ADOPTED</b>				
<b>TYPE OF CONVEYANCE</b>	<b>((NATIONAL)) CODE AND SUPPLEMENTS</b>	<b>DATE INSTALLED</b>		<b>COMMENTS</b>
		<b>FROM</b>	<b>TO</b>	
Elevators, Dumbwaiters, Escalators	American Standard Safety Code (ASA) A17.1, ((+1962)) 1960	11/1/1963	12/29/1967	Adopted Standard

<b>NATIONAL ELEVATOR CODES AND SUPPLEMENTS ADOPTED</b>				
<b>TYPE OF CONVEYANCE</b>	<b>CODE AND SUPPLEMENTS</b>	<b>DATE INSTALLED</b>		<b>COMMENTS</b>
		<b>FROM</b>	<b>TO</b>	
Moving Walks	American Standard Safety ((Association)) 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)) USAS ((A17-1, 1965;)) A17.1-1965 Supplements ((A17.1a, 1967; A17.1b, 1968; A17.1c, 1969;)) A17.1a-1967 A17.1b-1968 A17.1c-1969	12/30/1967	2/24/1972	Adopted Standard USAS 1965 includes revision and consolidation of ((A17.1-1, 1960, A17.1a, 1963, and A17.1-13, 1962)) A17.1-1960, A17.1a-1963, & A17.1.13-1962. Adopted code and supplements, excluding Appendix E ((and)) & ANSI ((A17.1d, 1970)) A17.1-1970.

<b>NATIONAL ELEVATOR CODES AND SUPPLEMENTS ADOPTED</b>				
<b>TYPE OF CONVEYANCE</b>	<b>CODE AND SUPPLEMENTS</b>	<b>DATE INSTALLED</b>		<b>COMMENTS</b>
		<b>FROM</b>	<b>TO</b>	
Elevators, Dumbwaiters, Escalators, and Moving Walks	American National Standards Institute ((ANSI A17.1, 1971)) <u>A17.1-1971</u>	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)) <u>A17.1-1971; A17.1a-1972</u>	2/25/1972	6/30/1982	Adopted Supplement
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI ((A17.1, 1981)) <u>A17.1-1981</u>	7/1/1982	1/9/1986	Adopted Standard
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI ((A17.1a, 1982)) <u>A17.1a-1982</u>	3/1/1984	1/9/1986	Adopted Supplement
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI ((A17.1b, 1983)) <u>A17.1b-1983</u>	12/1/1984	1/9/1986	Adopted Supplement, except portable escalators covered by Part VIII ((of A17.1b, 1983)) <u>A17.1b-1983</u> .
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI ((A17.1, 1984)) <u>A17.1-1984</u>	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)) <u>A17.1a-1985</u>	1/10/1986	12/31/1988	Adopted Supplement
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI ((A17.1b, 1985; A17.1c, 1986; A17.1d, 1986; and A17.1e, 1987)) <u>A17.1b-1985</u> <u>A17.1c-1986</u> <u>A17.1d-1986</u> <u>A17.1e-1987</u>	12/6/1987	12/31/1988	Adopted Supplement
Elevators, Dumbwaiters, Escalators, and Moving Walks	ANSI ((A17.1, 1987)) <u>A17.1-1987</u>	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)) <u>A17.1-1990</u>	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)) <u>A17.1-1993</u>	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)) <u>A17.1-1996</u>	6/30/1998	6/30/2004	Adopted Standard Except Part V, Section 513.
Elevators, Dumbwaiters, Escalators, and Moving Walks	ASME ((A17.1, 2000; A17.1a, 2002; A17.1b, 2003)) <u>A17.1-2000</u> <u>A17.1a-2002</u> <u>A17.1b-2003</u>	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)) <u>A18.1-1999</u> <u>A18.1a-2001</u> <u>A18.1b-2001</u>	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	1/1/2014	
Safety Code for Belt Manlifts	ASME A90.1-2003	1/1/2008	1/1/2014	
Safety Code for Personnel Hoists, Retroactive	ANSI A10.4-2004	1/1/2008	1/1/2014	
Safety Code for Elevators, Escalators, Dumbwaiters, Residential Elevators, Special Purpose	ASME A17.1-2010	1/1/2014	((Current)) <u>8/31/2018</u>	

NATIONAL ELEVATOR CODES AND SUPPLEMENTS ADOPTED				
TYPE OF CONVEYANCE	CODE AND SUPPLEMENTS	DATE INSTALLED		COMMENTS
		FROM	TO	
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	<del>((Current))</del> 8/31/2018	
Safety Code for Belt Manlifts ((Safety))	ASME A90.1-2009	1/1/2014	<del>((Current))</del> 8/31/2018	
Safety Code for Personnel Hoists	ANSI A10.4-2007	1/1/2014	<del>((Current))</del> 8/31/2018	
<u>Safety Code for Elevators, Escalators, Dumbwaiters, Residential Elevators, and Special Purpose</u>	<u>ASME A17.1-2016/CSA B44-16</u>	9/1/2018	Current	
<u>Guide for Inspection of Elevators, Escalators, and Moving Walks</u>	<u>ASME A17.2-2017</u>	9/1/2018	Current	
<u>Safety Code for Existing Elevators and Escalators</u>	<u>ASME A17.3-2015</u>	9/1/2018	Current	
<u>Safety Standards for Platform Lifts and Stairway Chair Lifts</u>	<u>ASME A18.1-2017</u>	9/1/2018	Current	
<u>Safety Code for Belt Manlifts</u>	<u>ASME A90.1-2015</u>	9/1/2018	Current	
<u>Safety Code for Personnel Hoists</u>	<u>ASSE/ANSI A10.4-2016</u>	9/1/2018	Current	
<u>Safety Code for Material Hoists</u>	<u>ASSE/ANSI A10.5-2013</u>	9/1/2018	Current	

**Note:** Copies of codes and supplements can be obtained from the following: The American Society of Mechanical Engineers (ASME), Order Department((-22 Law Drive, Box 2900, Fairfield)) 150 Clove Road, 6th Floor, Little Falls, New Jersey((-07007-2900)) 07424-2138 or by visiting [www.asme.org](http://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](http://www.asse.org).

Comments: ((National)) 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 ((below)) in WAC 296-96-00675.

~~((1) Exclude all references to QEI certification in ASME A17.1 from code adoption.~~

~~(2) Exclude all references and sections to Aramid fiber ropes in ASME A17.1 and A17.6 from code adoption.~~

~~(3) ASME A17.1, 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 this code shall be achieved by:~~

~~(a) Conformance with the requirements in ASME A17.1/CSA B44 and chapter 296-96 WAC. Additions or modifications to ASME A17.1/CSA B44 and/or chapter 296-96 WAC shall require approval from the department; or~~

~~(b) Conformance with a combination of the requirements in ASME A17.1/CSA B44, chapter 296-96 WAC, and ASME A17.7/CSA B44.7 with the following ASME A17.7 inclusions:~~

~~(i) 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. The applicant must submit all code documentation required by ASME A17.7 Section 2.10 and any other documentation as may be requested.~~

~~(ii) Sections of chapter 296-96 WAC that have taken exception to, made additions to, or modifications to ASME A17.1/CSA B44, such exceptions, additions and modifications shall supersede corresponding requirements in ASME A17.7/CSA B44.7.~~

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

~~(iv) The department will post the specific ASME A17.7 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 post the certificate and exceptions including all required information on each conveyance installed utilizing the ASME A17.7 method.~~

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

~~(4) MARINE ELEVATOR SECTION 5.8~~

~~This chapter only applies to elevators installed on board a marine vessel flying the Washington state flag and under one hundred gross metric tons.~~

~~(5) Exclude ASME A17.1 2.4.7.2 reference for clearance reduction.~~

~~(6) Exclude ASME A17.1 5.4 private residence incline elevators and ASME A17.1 7.4, 7.5, 7.6, 7.9, and 7.10 material lifts and their corresponding 8.10.1.1.3.~~

~~(7) Exclude ASME A17.1 2.14.1.5.2 on elevators in partially enclosed hoistways. A top emergency exit shall be required.))~~

## NEW SECTION

**WAC 296-96-00675 Amendments to adopted standards.** (1) Exclude all references to QEI certification in ASME A17.1/CSA B44 from code adoption.

(2) ASME A17.1/CSA B44, 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) Conformance with the requirements in ASME A17.1/CSA B44 as amended by this chapter; or

(b) 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) 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.

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

(iii) 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.

(iv) 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.

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

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

(3) ASME A17.1/CSA B44, Section 5.8, Marine Elevators. This section only applies to elevators installed on board a marine vessel flying the Washington state flag and under one hundred gross metric tons.

(4) ASME A17.1/CSA B44, Section 5.11, Wind Turbine Elevator is not adopted.

(5) Periodic tests and inspections. Pursuant to Req. 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, 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 corrected. A record of findings shall be available to elevator personnel and the authority having jurisdiction. At least once each year, the fire alarm initiating devices associated with elevator recall and shunt trip initiating devices shall be tested to determine if they are still properly interfaced with the elevator control.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-00700 Chapter definitions.** The following definitions apply to this chapter (see RCW 70.87.010 and ASME A17.1/CSA B44 for additional definitions necessary for use with this chapter):

**"ANSI"** means the American National Standard Institute.

**"ASA"** means the American Safety Association.

**"ASME"** means the American Society of Mechanical Engineers.

**"Acceptable proof"** refers to the documentation that ~~((must))~~ is required to be provided to the department during the elevator contractor and mechanic license application and renewal process. ~~((Acceptable proof may include department approved forms documenting years of experience, affidavits, letters from previous employers, declarations of experience, education credits, copies of contractor registration information, etc. Additional documentation may be requested by the department to verify the information provided on the application.))~~

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

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

~~((("Control room" refers to an enclosed control space outside the hoistway of the elevator or dumbwaiter, intended for full bodily entry that contains the motor and motion controller. The room could also contain electrical and/or mechanical equipment used directly in con-~~

nection with the elevator or dumbwaiter, but not the electric driving machine.

**"Control space"** refers to a space outside the hoistway of the elevator, intended to be accessed without full bodily entry, which contains the motor and motion controller. This space could also contain electrical and/or mechanical equipment used directly in connection with the elevator but not the electric driving machine or the hydraulic machine. A control space\* is limited to elevators, dumbwaiters, special purpose, and material lifts. The space shall not share any location, area or room which is also accessible to the general public.

\*Note: A control space must be preapproved and is limited on a case-by-case basis and should not be considered a normal installation process.))

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

((**"Elevator machine room"** means an enclosed machinery room outside the hoistway, intended for full bodily entry that contains the electric driving machine or the hydraulic machine and the motor controller. The room could also contain electrical and/or mechanical equipment used directly in connection with the elevator.

**"Elevator machinery space"** means a space inside or outside the hoistway, intended to be accessed with or without full bodily entry that contains elevator mechanical equipment and could also contain electrical equipment used directly in connection with the elevator. This space could also contain the electric driving machine.))

**"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.

**"Final judgment"** means any money that is owed the department as the result of an individual's or firm's unsuccessful appeal ((of)) or failure to appeal a civil penalty. ((Final judgment also includes any penalties assessed against an individual or firm owed the department as a result of an unappealed civil penalty or any outstanding fees due under chapter 70.87 RCW and this chapter.))

**"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.

**"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 ((at least seventy-five percent of each working day. The ratio of helper to mechanic shall be one-to-one)).

**"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.

**"Layout drawings"** or **"plans"** or **"shop drawings"** means ((engineering)) elevation and plan view drawings that show required clearances and dimensions of elevator equipment in relation to building structure and ((shall include a machine room plan, hoistway plan, hoistway ele-

vation, detail drawings, and general elevator data)) other elevator equipment.

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

"Lockout/tagout" means the placement of a lockout device on an energy isolating device(~~(, in accordance with an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed)~~).

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

"Private residence elevator" ((~~residential elevator~~)) means a power passenger elevator which (~~is limited in size, capacity, rise and speed and~~) is installed in a private residence or multiple dwelling as a means of access to a single private residence (~~provided the elevators are so installed that they are not accessible to the general public or to other occupants in the building~~)).

"Red tag" or "red tag status" means an elevator or other conveyance that has been removed from service and operation because of non-compliance with chapter 70.87 RCW and this chapter or at the request of the owner.

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

"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.

"RCW" means the Revised Code of Washington.

~~(("Tagout" means the placement of a tagout device on an energy isolating device, in accordance with an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed by the individual who established the tag or by a person designated by the chief elevator inspector.))~~ "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).

"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.

"USAS" means the U.S.A. Standards.

"WAC" means the Washington Administrative Code.

AMENDATORY SECTION (Amending WSR 04-12-047, filed 5/28/04, effective 6/30/04)

**WAC 296-96-00800 Advisory committee on conveyances.** (1) The purpose of the advisory committee is to advise the department on the adoption of regulations that apply to conveyances; methods of enforcing and administering the elevator law, chapter 70.87 RCW; and matters of concern to the conveyance industry and to the individual installers, owners and users of conveyances.

(2) The advisory committee consists of seven members appointed by the director or his or her authorized representative.

(3) The committee members shall serve four years. However, if a member is unable to fulfill his or her obligations, a new member may be appointed to fill the remainder of the unexpired term.

(4) The committee shall meet on the third Tuesday of February, May, August, and November of each year, and at other times at the discretion of the chief of the elevator section.

(5) The chief of the elevator section shall be the secretary for the advisory committee.

(6) An advisory committee member may appoint an alternate to attend meetings in case of conflict or illness.

AMENDATORY SECTION (Amending WSR 04-12-047, filed 5/28/04, effective 6/30/04)

**WAC 296-96-00805 Appeal rights and hearings.** (1) Chapter 70.87 RCW provides the authority for the duties and responsibilities of the department. Except as provided in chapter 70.87 RCW and this chapter, all appeals and hearings will be conducted according to chapter 34.05 RCW, the Administrative Procedure Act and chapter 10-08 WAC, Model Rules of Procedure.

(2) A person who contests a notice of violation or infraction issued by the department may request a hearing. The request for a hearing (~~((must))~~) shall be:

(a) In writing;

(b) Accompanied by a certified or cashier's check, payable to the department, for (~~((two hundred dollars))~~) the amount specified in the RCW; and

(c) Postmarked or received by the department within (~~((fifteen))~~) 15 days after the person receives the department's violation notice.

(3) In all appeals of chapter 70.87 RCW and this chapter the appellant has the burden of proof by a preponderance of the evidence.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-01000 (~~((What is the permit process for conveyances?))~~) Permits for new construction and alterations.** (1) Prior to construction, alteration, or relocation of any conveyance, the licensed elevator contractor shall:

(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.

~~((d))~~ (2) Prior to placing a conveyance in service the licensed elevator contractor shall obtain and pass an inspection ~~((prior to placing the conveyance in service. See WAC 296-96-01035.~~

~~(e) Abstain from working without a permit or releasing the conveyance for use without the department's written permission))~~ 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)).

~~((2))~~ (4) The owner ~~((must))~~ shall obtain and renew an annual operating certificate for each conveyance that they own, except for residential conveyances. See WAC 296-96-01065.

~~((3))~~ (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).

AMENDATORY SECTION (Amending WSR 14-06-041, filed 2/26/14, effective 4/1/14)

**WAC 296-96-01005** ~~((When do I need and what are the steps in obtaining a permit?))~~ Obtaining permits. (1) See WAC 296-96-01000 for the permit process.

(2) Construction and alteration permits are valid for one year from the date of issue. However, permits may be renewed if ~~((you))~~:

(a) ~~((Apply))~~ Application for a renewal permit is submitted before ~~((your))~~ the current permit expires;

(b) The department approves ~~((your))~~ the request for a renewal permit; and

(c) ~~((You pay))~~ A renewal fee of \$58.30 ~~((renewal fee))~~ is paid to the department for each permit ~~((you renew))~~ renewed;

(3) If ~~((your))~~ the permit has expired ~~((you must))~~ the applicant shall reapply for a new permit.

(4) See WAC 296-96-01006 for work requiring a permit.

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-01006** ~~((What type of conveyance work requires permitting and inspection?))~~ Work requiring permits. (1) All installations and relocation of conveyances that require~~((s))~~ permitting and inspection~~((All conveyance work must))~~ shall be performed by ~~((an))~~ elevator mechanics licensed to perform work in the appropriate category. (See WAC 296-96-00910.)

(2) ~~((All alterations require permitting, inspection, and must include but are not limited to:~~

~~(a)) Items identified in ASME ((A17.1-~~

~~(b) Any conveyance work that requires the conveyance to be tested prior to being returned to service, including:~~

~~(i) The replacement or repair of any parts, the installation of which would require recalibration or testing (e.g., brakes, hydraulic valves and piping, safeties, door reopening devices, governors, communication systems, cab interiors, car/hall buttons, etc.); or~~

~~(ii) Work performed on components or equipment affecting or necessary for fire and life safety (e.g., cab interiors, systems associated with fire recall, etc.)) A17.1/CSA B44, Section 8.7 as alterations shall require a permit and inspection.~~

(3) Permits and fees are not required for normal function and necessary maintenance ((and)) or repair ((performed with parts of equivalent materials, strength, and design)) or for any conveyance ((exempted by)) exempt under RCW 70.87.200.

Contact the department if you have any questions or need assistance determining if a permit and inspection are required.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-01008 Decommissioning a conveyance.** A licensed elevator mechanic working for a licensed elevator company ((must)) shall decommission the conveyance according to ASME A17.1/CSA B44. If the elevator is the only one in the building and the owner/agent wants the conveyance decommissioned the owner/agent ((must)) shall obtain a letter of approval from the local building official.

**Note:** Decommissioning is not ((dismantling or)) removing the conveyance.

(1) ~~((A conveyance is considered to be in decommissioned status when:~~

~~(a) The power feed lines from the disconnect switch to the controller have been removed; and~~

~~(b) The traction elevator, dumbwaiter, or material lift suspension ropes have been removed, and if applicable, the counterweight rests at the bottom of the hoistway. The hoistway doors, except for the bottom landing, have been permanently barricaded or sealed in the closed position on the hoistway side; and~~

~~(c) A hydraulic elevator, dumbwaiter, or material lift car rests at the bottom of the hoistway; pressure piping has been disassembled and a section removed from the premises; hoistway doors except for the bottom landing have been permanently barricaded or sealed in the closed position on the hoistway side; suspension ropes have been removed and counterweights, if provided, landed at the bottom of the hoistway; and~~

~~(d) The escalator or moving walk entrances have been permanently barricaded.~~

~~(2)) After decommissioning work is complete:~~

~~(a) The elevator mechanic ((must)) shall contact the department to schedule an inspection;~~

~~(b) The department will perform an inspection and send the results and applicable fee to the conveyance owner;~~

(c) Upon inspection and approval by the department, annual inspections will no longer be required, until such time that the conveyance is returned to service.

~~((3) If returning the conveyance to service and prior to operating the conveyance,)~~ (2) Prior to returning a decommissioned conveyance to service an acceptance inspection and temporary operating permit ~~((must))~~ shall be obtained. The conveyance acceptance inspection shall be performed to the code in effect from the date of its original installation ~~((or))~~ and/or alteration.

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-01009** ~~((Who can purchase))~~ Purchasing a permit(?). The department may only issue a permit for conveyance work to a licensed elevator contractor. Permits are only required for alterations, relocations and installations.

AMENDATORY SECTION (Amending WSR 14-06-041, filed 2/26/14, effective 4/1/14)

**WAC 296-96-01010** ~~((What are the installation permit fees for conveyances, material lifts, and hoists and how are they calculated?))~~ Installation and alteration permit fees. ~~((Installation))~~ Permit fees are based on the total cost of the conveyance or alteration and the labor to install or alter the conveyance. The following permit fees apply to the construction, alteration, or relocation of all conveyances ~~((and material lifts))~~ except personnel and material hoists (see WAC 296-96-01025):

TOTAL COST OF CONVEYANCE	FEE
\$0 to and including \$1,000 .....	\$64.30
\$1,001 to and including \$5,000 .....	\$96.50
\$5,001 to and including \$7,000 .....	\$161.20
\$7,001 to and including \$10,000 .....	\$193.60
\$10,001 to and including \$15,000 .....	\$258.30
OVER \$15,000 .....	\$361.60 plus
Each additional \$1,000 or fraction thereof .....	\$8.90

AMENDATORY SECTION (Amending WSR 14-06-041, filed 2/26/14, effective 4/1/14)

**WAC 296-96-01025** ~~((What is the))~~ Permit fees for personnel and material hoists(?). The fee for each personnel hoist or material hoist installation is . . . . . \$258.30

See WAC 296-96-01035(2) for requirements for jumps.

**Note:** An operating certificate is also required for these types of conveyances.

AMENDATORY SECTION (Amending WSR 14-06-041, filed 2/26/14, effective 4/1/14)

**WAC 296-96-01027** ~~((Are initial installation permit fees refundable?))~~ **Permit fee refunds.** ~~((Your))~~ The initial installation permit fees are refundable minus a processing fee if the installation work has not been performed ~~((, minus a processing fee, unless your permits have expired))~~. No refunds will be issued for expired permits. All requests for refunds ~~((must))~~ shall be submitted in writing to the elevator section and ~~((must))~~ shall identify the specific permits and the reasons for which the refunds are requested.

The processing fee for each refund is . . . . . \$38.50

AMENDATORY SECTION (Amending WSR 14-06-041, filed 2/26/14, effective 4/1/14)

**WAC 296-96-01030** ~~((What is the process for installation and alteration))~~ **Plan approval((?)).** Prior to the start of construction and the issuance of a permit, the applicant ~~((must))~~ shall submit to the department for approval ~~((two copies of))~~ plans for new installations or major alterations. To be approved, the plan ~~((must))~~ shall comply with the latest adopted ~~((edition of the American Society of Mechanical Engineers (ASME), the National Electrical Code (NEC))~~ applicable standard and applicable Washington Administrative Code~~((s))~~ (WAC). In addition, the plans ~~((must))~~ shall include all information necessary ~~((in determining))~~ to determine whether each installation/alteration complies with all applicable codes. The permit holder ~~((must))~~ shall keep a copy of the approved plan on the job site until the department has witnessed all acceptance tests. Any alterations to the approved plan ~~((must))~~ shall be submitted to the department for approval before a final inspection will be conducted. The nonrefundable fees for reviewing ~~((your))~~ the plans are~~((+~~

~~For each installation/major alteration. . . . . \$32.00~~  
~~If more than two sets of plans are submitted, the fee for each additional set. . . . . \$12.60))~~  
\$32.00 for each installation/major alteration.

**Exception:** Residential incline chair lifts will not require plan review. Equipment shall be listed and labeled by a product testing laboratory which is accredited by the department and plans supplied by the manufacturer shall be on-site. If the equipment is not listed and labeled as per RCW 19.28.010 it shall be field evaluated or replaced with equipment that is listed and labeled by a product testing laboratory which is accredited by the department.

AMENDATORY SECTION (Amending WSR 14-06-041, filed 2/26/14, effective 4/1/14)

**WAC 296-96-01035** ~~((Are there))~~ **Inspection fees((?)).** ~~((Yes.))~~ The initial ~~((inspection(s) of a conveyance or for the initial))~~ inspection of construction, alteration or relocation of a conveyance is included with ~~((your))~~ the permit fee. Once the department has approved the initial installation of the conveyance ~~((you will be issued))~~ a temporary 30-day operating certificate ~~((that is valid for 30~~

days)) will be issued. Prior to the expiration of the 30-day temporary operating certificate the application for an annual operating certificate and the appropriate fees (~~must~~) shall be paid to the department. Once the department has received the appropriate fees and application the owner will be issued the first annual operating certificate. The owner or (~~owners~~) owner's representative will receive an invoice from the department for renewal. The owner is required to renew the annual operating certificate yearly.

The following inspections require an additional inspection fee:

(1) **Reinspection.** If a conveyance does not pass an initial inspection and an additional inspection is required, the fee for each reinspection of a conveyance is \$129.00 per conveyance plus \$62.60 per hour for each hour in addition to the first hour.

The department may waive reinspection fees.

(2) **Inspecting increases in the height (jumping) of personnel and material hoists.**

The fee for inspecting an increase in the height (jumping) of each personnel hoist or material hoist is \$129.00 plus \$64.30 per hour for each hour in addition to 2 hours. This fee is for inspections occurring during regular working hours.

The permit holder may be allowed to operate a hoist prior to the jump inspection if:

(a) The electrical limits will not allow the lift to operate above the previously inspected landing(~~(-)~~); and

(b) The state elevator inspector is contacted, agrees and can schedule an inspection within 3 days.

(3) **Variance inspections.**

(a) The fee for an on-site variance inspection is \$193.60 per conveyance plus \$64.30 per hour for each hour in addition to 2 hours. This fee is for inspections occurring during regular working hours.

(b) The fee for a variance that does not require an on-site inspection is \$64.30 per conveyance. The individual requesting the variance (~~must~~) shall provide the department with pictures, documentation, or other information necessary for the department to review the variance. The department may conduct an on-site variance inspection to verify the information provided or if it determines that an inspection is necessary. If an on-site variance inspection is performed, the fees in (a) of this subsection will apply.

(4) **"Red tag" status fee.** The annual fee for a conveyance in "Red tag" status is \$32.00.

**Note:** (~~You must provide~~) The department shall be provided with written approval from the building official, indicating that the conveyance is not required for building occupancy, when (~~you apply~~) applying to have the conveyance placed in voluntary red tag status.

(5) **Decommission inspection.** The fee for performing a decommission inspection is \$64.30. Once the decommission inspection has been performed and approved, the conveyance will no longer require annual inspections until such time that the conveyance is brought back into service. Prior to operating the conveyance, a new inspection and annual operating permit (~~must~~) shall be obtained.

(6) **Voluntary inspections by request.** The owner or potential purchaser of a building within the department's jurisdiction may request a voluntary inspection of a conveyance. The fee for this inspection will be \$129.00 per conveyance and \$64.30 per hour for each hour in addition to 2 hours plus the standard per diem and mileage allowance granted to department inspectors. The owner/potential purchaser requesting the voluntary inspection will not be subject to any penalties based on the inspector's findings.

AMENDATORY SECTION (Amending WSR 14-06-041, filed 2/26/14, effective 4/1/14)

~~WAC 296-96-01040 ((What is the fee for testing and inspecting regular elevators used as temporary elevators to provide transportation for construction personnel, tools, and materials only?))~~ Construction-use inspection fee. (1) The fee for the inspecting and testing of (~~regular elevators used as temporary~~) elevators used for construction is \$103.10, in addition to any other fees required in this chapter. This fee purchases a 30-day temporary use permit that may be renewed at the department's discretion.

(2) When this temporary use permit is purchased, a notice declaring that the equipment has not received final approval from the department (~~must~~) shall be conspicuously posted in the elevator.

AMENDATORY SECTION (Amending WSR 14-06-041, filed 2/26/14, effective 4/1/14)

~~WAC 296-96-01045 ((What are the inspection requirements and fees for conveyances in private residences?))~~ Residential elevator inspection and fees. (1) Chapter 70.87 RCW requires the department to inspect all new, altered or relocated conveyances operated exclusively for single-family use in private residences. Prior to installation, a licensed elevator contractor (~~must~~) shall complete a permit application as described in WAC 296-96-01005 and pay the appropriate fee listed in WAC 296-96-01010.

(2) Chapter 70.87 RCW allows the department to inspect conveyances operated exclusively for single-family use in private residences when the department is investigating an accident or an alleged or apparent violation of the statute or these rules.

(3) No annual inspection and operating certificate is required for a private residence conveyance operated exclusively for single-family use unless the owner requests it. When an owner requests an inspection and an annual operating certificate, the following fee (~~must~~) shall be paid prior to an inspection:

TYPE OF CONVEYANCE	FEE
Each inclined stairway chair lift in private residence .....	\$30.00
Each inclined wheel chair lift in a private residence .....	\$30.00
Each vertical wheel chair lift in a private residence .....	\$37.80
Each dumbwaiter in a private residence .....	\$30.00
Each inclined elevator at a private residence ..	\$107.30
Each private residence elevator .....	\$69.10
Duplication of a lost, damaged or stolen operating permit .....	\$12.60

AMENDATORY SECTION (Amending WSR 14-06-041, filed 2/26/14, effective 4/1/14)

**WAC 296-96-01055** (~~((Are technical services available and what is the fee?))~~) Technical services and consultations. (~~((You))~~) A person, firm, corporation, or governmental agency may request elevator field technical services from the department by paying a fee of \$77.30 per hour (including travel time) plus the standard per diem and mileage allowance granted to department inspectors. These field technical services may include code evaluation, code consultation, plan examination, code interpretation and clarification of technical data relating to the application of the department's conveyance rules. Field technical services do not include inspections.

AMENDATORY SECTION (Amending WSR 14-06-041, filed 2/26/14, effective 4/1/14)

**WAC 296-96-01057** (~~((Does the department charge a fee to perform investigations and what is the fee?))~~) Accident investigations. (~~((An elevator inspector))~~) The department shall investigate an injury-related accident reported by the owner or owner's duly authorized agent. The department may charge at a rate of \$77.30 per hour (including travel time) plus the standard per diem and mileage allowance granted to department inspectors. (~~((These services shall include accident investigation relating to any and all accidents. This fee would include an inspection as required during the accident investigation.))~~)

AMENDATORY SECTION (Amending WSR 14-06-041, filed 2/26/14, effective 4/1/14)

**WAC 296-96-01060** (~~((Can I request an after-hours inspection and what is the fee?))~~) Inspections after normal business hours. (~~((You may request))~~) An inspection outside of normal business hours(, which are) and business days (i.e., Monday through Friday excluding holidays; 7:00 a.m. to 5:00 p.m.(, if)) may be requested under the following conditions:

- (1) An inspector is available; and
- (2) The inspection is authorized by the department.
- (3) The minimum fee for an after-hours inspection is \$96.50 and \$96.50 per hour for each hour in addition to the first hour plus the standard per diem and mileage allowance granted to department inspectors.
- (4) This fee is in addition to any other fees required for (~~((your))~~) the project.

**WAC 296-96-01065** (~~(What are the)~~) **Annual operating** (~~(certificate)~~) **permit fees**(~~(?)~~). An annual operating certificate will be issued to (~~you~~) the building owner upon payment of the appropriate fee. The owner of record (~~will~~) shall be invoiced by the department. If a change of (~~owner~~) ownership has occurred, it is the new owner's responsibility to ensure the department has the corrected information. Below is the fee structure table:

TYPE OF CONVEYANCE	FEE
Each hydraulic elevator . . . . .	\$129.00
Each roped-hydraulic elevator . . . . .	\$161.20
plus for each hoistway opening in excess of two . . . . .	\$12.60
Each cable elevator . . . . .	\$161.20
plus for each hoistway opening in excess of two . . . . .	\$12.60
Each cable elevator traveling more than 25 feet without an opening—for each 25 foot traveled . . . . .	\$12.60
Each limited-use/limited-application (—LULA) elevator . . . . .	\$129.00
Each escalator . . . . .	\$107.20
Each dumbwaiter in other than a private residence . . . . .	\$69.10
Each material lift . . . . .	\$129.00
Each incline elevator in other than a private residence . . . . .	\$138.70
Each belt manlift . . . . .	\$129.00
Each stair lift in other than a private residence . . . . .	\$69.10
Each wheel chair lift in other than a private residence . . . . .	\$69.10
Each personnel hoist . . . . .	\$129.00
Each grain elevator personnel lift . . . . .	\$107.20
Each material hoist . . . . .	\$129.00
Each special purpose elevator . . . . .	\$129.00
Each private residence elevator installed in other than a private residence . . . . .	\$129.00
Each casket lift . . . . .	\$107.20
Each sidewalk freight elevator . . . . .	\$107.20
Each hand-powered manlift or freight elevator . . . . .	\$72.60
Each boat launching elevator . . . . .	\$107.20
Each auto parking elevator . . . . .	\$107.20
Each moving walk . . . . .	\$107.20
Duplication of a damaged, lost or stolen operating permit . . . . .	\$12.60



**WAC 296-96-01070** (~~What are the civil (monetary) penalties for violating the conveyance permit and operation requirements of chapter 70.87 RCW and this chapter?~~) Operating a conveyance without an operating permit. (1) Any licensee, installer, owner or operator of a conveyance who violates a provision of chapter 70.87 RCW or this chapter shall be subject to the following civil penalties:

- (((a) Operation of a conveyance without a permit or written approval from the department:
  - First violation..... \$171.20
  - Second violation..... \$342.60
  - Each additional violation..... \$500.00
- (b) Installation of a conveyance without a permit:
  - First violation..... \$171.20
  - Second violation..... \$342.60
  - Each additional violation..... \$500.00
- (c) Relocation of a conveyance without a permit:
  - First violation..... \$171.20
  - Second violation..... \$342.60
  - Each additional violation..... \$500.00
- (d) Alteration of a conveyance without a permit:
  - First violation..... \$171.20
  - Second violation..... \$342.60
  - Each additional violation..... \$500.00
- (e) (i) Operation of a conveyance for which the department has issued a red tag or has revoked or suspended an operating permit or operation of a decommissioned elevator..... \$500.00
  - (ii) Removal of a red tag from a conveyance..... \$500.00
- (f) Failure to comply with a correction notice:
  - After 90 days..... \$114.10
  - After 180 days..... \$285.40
  - After 270 days..... \$457.00
  - After 360 days..... \$500.00
  - Each 30 days after 360 days.... \$500.00
  - Note: Penalties are cumulative
- (g) Failure to submit official written notification that all corrections have been completed:
  - After 90 days..... \$114.10
  - After 180 days..... \$285.40
  - After 270 days..... \$457.00
  - After 360 days..... \$500.00
  - Each 30 days after 360 days.... \$500.00
  - Note: Penalties are cumulative

- (h) Failure to notify the department of each accident to a person requiring the services of a physician or resulting in a disability exceeding one day may result in a \$500.00 penalty per day. The conveyance must be removed from service until the department authorizes the operation of the conveyance. This may require an inspection and the applicable fees will be applied. Failure to remove the conveyance from service may result in an additional \$500.00 penalty per day. \$500.00 Plus  
WAC 296-96-01057
- (i) Falsifying official written documentation submitted to the department. Each day is a separate violation. \$500.00))

	First violation		Second violation		Each additional violation
(a) Operation of a conveyance without a permit or written approval from the department:	\$171.20		\$342.60		\$500.00
(b) Installation of a conveyance without a permit:	\$171.20		\$342.60		\$500.00
(c) Relocation of a conveyance without a permit:	\$171.20		\$342.60		\$500.00
(d) Alteration of a conveyance without a permit:	\$171.20		\$342.60		\$500.00
(e)(i) Operation of a conveyance for which the department has issued a red tag or has revoked or suspended an operating permit or operation of a decommissioned elevator:	\$500.00				
(ii) Removal of a red tag from a conveyance:	\$500.00				
	<b>After:*</b>				
	90 Days	180 Days	270 Days	360 Days	Each 30 days after 360
(f) Failure to comply with a correction notice:	\$114.10	\$285.40	\$457.00	\$500.00	\$500.00
(g) Failure to submit official written notification that all corrections have been completed:	\$114.10	\$285.40	\$457.00	\$500.00	\$500.00
(h) Failure to notify the department of each accident to a person requiring the services of a physician or resulting in a disability exceeding one day may result in a \$500.00 penalty per day. The conveyance shall be removed from service until the department authorizes the operation of the conveyance. This may require an inspection and the applicable fees will be applied. Failure to remove the conveyance from service may result in an additional \$500.00 penalty per day.					
(i) Falsifying official written documentation submitted to the department. Each day is a separate violation: \$500.00.					

\*Note: Penalties are cumulative.

(2) A violation as described in subsection (1)(a), (b), (c), and (d) of this section will be a "second" or "additional" violation only if it occurs within one year of the first violation.

(3) The department (~~must~~) shall serve notice by certified mail to an installer, licensee, owner, or operator for a violation of chapter 70.87 RCW, or this chapter.

AMENDATORY SECTION (Amending WSR 04-12-047, filed 5/28/04, effective 6/30/04)

~~WAC 296-96-01075 ((How does an owner or licensee receive a variance from the installation and alteration requirements of chapter 70.87 RCW and this chapter?))~~ Requests for variances (exceptions to requirements). Variances from the installation and alteration requirements of this chapter may be requested. The variance request shall be in writing on a form approved by the department accompanied with the required fee. The individual requesting the variance ((~~must~~)) shall provide the department with pictures, documentation, or other information necessary for the department to review the variance. The application shall indicate an alternate solution that provides the same or greater level of safety as required by the prescriptive requirements of the code or this chapter. The department may conduct an on-site variance inspection to verify the information provided or if it determines that an inspection is necessary. If an on-site variance inspection is performed, the fees in WAC 296-96-01035 will also apply.

## **PART C - REGULATIONS FOR NEW AND ALTERED ELEVATORS AND LIFTING DEVICES**

~~NOTE: ((The following rules set the minimum standard for all new installations and, where applicable, alterations.~~

~~NOTE: Part C is not intended to replace the current adopted standards outlined in WAC 296-96-00650. In conflicts between Part C and the adopted standards, Part C shall take precedent.))~~ This part provides requirements for new and altered equipment in lieu of, or in conjunction with, ASME A17.1/CSA B44.

### **Section 1 Inspections, Alterations, and Construction-Use Permits**

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

~~WAC 296-96-02400 ((When must the department be notified for a new or altered inspection?))~~ 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 re-

requesting any inspection of the work, and shall subject the new, moved, or altered portions of the conveyance to the acceptance tests.

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

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02405** ~~((What is the))~~ **Inspection and approval process for alterations((?)).** The following process ~~((must))~~ shall be followed when performing alterations:

(1) Submit an alteration application and obtain an ((alteration)) approved permit from the department prior to performing the alteration. The permit application ~~((must))~~ shall include detailed information on the scope of the alteration.

(2) Post the permit on the job site. Take the conveyance out-of-service and perform the alteration.

(3) If the conveyance requires an inspection prior to being returned to service (as identified on the alteration permit), ~~((you must contact))~~ the department ~~((to schedule an inspection))~~ shall be contacted at least seven days in advance for the purpose of scheduling an inspection and:

(a) A licensed mechanic ~~((must))~~ shall be present ~~((and))~~ during the inspection;

(b) If the conveyance passes the inspection, the conveyance may be placed back into service~~((-~~  
~~(b-))~~);

(c) If the conveyance fails the inspection, the conveyance ~~((must))~~ shall remain out-of-service until the corrections are made, a reinspection is scheduled and the conveyance is approved by the department.

(4) If the conveyance is not required to be inspected prior to being returned to service, ~~((you must))~~ the contractor shall contact the department immediately to schedule an inspection within seven days and obtain written permission prior to returning the conveyance to service. A licensed mechanic ~~((must))~~ shall be present during the scheduled inspection and:

(a) If the conveyance passes the inspection, the conveyance may remain in service.

(b) If the conveyance fails the inspection, the conveyance will be placed out-of-service until the corrections are made, a reinspection is scheduled and the conveyance is approved by the department.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02410** ~~((Are there additional work requirements when performing an alteration?))~~ **Alterations.** ~~((For certain types of alterations additional work may be required as part of the alteration and prior to approval of the conveyance. These alterations include, but are not limited to:~~

~~(1) Replacements of controllers will require the following:~~

~~(a) Firefighter service requirements must be in accordance with the most recent code adopted by the department and include ASME A17.1 8.7.2.27.4(a) when travel is five feet or more above or below the designated landing.~~

~~(b) Seismic requirements for derailment and/or seismic switch as required must be met in accordance with the most recent code adopted by the department. In addition, the conveyance must operate according to ASME A17.1 seismic requirements.~~

~~(c) Lighting in the machine room and pit must comply with the most recent code adopted by the department.~~

~~(d) Electrical outlets in the machine room and pit must be of the ground fault interrupter type.~~

~~(2) Replacement of controllers and a car operating panel and/or hall fixtures:~~

~~(a) The requirements of subsection (1) of this section must be met.~~

~~(b) All panels and fixtures must meet the applicable (e.g., height, sound, Braille, etc.) requirements in accordance with this chapter.~~

~~(3) Replacement of door operators and/or door equipment: Any changes to these items require the installation of door restrictors.~~

~~(4) Hydraulic piping: Replacement or relocation of hydraulic piping including a control valve will require the installation of a rupture (overspeed) valve. Gaskets and seals are excluded from this requirement.~~

**Note:** The department may grant exceptions to the requirements identified in this section.))

(1) Where there is an associated seismic or ADA requirement to the equipment or system being altered, the equipment shall also be brought into compliance with the applicable seismic and/or ADA requirements during the alteration.

(2) Machine room, control room, machinery and control space illumination shall be required to meet the minimum illumination levels as required by the latest adopted code.

(3) Where a new jack assembly or hydraulic pump unit is installed, a seismic (overspeed) valve shall be installed according to ASME A17.1/CSA B44, Section 8.4.11.

(4) When new elevator equipment is installed in a machine or control room, receptacles shall comply with current adopted edition of NFPA 70 (see Art. 620.23).

(5) When new equipment is installed in the elevator pit, illumination levels shall be required to meet the minimum illumination levels required by the current adopted edition of ASME A17.1/CSA B44. Receptacles in the pit area shall be of the GFCI type (see NFPA 70, Art. 620.24).

(6) Where the main line disconnect is being replaced or relocated, and the machine room or hoistway is sprinklered, or in the process of being sprinklered, a shunt-trip device shall be installed.

**WAC 296-96-02415** (~~((What are the conditions for obtaining a temporary construction operating permit?))~~) Construction-use permit.

((Note: See WAC 296-96-01040 for fees.

~~(1) In order to obtain a permit: The elevator must at a minimum adhere to:~~

~~(a) ASME A17-1 Section 5.10 Elevators Used for Construction.~~

~~(b) A single means of disconnecting the elevator must be provided and related equipment must be identified by the use of numbers or letters on the disconnect, the controller, the drive machine, the cross head, and the car operating panel.~~

~~(c) The key operation of Phase I must recall the elevator.~~

~~(d) A means of emergency communication with the elevator must be provided. If there is no permanent method of emergency communication an operator with communication equipment must be provided.~~

~~(e) Tests shall be conducted according to A17.1-8.10.5.10 Elevators Used for Construction.~~

~~(f) Hydraulic elevators with less than four stops may not be issued a temporary construction operating permit unless preapproved by the department.~~

~~(g) Elevator cab interiors must be completed. Temporary cabs may be used and walls must be covered with fire retardant materials.~~

~~(h) The elevator must pass load tests and safety circuit inspections.~~

~~(i) Temporary or permanent lights in the cab, machine room and at the landings must be provided.~~

~~(j) Machine rooms must be fully enclosed and have a lockable door.~~

~~(k) Hoistways must be fully enclosed.~~

~~(l) The elevator is for construction use only. Office furniture and goods used to stock the building are not to be considered construction work.~~

~~(2) The person operating the permitted conveyance under this section must be properly trained in operation and safety and:~~

~~(a) The operator, which may be one of your employees, must be on the elevator whenever it is in use.~~

~~(b) The operator must be designated to be the sole operator of the elevator.~~

~~(c) The operator must be trained in the proper operation of the elevator, the proper procedure to handle an emergency and must know who to contact in the event of an emergency involving the operation of the elevator.~~

~~(d) The operator must carry a means of two-way communication on his/her person at all times. (This may be in the form of a cellphone, walkie-talkie, etc., providing proper reception is obtainable at all times.)~~

(1) Pursuant to RCW 70.87.090, a temporary construction use operating permit may be requested by the elevator contractor.

(2) Elevators granted a temporary construction-use permit shall comply with ASME A17.1/CSA B44, Section 5.10 as a minimum.

(3) Temporary construction operating permits are valid for thirty days (see RCW 70.87.090).

(4) The elevator shall be provided with an operator during all hours of elevator operation. The operator shall be provided with a

means to communicate with personnel who can assist in the event of an elevator-related emergency.

(5) The elevator is restricted for use by construction workers and construction materials only.

(6) Renewal of a temporary operating permit is at the discretion of the department. A reinspection is required before a permit can be renewed.

(7) All elevators with expired temporary construction operating permits that have not passed a final inspection may not be operated. Operating an elevator with an expired permit shall result in a civil penalty (see WAC 296-96-01070 (1)(a)).

## Section 2 Plan Submittals and Layout Drawings

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02421 Layout ((drawings)) plans.** ((Two)) A set((s)) of legible layout/plans ((must)) 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)) machine/control room plan view drawing identifying room dimensions, location of drive machine ((and)), motor controller, mainline disconnect, ((outlet,)) light switch, and door swing;

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

(3) A hoistway elevation ((section)) view identifying elevation of the hoistway and conveyance equipment dimensions and clearances, ((location of rail brackets,)) the location of the pit ladder, pit light, light switch, pit stop switch, and top ((of)) and bottom vertical car clearances((, and on MRLs the height to the equipment from the horizontal plane of the top of the car with the car positioned at the top landing)). 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 ((installation)) assembly((, loads and reactions)) detail, and additional seismic requirements ((when required by building code-.)) see ASME A17.1/CSA B44, Section 8.4 or 8.5 as applicable);

(5) General conveyance data to include((s)):

- (a) Conveyance type (~~((model) and capacity)~~) (e.g., electric, hydraulic, platform lift, etc.);
- (b) (~~((Location number (within building);)~~) Rated capacity;
- (c) (~~((Up/down full load speed);)~~) Building designation (e.g., Elev. #1, Car #2, etc.);
- (d) Rated speed;
- (e) Car enclosure (construction material);
- (~~((e))~~) (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);
- (~~((f) Platform thickness))~~ (h) Car and hall fixture detail;
- (~~((g))~~) (i) Finish floor (tile, carpet) (submit test data to ASTM E 648 if applicable);
- (~~((h))~~) (j) Power unit/drive motor (manufacturer and HP);
- (~~((i) Power requirements;~~
- (~~((j))~~) (k) Equipment heat generation (BTU) (items (~~((k)-(o))~~) (l) through (p) are applicable only to hydraulic elevators);
- (~~((k))~~) (l) Jack (~~((model))~~) assembly manufacturer;
- (~~((l))~~) (m) Plunger O.D. (if telescoping O.D. of each section);
- (~~((m))~~) (n) Plunger wall thickness;
- (~~((n))~~) (o) Cylinder O.D.;
- (~~((o))~~) (p) Cylinder wall thickness (items (~~((p)-)~~) (q) through (u) are applicable to roped-hydraulic and/or electric elevators);
- (~~((p))~~) (q) Size and number of (~~((hoist ropes))~~) suspension means;
- (~~((q))~~) (r) Roping type (1:1, 2:1, underslung);
- (~~((r))~~) (s) Governor location;
- (~~((s))~~) (t) Governor rope size and (~~((number))~~) type;
- (~~((t))~~) (u) Safety (~~((manufacture))~~) manufacturer and type;
- (~~((u))~~) (v) Emergency brake (~~((manufacture))~~) manufacturer and type;
- (~~((v) Care))~~) (w) Car buffer type and stroke;
- (~~((w))~~) (x) CWT buffer type, impact, and stroke; and
- (~~((x))~~) (y) Designed top/bottom runby.

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

(7) 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) 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.

### Section 3 Requirements for Hydraulic Elevators



AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-02425** ~~((Where is a shut-off valve required for hydraulic elevators?))~~ Shut-off valves. Two shut-off valves may be required.

(1) ASME requires that a shut-off valve be installed in the machine room.

(2) When the pit is lower than the machine, a shut-off valve ~~((must))~~ shall be installed in the pit.

(3) A separate shut-off valve is not required in the pit for hydraulic elevators equipped with a safety/rupture valve that rotates no more than 180 degrees to stop the flow of hydraulic fluid and has a safety shut-off handle capable of being grasped.

**EXCEPTION:** Limited use/limited application (LULA), special purpose and residential elevators are exempt from this section.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02452** Access to machines, ((beams)) overhead sheaves, shackles, and hitch supports ((must meet the following requirements)). When the machine space is provided inside the hoistway ~~((--(1))~~ maintainable items on the machine ((and)), overhead sheaves ~~((cannot))~~, shackles and hitch supports shall not be located more than six feet six inches from the horizontal plane of the ~~((cartop))~~ car top.

~~((2) The cartop inspection shall not operate past the normal terminal stopping device.~~

**Note:** Where access is greater than six feet six inches (see WAC 296-96-23115:))

#### Section 4 Main Line Disconnects and Shunt-Trip Breakers

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02460** ~~((What are the requirements for electrical main line disconnects?))~~ Location. (1) The main line ~~((disconnect switch(es) or circuit breaker must))~~ disconnect(s) shall be located per ~~((NEC))~~ NFPA 70, Article 620.51(c) and:

(a) Inside the machine room door on the ~~((lock-jamb))~~ strike side of the machine or control room door;

(b) Not more than twenty-four inches from the ~~((jamb))~~ door to the operating handle; and

(c) Be at a height not less than thirty-six inches (~~and not~~) nor more than sixty-six inches above the finish floor as measured centerline to the disconnect handle.

(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 (~~must~~) shall swing out and the switch(es) (~~must~~) shall be located on the wall adjacent to the hinge side of the active door panel.

(4) (~~The switch(es) must be designed so that they may be locked out and tagged in the open position.~~) 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.

## Section 5 Additional Machine/Control Room Requirements

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

~~WAC 296-96-02465 ((What are the requirements associated with elevator)) Machine rooms((?)), control rooms, and control spaces. (1) ((Panels or doors for the purpose of accessing nonelevator equipment are not permitted in elevator machine rooms. Passage through the machine room may not be used to gain access to other parts of the building that do not contain elevator equipment.~~

~~(2)) The lighting control switch ((must)) shall be located inside the machine room or control room within twenty-four inches of the lock jamb side of the ((machine room)) access door.~~

~~((3) Cooling or venting of the elevator machine room shall be to the present building code adopted by the state.~~

~~Machinery spaces, machine rooms, control spaces, and control rooms that contain solid-state equipment for elevator operation shall be provided with an independent ventilation or air-conditioning system to protect against the overheating of the electrical equipment. Ventilation systems shall use outdoor makeup air. The system shall service the equipment space only, and shall be capable of maintaining the temperature and humidity within the range established by the manufacturer's specifications. Where no manufacturer specifications are available, the equipment space temperature shall be maintained at no less than fifty five degrees Fahrenheit and no more than ninety degrees Fahrenheit.~~

~~The cooling load for the equipment shall include the BTU output of the elevator operation equipment as specified by the manufacturer~~

based on one hour of continuous operation. The outdoor design temperature for ventilation shall be from the 0.5 percent column for summer from the Puget Sound Chapter of ASHRAE publication "Recommended Outdoor Design Temperatures, Washington State." The following formula shall be used to calculate flow rate for ventilation:

$CFM = \text{BTU output of elevator machine room equipment} / [1.08 \times (\text{acceptable machine room temp} - \text{makeup air temp from the ASHRAE publication})]$

**EXCEPTION:** For buildings four stories or less, natural or mechanical means may be used in lieu of an independent ventilation or air-conditioning system to keep the equipment space ambient air temperature and humidity in the range specified by the elevator equipment manufacturer.

(4) A thermostat must be provided in the elevator machine room to control the temperature.

(5) Where no specifications are available, the machine room temperature shall be maintained at no less than fifty five degrees Fahrenheit and no more than one hundred degrees Fahrenheit.

(6) When standby power is connected to the elevators, the machine room ventilation or air conditioning system shall be connected to the standby power.

(7) If the air conditioner is mounted overhead, seven feet of headroom clearance must be provided from the underside of the unit to the machine room floor.

(8) If ventilation is used, it must not exhaust air into other parts of the building.

(9) Machine rooms located in underground parking garages must have a means to exchange the air in the machine room. An "exchange of air" is completed through separate intake and exhaust systems.

**EXCEPTION:** The air in an underground parking garage machine room can be exchanged directly into the parking garage area.

(10) All elevators that are provided with remote elevator machine and/or control rooms must be provided with a permanent means of communication between the elevator car and the remote machine room and/or control room.

(11)) 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 ((must have signs with lettering at least 1.25 inch in height with "elevator equipment room authorized personnel only — no storage.") 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 60 in. above floor level. Lettering shall not be less than 0.375 in. in height and shall contrast with the background. 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).

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

~~WAC 296-96-02470 ((What are the requirements for Fireman's Service Phase I and Phase II recall?)) Fireman's service for groups of four or more. ((Devices for deactivating recall must be in the line of sight of the elevator; be secure from tampering; and must be accessible to fire, inspection, and elevator service personnel only. Owner-designated patient express and emergency hospital service elevators may have a manual control in the car for use by authorized patient care personnel. When activated, it shall preclude Phase I recall.~~

~~The illuminated visual signal in the car that indicates when Phase I Emergency Recall Operation is in effect must stay illuminated until the car is taken off Phase I operation.~~

~~Once the car returns to the designated landing on Phase I recall and the doors have reached their full open position, the buzzer must be silenced within ten seconds.)) Groups of elevators containing four or more cars ((shall)) may be provided with two((7)) three-position key switches per group. For purposes of this section, a group shall be defined as all elevators serving the same portion of a building. Hall call buttons common to a group will remain in service unless both Phase I recall switches of a four car or larger group are placed in the recall mode or a fire alarm recall signal is initiated.~~

~~((EXCEPTION: Limited use/limited application (LULA), special purpose, and residential elevators are exempt from this section:))~~

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

~~WAC 296-96-02471 ((ASME A17.1-2.27.8 FEO-K1 Fire service keys.)) Emergency personnel lock box. ((The key switches required by ASME A17.1-2.27.2 through 2.27.5 for all new and altered elevators in a building shall be operable by the FEO K1 key. The keys shall be Group 3 Security (see ASME A17.1-8.1). A separate key shall be provided for each switch. This key shall be of a tubular, 7 pin, style 137 construction and shall have a bitting code of 6143521 starting at the tab sequences clockwise as viewed from the barrel end of the key. The key shall be coded "FEO K1." The possession of the "FEO K1" key shall be limited to elevator personnel, emergency personnel, elevator equipment manufacturers, and authorized personnel during checking of firefighters emergency operation.~~

~~Note: (ASME A17.1-2.27.8) Local fire or building authorities may specify the requirements for a uniform keyed lock box and its location to contain the necessary keys. Where required, a lock box, including its lock and other components, shall conform to the requirements of UL 1037 (see Part 9). These keys shall be kept on the premises in a location readily accessible to firefighters and emergency personnel, but not where they are available to the public:))~~

A lock box is required to house the keys specified in ASME A17.1/CSA B44, Section 2.27.8.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02481 City of Seattle requirements for sprinklers and shunt trips (~~within the city limits of Seattle~~).** Within the city limits of Seattle application of water will be manually controlled and elevator shut down will be installed per the current code adopted by the city of Seattle elevator section.

**Section 6  
Correction Facility Elevators**

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-02490 (~~Are there exceptions for correction facility elevators?~~) Exceptions.** Facilities that require special consideration to ensure the safety of security personnel and to prevent escapes (~~must~~) shall meet the relevant requirements of ASME (~~A17.1~~) A17.1/CSA B44, except that accessible "in-car" stop switches and signaling devices are not required when the elevator operation is:

- (1) Continually monitored by audio-visual equipment.
- (2) Remotely controlled from a single location.
- (~~3~~) Controls necessary for an elevator's operation may be located inside a car when the operating panel has a locked cover.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02525 (~~What is required for installation and operation of emergency communication systems?~~) Communication devices and systems.** (~~Every elevator must contain an emergency two-way communication system. The installation and operation of this emergency communication system must comply with the ASME A17.1 code in effect when the department issued the elevator's installation permit. In addition to the appropriate ASME A17.1 code, the following requirements apply:~~

- (1) ~~The communication device located in the elevator car must comply with the following:~~
  - (a) ~~The maximum height of any operable part of the communication system is forty eight inches above the floor.~~
  - (b) ~~Raised symbols and letters must identify the communication system. These symbols and letters must be located adjacent to the communication device. The characters used must be:~~
    - (i) ~~At least 5/8 inches but no more than two inches high;~~

- ~~(ii) Raised 1/32 inch;~~
- ~~(iii) Upper case;~~
- ~~(iv) Sans serif or simple serif type; and~~
- ~~(v) Accompanied by Grade 2 Braille.~~

~~(c) If the system is located in a closed compartment, opening the door to the compartment must:~~

~~(i) Require the use of only one hand without tight grasping, pinching, or twisting of the wrist; and~~

~~(ii) Require a maximum force of five pounds.~~

~~(d) The emergency communication system must not be based solely upon voice communication since voice only systems are inaccessible to people with speech or hearing impairments. An indicator light must be visible when the telephone is activated. This nonverbal means must enable the message recipient to determine the elevator's location address and, when more than one elevator is installed, the elevator's number.~~

~~(e) The emergency communication system must use a line that is capable of communicating with and signaling to a person or service that can respond appropriately to the emergency at all times.~~

~~(2) A communication device (intercom), if required by ASME A17.1, must be installed in the lobby adjacent to the Phase I key switch. This device must be a two way communication device used to communicate with individuals in the elevator.~~

~~(a) The height of any communication device(s) located in the lobby must be located between forty eight and sixty inches above the floor.~~

~~(b) Additional communication device(s) may also be located in other parts of the building in addition to the one located in the lobby.~~

~~(c) ASME A17.1 2.27.1.1.6(a) The two way voice communication (intercom) within the building is not required to meet the telephone operability verification requirements if the connections are hard-wired.~~

**EXCEPTION:** Elevators that have less than sixty feet of travel do not require an intercom.

~~(3) Subsections (1) and (2) of this section do not apply to special purpose elevators. However, residential and special purpose elevators must have a means of communication located inside the elevator cab. This communication device must be permanently installed and available at all times. Cell phones and radios do not meet this requirement.~~

**EXCEPTION:** Residential inclined elevators are exempt from this section.))

Communication devices and systems shall comply with ASME A17.1/CSA B44 and ICC A117.1 as applicable.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02530 ((What requirements apply to the size and location of car handrails?)) Handrails.** ((A handrail must provide coverage lengthwise at least ninety percent from wall to wall.

(1) A handrail must be installed on all car walls not used for normal exits. The handrails must be:

~~(a) Attached to the wall at a height of between thirty two and thirty five inches from the floor to the top of the handrail;~~

~~(b) Attached to the wall with a 1-1/2 inch space between the wall and the rail;~~

~~(c) Constructed with the hand grip portion not less than 1-1/4 inches but not more than two inches wide;~~

~~(d) Constructed with a cross section shape that is substantially oval or round;~~

~~(e) Constructed with smooth surfaces and no sharp corners. Approaching handrail ends on a blank wall in the interior corners of a car do not have to return to the wall. However, if the handrail is located on the closing door wall of a single slide or two speed entrance elevator and it projects an abrupt end towards people entering the car, the handrail end must return to the wall.~~

~~(2) Residential elevators must have at least one handrail. The handrail must be installed on a car wall not used for normal exits.~~

**EXCEPTION:** Special purpose elevators are exempt from this section.))

Handrails are not required. Where handrails are provided in elevator cars, their configuration shall comply with ADAAG or ICC A117.1.

**Note:** Residential conveyances are excluded from this requirement.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02552 Location of equipment in hoistway.** (1) Where an elevator cannot be prevented from movement electrically and mechanically prior to entering the hoistway or pit area, the following restrictions shall apply:

(a) Motor controllers, motion controller, drive, hydraulic control valves, hydraulic reservoir (tank), and hydraulic pump motor shall not be located in the hoistway or pit.

~~((2) Elevator controls and machinery other than driving machines, hydraulic cylinder, piston, governor, and their components shall be located in a room dedicated exclusively to elevator equipment.~~

~~(3) Drive sheaves, deflector sheaves, machine parts and supports are permitted to project into the hoistway.~~

~~(4)) (b) Driving machines shall not be located in the pit.~~

(2) The ability to activate the means to secure the elevator electrically and mechanically shall be such that the activation can be performed without full bodily entry into the hoistway or pit.

(3) Elevator controls and machinery other than driving machines, hydraulic cylinder, piston, governor, and their components shall be located in a room dedicated exclusively to elevator equipment.

(4) Drive sheaves, deflector sheaves, machine parts and supports are permitted to project into the hoistway.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02558 ((Pit equipment.)) Working platforms.** ((~~(1) ASME A17.1 2.4.2 When oil buffers are used, the bottom runby shall be not less than one hundred fifty millimeters (six inches). Sections (a) and (b) from the ASME A17.1 2.4.2.1 code are not adopted.~~

~~(2) ASME A17.1 2.2.8))~~ When working platform inspection operation is provided, according to ASME ((~~A17.1 2.7.5.3.6~~)) A17.1/CSA B44, 2.7.5.3.6 in hoistways containing a single elevator:

((~~(a)~~)) (1) A pit access door is required; or  
((~~(b)~~)) (2) Additional elevator personnel shall be present outside the hoistway when the pit inspection operation is in effect.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02580 ((Are keys required to be on-site?)) Keys required on-site.** The keys ((~~to the machine room and the keys that are necessary to operate the elevator must~~)) for Group 2 Authorized Personnel (see ASME A17.1/CSA B44 8.1.3) shall be located in a locked key retainer box in the elevator lobby at the designated level above the hall buttons, or located by machine room doors at no more than six feet above the floor, provided access to the key box doesn't require passage through locked doors. If in order to meet this requirement the box would be located in an unsecured location (such as the outside portion of a condo), other arrangements shall be accommodated with the written permission of the department.

The key retainer box ((~~must~~)) shall be:

- Readily accessible to authorized personnel;
- Clearly labeled "ELEVATOR";
- Securely mounted;
- Equipped with a 1-inch mortise cylinder cam lock with keyway set to a #39504 Fort type key ((~~and securely mounted~~));

Further:

- Keys for access to elevator machine rooms and for operating elevator equipment ((~~must~~)) shall be tagged and kept in the key box.
- The box ((~~must~~)) shall contain all keys associated with the Group 2 Security and applicable to the elevator(s) (see ASME A17.1/CSA B44, Req. 8.1.3).
- Mechanical hoistway access devices ((~~must~~)) shall be located in the key box or machine room.

**Note:** The cities of Seattle and Spokane may designate their own options for keys and lockbox arrangement via their rule processes. ((ASME A17.1 2.27.8 Local fire or building code authorities may specify the requirements for a uniform keyed lock box and its location to contain the necessary keys (this will be in addition to the requirements above). Where required, a lock box, including its lock and other components, shall conform to the requirements of UL 1037 (see Part 9). These keys shall be kept on the premises in a location readily accessible to firefighters and emergency personnel, but not where they are available to the public.))

**EXCEPTION:** Residential elevators are exempt from this section.



((LULA))

AMENDATORY SECTION (Amending WSR 08-23-085, filed 11/18/08, effective 12/19/08)

**WAC 296-96-02590** ~~((When does the department require a local building official to sign off for the installation of LULAs, stair lifts, inclined wheelchair lifts and vertical wheelchair lifts?))~~  
**Building official signatures.** In existing buildings where LULAs, stair lifts, inclined wheelchair lifts and vertical wheelchair lifts are to be installed, the local building official ~~((must))~~ shall signify that he/she is allowing this type of conveyance on a form provided by the department.

**EXEMPTION:** Residential conveyances are exempt from this section.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02605 Private residence inclined stairway chairlifts.**  
(1) Battery operated private residence inclined stairway chairlifts are not required to be permanently wired ((into a structure)) or installed on an individual branch circuit as required by NEC 620.51 (A) Exception 2. These conveyances ((may be equipped with)) shall be permitted to use a cord and plug((. The plug must be directly inserted into a wall receptacle that is protected by a fuse or a circuit breaker at its source and is capable of supporting the additional load on the circuit. The source must be identified either at the receptacle or at the feeder panel. The cord must be secured in a manner that will not create any tripping hazards)) that will act as the equipment disconnecting means. 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 620.51 (A) Exception 2.

(2) ~~((ASME A18.1 7.10.1 Operation of the lift from the top and bottom landings and from the platform shall be controlled by control switches at all stations and by means of the continuous pressure type. Operation of the lift from the intermediate landings shall be controlled by "up" and "down" control switches and by means of the continuous pressure type. Controls shall be one thousand two hundred millimeters (forty eight inches) maximum and nine hundred fourteen millimeters (thirty six inches) minimum above the platform floor or facility floor or ground level. Operating devices shall be designed so that both the "up" and "down" circuits cannot be operated at the same time.~~

~~((3))~~) A free passage width of not less than seventeen inches shall be provided. If the chair can be folded when not in use the distance can be measured from the folded chair. When in use there must be

a minimum of two inches between any body part and the nearest obstruction.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-02640 Incline commercial stairway chair lifts.** ((1) ~~ASME A18.1 2.10.1 and ASME A18.1 3.10.1 Operation of the lift from the top and bottom landing(s) and from the platform shall be controlled by control switches at all stations and by means of the continuous pressure type. Operation of the lift from the intermediate landing(s) shall be controlled by "up" and "down" control switches and by means of the continuous pressure type. Controls shall be one thousand two hundred millimeters (forty eight inches) maximum and nine hundred fourteen millimeters (thirty six inches) minimum above the platform floor, facility floor, or ground level. Operating devices shall be designed so that both the "up" and "down" circuits cannot be operated at the same time.~~

(2) ~~ASME A18.1 4.1.1 Incline commercial stairway chair lifts in new and existing buildings must have a clear passage width of not less than twenty inches. If the seat can be folded when not in use, the distance shall be measured from the folded position to the nearest obstruction.)~~ Governor overspeed testing shall be verified by manufacturer documentation and manually tripped at rated speed with no load.

**PART C1 - MINIMUM STANDARDS FOR NEW AND ALTERED STANDARD APPLICATION  
MATERIAL LIFTS**

NEW SECTION

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

AMENDATORY SECTION (Amending WSR 04-12-047, filed 5/28/04, effective 6/30/04)

**WAC 296-96-05010** ((~~What are the department's rules on material lifts?~~)) Definition and use. (1) These rules define a "standard application 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 ~~((five feet))~~ 5 ft. and no more than 60 ft.;
- (d) Has a maximum speed of ~~((fifty feet per minute))~~ 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 material lifts ~~((must))~~ shall not carry people so their operation or failure will not endanger people working near them. WAC 296-96-05010 through 296-96-05290 establishes requirements for the construction, installation, and operation of material lifts. ~~((These rules allow certain conveyances designed solely to transport material and equipment to be constructed to less stringent and costly standards than ASME A17.1.))~~

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.)

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-05020** ~~((What requirements apply to the construction and fire safety of))~~ **Hoistway enclosure((s?))**. Generally, local codes and ordinances govern hoistway enclosure construction. When not in conflict with a local code requirement, the enclosure ~~((must))~~ shall:

- (1) Be built to a height of 7 feet above each floor, landing and adjacent stairway tread;
- (2) Extend (adjacent to the counterweights) the full height of the floor and 8 inches beyond the counterweight raceway;
- (3) Be constructed of either solid material or material with openings that will reject a 2-inch diameter ball; ~~((and))~~
- (4) Be supported and braced so that it does not deflect more than 1 inch when subjected to a force of 100 ~~((pounds))~~ 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.

AMENDATORY SECTION (Amending WSR 04-12-047, filed 5/28/04, effective 6/30/04)

**WAC 296-96-05030** ~~((What are the construction requirements for))~~ **Hoistway ((enclosure)) gates and doors((?))**. Enclosure gates (doors) ~~((must))~~ shall be constructed according to the following standards:

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

(2) It ~~((must))~~ 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 2-inch diameter ball.

(4) Be constructed with a distance of not more than 2 1/2 inches 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.

(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 2 inches vertically from the landing threshold and no less than 66 inches above it.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-05040** ~~((What requirements apply to a hoistway that does not extend to the lowest levels of a building or structure?))~~ Space below hoistway. If the space directly below the hoistway is accessible, the following requirements apply:

(1) All lift counterweights ~~((must))~~ shall have safeties.

(2) All cars and counterweights ~~((must))~~ shall have either spring or oil buffers.

(3) Spring buffers ~~((must))~~ shall not fully compress when struck by a car carrying its rated load or by the counterweights when they are moving at the following speeds:

(a) For safeties operated by a governor, the tripping speed of the governor is the maximum striking speed.

(b) For safeties not operated by a governor, 125 percent of the rated speed is the maximum striking speed.

(4) Car and counterweight-buffer supports ~~((must))~~ shall be able to withstand any impact upon the buffer (without permanent deformation) while occurring at the following speeds:

(a) For safeties operated by a governor, the tripping speed of the governor at the rated capacity is the maximum impact speed.

(b) For safeties not operated by a governor, 125 percent of the rated speed is the maximum impact speed.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-05050** ~~((What requirements apply to lift hoist driving machines?))~~ Drive machines. (1) Lift hoist driving machines ~~((must))~~ shall be one of the following types:

- (a) Winding drum.
- (b) Traction.
- (c) Direct plunger.
- (d) Hydraulic.
- (e) Roped or chained hydraulic.
- (f) Rack and pinion.
- (g) Roller chain drive.
- (h) Scissors.
- (i) Screw.

(2) Overhead mounted driving machines (~~must~~) shall either be secured to the top of overhead beams or supported by the floor above. Hooks, cables, chains or similar devices cannot suspend driving machines.

(3) For traction machines, the diameter of drive sheaves cannot be less than 30 times the diameter of the hoisting cables. The diameters of all other sheaves cannot be less than 21 times this diameter.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-05070 (~~What car enclosure requirements apply to lifts?~~) Car enclosures.**

(1) Lift cars (~~must~~) shall have their sides enclosed with solid panels or openwork that will reject a two-inch diameter ball. On the car sides where there is no gate (door), the enclosure (~~must~~) shall extend to a height of at least forty-eight inches 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 (~~must~~) shall extend vertically to the car top or underside of the car crosshead and horizontally to at least six inches on each side of the runway.

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

(3) The gate, if required or supplied, (~~must~~) shall be the same height as the sidewalls of the car enclosure and (~~must~~) 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.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-05080 (~~How much~~) Running clearance (~~is permitted between a car sill and a hoistway?~~).**

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

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-05090** ~~((What requirements apply to))~~ **Car and counterweight guides(?)**. Car and counterweight guide rails ~~((must))~~ shall be fastened so they will not deflect more than 1/8 ~~((inch))~~ in. They ~~((must))~~ 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.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-05100** ~~((How much weight can be placed on a car frame and platform during))~~ **Loading and unloading(?)**. Car frames and platforms ~~((must))~~ shall be designed and constructed per ~~((manufacturers'))~~ manufacturer's specifications to withstand the impact of the maximum weight encountered during loading and unloading.

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-05120** ~~((What requirements apply to car))~~ **Operating devices, terminal stopping devices and electrical protective devices(?)**. If electrically operated, such devices ~~((must))~~ shall be enclosed. On lifts driven by winding drum machines, there ~~((must))~~ shall be a slack rope device employing an enclosed electric switch (manually reset type) which ~~((halts))~~ removes power to the drum and brake when the hoisting rope becomes slack.

On other lifts suspended by flexible means such as chain, there ~~((must))~~ shall be a slack rope/chains device employing an enclosed electric switch (manually reset type) which ~~((halts))~~ removes power to the machine and brake when the suspension means becomes slack.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-05140** ~~((What requirements apply to))~~ **Car safeties(?)**. Car safeties ~~((must))~~ shall be used on all material lifts that are suspended by wire ropes or chains. They ~~((must))~~ shall be able to stop and sustain a car carrying ~~((one hundred twenty five))~~ 125 percent of its rated load. This shall be demonstrated during the acceptance inspection and test procedure with an overspeed or gravity drop test, minimum two safeties at a time. On lifts driven by rack and pinion machines:

(1) Car safeties ~~((must))~~ shall be able to stop and sustain a car carrying ~~((one hundred twenty five))~~ 125 percent of its rated load.

(2) Car safeties will consist of a freely rotating safety pinion, an overspeed governor and a safety device which may be mounted on the car.

(3) The rotating pinion driving an overspeed governor will travel on a stationary rack which is vertically mounted in the hoistway.

(4) The governor will actuate the safety device when the downward speed of the car reaches the tripping speed and will bring the car to a gradual stop.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-05150** (~~((What requirements apply to lift))~~) **Brakes((?))**. On electric lifts, brakes ((~~must~~)) shall engage by springs and ((~~must~~)) shall release electronically. All brakes ((~~must~~)) shall have the ability to stop a car and hold it at rest while the car is carrying 125 percent of its rated load. At least one brake ((~~must~~)) shall be mounted on the load side of the driving machine's worm shaft. On indirectly driven lifts, brakes ((~~must~~)) shall engage when the driving mechanism fails.

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-05160** (~~((What types of ropes, chains, and rope connections must be used on a lift?))~~) **Suspension means.** (1) The following general requirements apply:

(a) Iron (low carbon steel) or steel wire ropes with fiber cores ((~~must~~)) shall be used to suspend cars and counterweights.

(b) The minimum safety factor for suspension ropes ((~~must~~)) shall be 6 times the manufacturers rated breaking strength per rope.

(c) The car, the counterweight end of the car and the counterweight wire ropes (or the stationary hitch ends where multiple roping is used) ((~~must~~)) shall be fastened so that the looped ends of the turned back portion in the rope sockets are clearly visible. Fastenings ((~~must~~)) shall either be:

(i) Individual tapered, babbitted rope sockets; or

(ii) Other types of department approved rope fastenings.

(d) Rope sockets ((~~must~~)) shall develop at least 80 percent of the breaking strength of the strongest rope used in the sockets.

(e) U-bolt rope clips (clamps) cannot be used for load fastenings.

(f) A metal or plastic data tag ((~~must~~)) shall be securely attached to one of the wire rope fastenings each time the ropes are replaced or reshackled. The data tag ((~~must~~)) shall include:

(i) The diameter of the ropes in inches; and

(ii) The manufacturer's rated breaking strength.

(iii) The month and year the ropes or chain were installed.

(iv) The name of the person or organization who installed the ropes.

(v) All replacements of wire rope or chain ((~~must~~)) shall be in accordance with the lift manufacturer's specifications.

(2) The following requirements apply to specific types of material lifts:

(a) Traction type lifts ((~~must~~)) shall use at least three hoisting ropes.

(b) Lifts suspended by hoisting chains ((~~must~~)) shall comply with the chain manufacturer's specifications for maintenance, inspection, and application.

(c) Lifts using roller chain type lifting chains ((~~must~~)) shall use chains with a ((~~six-to-one~~)) 6:1 safety factor based on ASME/ANSI B-29.1M minimum (not average) chain strength.

(d) Drum type lifts, ((~~must~~)) shall use either at least two hoisting ropes or a secondary as well as a primary load path to the hoist ((~~must~~)) shall be employed. Also, the cable secured to the drum ((~~must~~)) shall be at least one and one-half turns around the drum when the carrier is at its extreme limit of travel.

AMENDATORY SECTION (Amending WSR 04-12-047, filed 5/28/04, effective 6/30/04)

**WAC 296-96-05170 ((~~What requirements apply to lift~~)) Control stations((~~?~~)).** Lift control stations ((~~must~~)) shall be located at each landing out of reach but within sight of the car. They ((~~must~~)) shall have controls that are permanently and clearly labeled by function. The controls ((~~must~~)) shall have a stop switch that will halt electrical power to the driving machine and brake. This stop switch ((~~must~~)) shall:

- (1) Be manually operated;
- (2) Have red operating handles or buttons;
- (3) Be conspicuously and permanently marked "STOP"; and
- (4) Clearly indicate the stop and run position.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-05190 ((~~How must lift pits be constructed?~~)) Pits.** Lift pits ((~~must~~)) shall:

- (1) Have noncombustible floors;
- (2) Be designed to prevent the entry of groundwater into the pit;
- (3) Have floors that are substantially level;
- (4) Have drains that are not directly connected to sewers;
- (5) Provide safe and convenient access to the pit;
- (6) Provide an approved ladder for pits deeper than 3 feet; and
- (7) Have ((~~non-perforated~~)) nonperforated metal guards installed on the open sides of the counterweights where spring, solid or oil type buffers are attached. These guards ((~~must~~)) shall:

(a) Extend from a point not more than 12 inches above the pit floor to a point at least 7 feet but not more than 8 feet 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.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-05200** (~~((Which lift landings must be illuminated?))~~) Illumination of landings. All lift landings (~~((must))~~) shall be illuminated.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-05210** (~~((What signs must be posted on landings and lifts?))~~) Signage. Each lift (~~((must))~~) shall have the following two signs:

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

(2) 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 (~~((must))~~) shall be made of metal with 2-inch high black letters on a red background.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-05220** (~~((What electrical wiring standards apply to lifts?))~~) Electrical requirements. All electrical wiring, installations, and equipment in a hoistway, machine room or machinery space (~~((must))~~) shall conform to the National Electrical Code in effect at the time of installation or major alteration.

AMENDATORY SECTION (Amending WSR 04-12-047, filed 5/28/04, effective 6/30/04)

**WAC 296-96-05230** (~~((What safety regulations apply to))~~) Exposed equipment((?)). All exposed gears, sprockets, sheaves, drums, ropes and chains (~~((must))~~) shall be guarded to protect against accidental contact as required by general safety and health standards adopted according to chapter 49.17 RCW.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-05240** ~~((What are the))~~ **Minimum maintenance requirements** ~~((for lifts?))~~. All owners, or designated owner representatives, of material lifts described in this chapter are responsible for the maintenance of their lifts and parts. Minimum maintenance requirements are:

(1) All lifts described in this chapter and their parts ~~((must))~~ shall be maintained in a safe condition. Maintenance, examinations, and safety tests are to be performed and documented to the applicable sections of WAC ~~((296-96-23601 through 296-96-23610; and))~~ 296-96-23605.

(2) All devices and safeguards that are required by this chapter ~~((must))~~ shall be maintained in good working order.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-05260** ~~((When are))~~ **Inspections required** ~~((?))~~. Inspections are required for each lift installation, alteration or relocation and ~~((must))~~ shall be conducted at the completion of the job before the lift is placed into service. The inspection ~~((must))~~ shall include a safety test at ~~((125))~~ 100 percent of rated load.

AMENDATORY SECTION (Amending WSR 04-12-047, filed 5/28/04, effective 6/30/04)

**WAC 296-96-05290** ~~((Under what conditions is a five-year test administered?))~~ **Periodic tests**. A five-year test of the material lift car and counterweight safety devices ~~((must))~~ shall be conducted, and the test ~~((must))~~ shall be administered under the following conditions:

(1) Qualified people will conduct the test. A qualified person is either:

(a) An elevator mechanic licensed in the appropriate category for the conveyance being tested;

(b) The representative of a firm that manufactured the particular material lift, and who holds a current temporary mechanic's license in this state;

(c) The representative of a firm that manufactured the particular material lift who is working under the direct supervision of an elevator mechanic licensed in the appropriate category for the conveyance being tested.

(2) The car safety devices ~~((must))~~ shall be tested while the car is carrying a 100 percent rated load and the counterweight is at no load.

(3) A report of the test results ~~((must))~~ shall be ~~((submitted to the department for approval))~~ retained on-site for review by elevator personnel.

**PART C2 - (~~CONSTRUCTION, OPERATION, MAINTENANCE AND INSPECTION OF INCLINED PRIVATE RESIDENCE ELEVATOR FOR TRANSPORTING PERSON(S)~~) PRIVATE RESIDENCE INCLINED ELEVATORS**

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-07150 (~~What are the construction requirements for~~) Guide rails, track supports and fastenings(?)**. (1) (~~Guides, guide rails, guide rail brackets, splice plates, and fastenings must 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 (~~must~~) shall, at the point of support, deflect 1/8 inch or less while resisting horizontal forces encountered during loading. When horizontal force is measured at a mid-point between brackets, guide rails (~~must~~) shall deflect 1/4 inch 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.

(~~(3) The top and bottom of each guide or guide rail run must not allow a car and counterweight guiding members to travel beyond the guide rail ends.~~)

**PART C3 - CONSTRUCTION, OPERATION, MAINTENANCE AND INSPECTION OF PRIVATE RESIDENCE INCLINED CONVEYANCES FOR TRANSPORTING ONLY PROPERTY**

NOTE: New installations shall comply with ASME A17.1/CSA B44, 5.4.

**PART C4 - (~~TEMPORARY~~) PERSONNEL HOISTS**

NOTE: All newly installed personnel hoists shall comply with ASSE/ANSI A10.4.

PART C5 - ADDITIONAL TYPES OF CONVEYANCES

**Material Hoists**

NOTE: New installations to comply with ANSI A10.5.

~~((PART C5 - ADDITIONAL TYPES OF CONVEYANCES))~~

**Belt Manlifts**

NOTE: New installations of belt manlifts shall comply with current adopted version of ASME A90.1.

AMENDATORY SECTION (Amending WSR 04-12-047, filed 5/28/04, effective 6/30/04)

**WAC 296-96-11080** ~~((Under what conditions is a five-year test administered?))~~ **Five-year test.** A five-year test of the belt manlift ~~((must))~~ shall be conducted, and the test ~~((must))~~ shall be administered under the following conditions:

(1) Qualified people will conduct the test. A qualified person is either:

(a) An elevator mechanic licensed in the appropriate category of the conveyance being tested;

(b) The representative of a firm that manufactured the particular belt manlift who holds a current temporary mechanic's license in this state; or

(c) The representative of a firm that manufactured the particular belt manlift who is working under the direct supervision of an elevator mechanic licensed in the appropriate category of the conveyance being tested.

(2)(a) The up capacity of the belt manlift ~~((must))~~ shall be tested with ~~((two hundred pounds))~~ 200 lbs. on each horizontal step. During the up-run portion of the test the belt manlift ~~((must))~~ shall not show appreciable slip of the belt when standing or running at rated speed.

(b) The down capacity of the belt manlift ~~((must))~~ shall be tested with ~~((two hundred pounds))~~ 200 lbs. on each horizontal step. During the down-run portion of the test the belt manlift ~~((must))~~ shall not show appreciable slip of the belt when standing or running at the rated speed.

The brake shall stop and hold the belt with test load within a maximum of ~~((twenty-four inches))~~ 24 in. of travel.

(3) After the five-year test has been performed a tag indicating the date of the test and name of the company performing the test ~~((must))~~ shall be attached in a visible area of the drive motor machine.

**~~((Electric Manlifts))~~ Special Purpose Personnel Elevators**

NOTE: New installations shall comply with ASME A17.1/CSA B44, Section 5.7.

**~~((Hand-Powered Manlifts))~~ Hand Elevators**

NOTE: New installations shall comply with ASME A17.1/CSA B44, Section 4.3.

**Casket Lifts**

NOTE: These conveyances are intended to be used only in mortuaries where moving caskets is necessary. The installation of new lifts for this purpose shall comply with ASME A17.1/CSA B44, Part 7.

## Boat Launching Elevators

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-18010** (~~((What are the definitions for boat launching elevators?))~~) Definition. "Boat launching elevator" is a device that:

- (1) Is equipped with a car or platform;
- (2) Moves in guides in a substantially vertical direction;
- (3) Serves to connect one or more floors or landings of a boat launching structure with a beach or water surface; and
- (4) Is used for carrying or handling boats in which people ride.

"Boat launching structure" is any structure that houses and supports any boat launch elevator.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-18011** (~~((What are the))~~) Minimum maintenance requirements (~~((for boat launch elevators?))~~). Owners of boat launch elevators are responsible for ensuring that:

- (1) Elevators and their parts are maintained in a safe condition; and
- (2) All devices and safeguards required by these regulations are maintained in good working order.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-18020** (~~((Must boat launching elevator cars and platforms be enclosed?))~~) Car and platform enclosures. All boat launching elevator cars or platforms (~~((must))~~) shall be enclosed to a height of at least 6 feet from the floor on all sides where there are no hoist-way doors or gates. Enclosures may be built as solid panels or open work which will reject a (~~((two inch))~~) 2 in. diameter ball.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-18030** ~~((What))~~ **Electrical wiring requirements** ~~((apply to boat launching elevators?))~~. (1) All electric wiring used in boat launching elevators, except the traveling cable, ~~((must))~~ shall be enclosed in rigid metal conduit.

(2) The traveling cable, which is required between the car mounted terminal stopping switch and the hoistway, ~~((must))~~ shall be made of flexible, nonmetallic, moisture-retardant, flame-retardant material.

(3) All electrical outlets, switches, junction boxes and fittings used in boat launching elevators ~~((must))~~ shall be ~~((weather proof))~~ weatherproof.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-18040** ~~((What type of brakes must be used on boat launching elevators?))~~ **Brakes**. All electric boat launching elevators ~~((must))~~ shall be equipped with effective brakes that are applied by springs and released electrically. Brake capacity ~~((must))~~ shall be sufficient to hold the elevator and its rated load at rest.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-18050** ~~((What types of))~~ **Stop switches and protective devices** ~~((are required on boat launching elevators?))~~. (1) All electric boat launching elevators ~~((must))~~ shall be equipped with:

(a) A bottom terminal stop switch operated by the traveling cable and a float or some other department approved mechanism;

(b) A top terminal stop switch that is located in the hoistway and is operated either by a cam attached to the car or some other department approved mechanism; and

(c) Key-operated, continuous pressure type operating switches that are located outside the hoistway but within sight of the elevator car or platform.

(2) All boat launching elevators operated by a winding drum, ~~((must))~~ shall be equipped with a final stop switch that is located on and operated directly by the driving machine. Chains, ropes or belts ~~((must))~~ shall not drive final stop switches.

(3) All boat launching elevators driven by a polyphase alternating current motor ~~((must))~~ shall be equipped with the following approved relays:

(a) A reverse phase relay that prevents the driving machine motor from starting when either the phase rotation is in the wrong direction or there is a phase failure; and

(b) A main line relay or contact that automatically stops power to the driving machine motor and brake, activating the brake when any safety device is activated.

(4) Hand rope controls (~~must~~) shall not be used on any boat launch elevator.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-18060** (~~(When must hoisting cables be reshackled or refastened?)~~) Reshacking and refastening of hoisting cables. The load end of a hoisting cable on all boat launching elevators (~~must~~) shall be reshackled or refastened every 12 months.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-18070** (~~(What requirements apply to)~~) Hoistway gates and doors(?). (1) All boat launching elevators (~~must~~) shall have gate-protected hoistway entrances at every landing except those landings located on the beach or at the water surface.

(2) All gates (~~must~~) shall comply with the following minimum requirements:

(a) There (~~must~~) shall be a full-bodied, balanced type safety gate that protects the full width of the hoistway and (~~must~~) shall hang, at all points along the gate, within (~~two inches~~) 2 in. of the landing threshold;

(b) The minimum gate height on top landings is 42 inches and 66 inches on all intermediate landings;

(c) Gates (~~must~~) shall be constructed of either metal or wood;

(d) Gates (~~must~~) shall be capable of withstanding a lateral pressure, applied at any point, of 250 (~~pounds~~) lbs. without breaking, becoming permanently deformed or being displaced from their guides or tracks;

(e) The openings in grille, lattice or other openwork designed gate bodies, (~~must~~) shall reject a (~~two-inch~~) 2 in. diameter ball; and

(f) Gates (~~must~~) shall be equipped with a department approved combination electric contact and mechanical lock.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-18080** (~~(Must boat launching elevator hoistways be enclosed?)~~) Hoistway enclosures. The sides of elevator hoistways adjacent to a dock area platform, walkway or ramp (~~must~~) shall be enclosed. The enclosures (~~must~~) shall comply with the hoistway safety gate dimension and pressure requirements in WAC 296-96-18070.



**Mechanized Parking Garages ((Equipment))**

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

~~WAC 296-96-20005 ((What national safety codes has the department adopted for mechanized parking garage equipment?))~~ Applicable codes and standards. The department has adopted USASI Standard ANSI/ASME A113.1-1964 "Safety Code for Mechanized Parking Garage Equipment."

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

~~WAC 296-96-20010 ((What are the))~~ Minimum maintenance requirements ((for mechanized parking garage equipment?)). Owners of mechanized parking garage equipment are responsible for ensuring that:  
(1) Elevators and parts are maintained in a safe condition; and  
(2) All devices and safeguards required by these regulations are maintained in good working order.

**PART D - REGULATIONS FOR EXISTING ELEVATORS, DUMBWAITERS, AND ESCALATORS**

~~((Regulations for Existing Electric Elevators, Direct Plunger and Roped Hydraulic Elevators, Escalators used to transport passengers, Electric and Hand-powered Dumbwaiters, Hand-powered Elevators, Inclined Stairway Chairlifts, Inclined and Vertical Wheelchair Lifts, and Sidewalk Elevators~~

~~NOTE: The following rules set the minimum standard for existing elevators, dumbwaiters, and escalators, and, where applicable, alterations.))~~

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.

**Section 1  
Compliance Time Frames**

NEW SECTION

**WAC 296-96-23000 Compliance time frames.** Time frames for compliance with Part D or ASME A17.3 (or combination thereof) as applicable.

(1) These time frames do not apply to maintenance and periodic testing as required by ASME A17.1/CSA B44, Section 8.6.

(2) Where a single unit or group of units is required to comply with multiple requirements on one or more conveyances, the owner shall be granted sufficient time in order to comply without penalty.

(3) The owner shall submit a written plan and projected time frame for which to comply.

(4) Where conveyances are targeted for alterations, the owner may delay implementation of the requirements of Part D or ASME A17.3 (or combination thereof) until such time when the alteration is permitted by the department.

(a) For each item cited, the owner shall have a maximum of 24 months/2 years in which to come into compliance.

(b) Where Firefighters' Emergency Operation is required by ASME A17.3, Req. 3.11.3, the owner shall have a maximum of 60 months/5 years in which to come into compliance. (Note: ASME A17.3, Req. 3.11.3 only pertains to elevators where firefighters' emergency operation does not comply with the 1987 or later editions of ASME A17.1 or ASME A17.1/CSA B44).

**Section 2  
Additional Requirements**

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-23100 ((Are keys required to be on-site?)) Elevator operating keys. ((Yes-**

~~(1) The keys to the machine room and the keys that are necessary to operate the elevator must be located in a locked key retainer box in the elevator lobby; or located by machine room doors at no more than six feet above the floor, provided access to the key box doesn't require passage through locked doors. The key retainer box must be:~~

- ~~(a) Readily accessible to authorized personnel;~~
- ~~(b) Clearly labeled "Elevator"; and~~
- ~~(c) Equipped with a 1 inch cylinder cam lock key #39504.~~

~~Further:~~

~~Keys for access to elevator machine rooms and for operating elevator equipment must be tagged and kept in the key box.~~

~~The key box must contain all keys necessary for inspections of the elevator.~~

~~Mechanical hoistway access devices must be kept in the key box or machine room.~~

~~(2) The department may approve existing retainer boxes provided they are:~~

~~(a) Readily accessible to authorized personnel;~~

~~(b) Clearly labeled "Elevator"; and~~

~~(c) The lock must be either a 1 inch cylinder cam lock key #39504 or a combination lock. The combination for the lock must be on record with the department.~~

~~Deviations from this section due to security concerns must be approved by the department via a variance request.~~

~~Note: The cities of Seattle and Spokane may designate their own options for keys and lock box arrangement via their rule processes.~~

~~(3) ASME A17.1-2.27.8 Local fire or building code authorities may specify the requirements for a uniform keyed lock box and its location to contain the necessary keys (this will be in addition to the requirements listed in subsection (1) or (2) of this section). Where required, a lock box, including its lock and other components, shall conform to the requirements of UL 1037 (see Part 9). These keys shall be kept on the premises in a location readily accessible to firefighters and emergency personnel, but not where they are available to the public.~~

~~(4) ASME A17.1 Part 8 contains general requirements for new and existing equipment. Except reference ASME A17.1-2.27.8 shall not apply to phase one and two key switches installation on existing elevators installed prior to the adoption of this code unless required by the local code official.) Refer to WAC 296-96-02580.~~

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-23101** ~~((What are the conveyance number requirements?))~~ **Identification numbers.** ~~((Conveyance numbers shall be permanently painted or etched to the controller or if space does not allow, the disconnect switch. The numbers shall be legible and at a minimum of one-half inch in height or as directed by the authority having jurisdiction.))~~ Where identification numbers are not provided for multiple conveyances within the same building, the equipment shall be required to comply with ASME A17.1/CSA B44, Section 2.29.

## Subpart I

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-23115** (~~((What safety requirements apply to inspecting and maintaining))~~) Access to overhead sheaves((?)). (1) Overhead sheaves ~~((spaces requiring inspection and maintenance must be located so adequate access and decking is available to insure the safety of inspection and maintenance personnel))~~ shall be provided with a means of access for inspections and maintenance.

(2) Guardrails ~~((must))~~ shall be installed where working platform or decking is provided and does not cover the complete hoistway.

(3) Guardrails ~~((and deck supports must be similar to those required for the top of an elevator car and may be made of either wood or metal compatible with the existing hoistway construction))~~ shall comply with ASME A17.1/CSA B44, Section 2.10.

(4) Inspections and maintenance may be performed from the top of ~~((an))~~ the elevator car ~~((if))~~ providing access is attainable without the use of a ladder ~~((is not required to perform these functions))~~.

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-23116** (~~((What requirements apply to))~~) Car numbers((?)). In any building with more than one elevator, numbers at least ~~((two inches))~~ 2 in. in height identifying each car ~~((must))~~ 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.

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-23117** (~~((What requirements apply to top of))~~) Car top railings for traction elevators((?)). A standard railing ~~((must))~~ shall be installed on the top of all traction elevators where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds ~~((twelve inches))~~ 12 in. horizontal clearance. The railing shall be substantially constructed of metal and shall consist of a top rail, intermediate rail and post. The top rail shall have a smooth surface and the upper surface shall be located at

a vertical height of ~~((forty-two inches))~~ 42 in. The intermediate rail shall be located approximately halfway between the top rail and the car top. There ~~((must))~~ shall be a minimum of ~~((six inches))~~ 6 in. of clearance above the top rail when the car is at its furthest point of travel. If the vertical clearance from the car top to the hoistway enclosure, including gravity-stopping distance, is less than 48 ~~((inches))~~ in. away, the top handrail height may be reduced to 42 ~~((inches))~~ in. plus or minus 3 ~~((inches))~~ in. If the clearances will not allow a ~~((39-inch))~~ 39 in. handrail, do not install the top of car railing, instead provide signage required by WAC 296-96-23119.

EXEMPTION:     This requirement does not apply to electric manlifts.

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-23118 ~~((What requirements apply to top of))~~ Car top railings for hydraulic elevators ((in unenclosed hoistways?)).** A standard railing ~~((must))~~ shall be installed on the top of hydraulic elevators installed in unenclosed hoistways. The railing shall be substantially constructed of metal and shall consist of a top rail, intermediate rail and post. The top rail shall have a smooth surface and, the upper surface shall be located at a vertical height of 42 ~~((inches))~~ in. plus or minus 3 ~~((inches))~~ in. The intermediate rail shall be located approximately halfway between the top rail and the car top. There ~~((must))~~ shall be a minimum of ~~((six inches))~~ 6 in. of clearance above the top rail when the car is at its furthest point of travel on the mechanical stop. If the vertical clearance of 6 ~~((inches))~~ in. cannot be achieved, do not install car top railing, instead provide signage required by WAC ~~((296-96-119 [WAC 296-96-23119]))~~ 296-96-23119.

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-23119 ~~((What signage requirements apply to traction elevators with minimal overhead clearance?))~~ Low overhead signs.** Elevators that do not have a minimum of ~~((twenty-four inches of))~~ 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 ~~((must-have))~~ shall be provided with caution signage. A sign ~~((must))~~ shall be located near the top of car inspection station. An additional sign ~~((must))~~ shall be posted on the hoistway wall. This sign ~~((must))~~ shall be visible when accessing the car top. The sign shall consist of alternating ~~((four-inch))~~ 4 in. diagonal red and white stripes and ~~((must))~~ shall clearly state "danger low clearance" in lettering not less than ~~((four inches))~~ 4 in. in height.

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

~~WAC 296-96-23122 ((What type of lighting must be installed in machine rooms and machinery space?))~~ Machine room and machinery space illumination. ((Permanent electric lighting must be provided in all machine rooms and machinery spaces. All installations prior to 7/1/2004 require illumination to be at least 10 foot-candles at floor level.)) Elevators installed under the 1996 and earlier editions of ASME A17.1 shall have a minimum of 10 foot-candles of illumination at floor level within the working areas in machine rooms and machinery spaces.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

~~WAC 296-96-23123 ((What type of service outlets must be installed in elevator cars, hoistways and machinery spaces?))~~ Duplex and simplex receptacles. ((Service outlets)) Duplex and simplex receptacles, where provided, ((must)) shall be permanently grounded.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

~~WAC 296-96-23126 ((What protective measures should be taken in hoistways, machine rooms and machinery spaces to insure safety?))~~ Guarding of equipment. (1) Where feasible, gears, sprockets, sheaves, cables, tapes, belts and chains ((must)) shall be fitted with suitable guards to prevent accidental contact(, where feasible)).  
(2) Openings in machine room floors above the hoistway must be guarded to prevent tools from falling into the hoistway below.  
(3) Open grating in machine room floors shall reject a ball 1/2 in. in diameter.  
(4) Ventilation grids where exposed to the hoistway below ((must)) shall be firmly ((bolted or secured)) fastened to prevent accidental removal and ((must)) shall be fitted with 1/2 ((inch)) in. wire mesh under the grid.

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

~~WAC 296-96-23130 ((What requirements apply to))~~ Pit access((?)).  
~~((1))~~ Pits must be accessible to all authorized personnel.  
~~(2)~~ Access doors, if provided, must be kept closed and locked.  
~~(3))~~ Access ladders ((must)) shall be installed in elevator pits 3 ((feet)) ft. or deeper. Where constraints prohibit the installation of a pit ladder conforming to ASME A17.1/CSA B44, 2.2.4.2, a retracta-

ble 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.

AMENDATORY SECTION (Amending WSR 07-24-041, filed 11/30/07, effective 1/1/08)

**WAC 296-96-23132** ~~((What lighting requirements apply to pits?))~~  
**Pit illumination and receptacles.** (1) Light fixtures shall be installed in all pits.

(a) Installations prior to 7/1/2004 require a permanent lighting fixture producing at least 5 foot-candles as measured in the working areas at the pit floor ~~((must be installed in all pits))~~.

~~((+2))~~ (b) A light switch ~~((must))~~ shall be installed and ~~((must))~~ shall be accessible from the pit access door.

~~((+3))~~ (2) A permanent ~~((grounded outlet must))~~ GFCI duplex receptacle shall be provided in all pits.

(3) Where more than one elevator shares a common pit, a GFCI duplex receptacle shall be located in the area below each elevator.

~~((Section 4  
Protection of Space Below Hoistways))~~

~~((Section 5  
Hoistway Entrances))~~

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-23158** ~~((What requirements apply to elevator floor numbers?))~~ **Identification of floors.** ~~((Elevator hoistways must have floor numbers at least 4 inches high and placed on the walls and/or doors of hoistways at intervals so that a person in a stalled elevator, upon opening the car door 4 inches, could determine the floor position.))~~ Hoistways shall be provided with floor numbers complying with ASME A17.1/CSA B44 2.29.2.

**Subpart II  
Existing Elevators**

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-23200** (~~((What is the scope of Subpart II?))~~) Scope. Subpart II, Machinery and Equipment for Electric Elevators, is a minimum standard for all existing electric elevators. It applies to other equipment only as referenced in the applicable Subpart.

~~((Section 1  
Buffers and Bumpers))~~

Section ((2  
Counterweights)) 1  
Compensating Means Connections

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-23205** (~~((What requirements apply to counterweights?))~~) Compensating means. (~~((On rod type counterweights, the rod nuts must be cotter pinned and the tie rods must be protected so that the head weight cannot crush the tie rods on buffer engagement.~~

(1) The weights must be protected so that they cannot be dislodged.

(2)) Compensating chains or ropes ((~~must~~)) shall be fastened to the counterweight ((~~from~~)) frame directly or to a bracket fastened to the frame and ((~~must~~)) shall not be fastened to the tie rods.



**Section ((12)) 2**  
**Suspension Systems and Their Connections**

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-23283 ((What requirements apply to rope)) Missing data tags((?))**. ((At each rope renewal, a new metal data tag must be securely attached to one of the wire rope fastenings. Rope data tags must be durable and readily legible. The height of letters and figures must be no less than 1/16 inch. This data tag must bear the following information:

- (1) ~~The diameter in inches;~~
- (2) ~~The manufacturer's rated breaking strength;~~
- (3) ~~The grade of material used;~~
- (4) ~~The month and year the ropes were installed;~~
- (5) ~~Whether nonpreformed or preformed;~~
- (6) ~~Construction classification~~
- (7) ~~Name of the person or firm who installed the ropes;~~
- (8) ~~Name of the manufacturer of the rope;~~
- (9) ~~The number of ropes; and~~

(10) ~~The date on which the rope was resocketed or other types of fastening changed.)~~ In the event an existing data tag cannot be located, a replacement tag shall be created specifying the date of verification of known information.

**Section 3**  
**Absence of Safety Bulkheads**

AMENDATORY SECTION (Amending WSR 04-15-104, filed 7/20/04, effective 8/20/04)

**WAC 296-96-23303 ((What requirements apply to)) Hydraulic elevators without safety bulkheads((?))**. (1) Oil levels ((must)) shall be monitored and tracked in a log kept in the machine room.

(2) The log ((must)) shall contain the date ((the)) oil was added, the reason for the loss of oil, and the amount of oil added.

(3) If the reason for the loss of oil cannot be determined, the unit must be immediately taken out of service and ((the cylinder must be replaced)) the tests specified in 8.6.5.14.1 and 8.6.5.14.2 shall be performed.

((Note: This section becomes effective August 20, 2004.))

**Subpart ((VI)) III  
Alterations, Repairs, Maintenance, and Testing**

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-23605 ((ASME A17.1-8.6.4 Maintenance,)) Examination ((and testing of elevators)) of standard application material lifts, special purpose lifts, electric manlifts, and hand elevators.** (1) ((The maintenance,)) Examination((, and testing of electric elevators shall conform to ASME A17.1-8.6.1 through 8.6.4 and the applicable sections of 8.11.2 as amended below.)) standard application material lifts, special purpose lifts, electric manlifts and hand elevators shall conform to the following:

(a) ((ASME A17.1-8.11.2.1 Periodic)) Annual examination requirements for electrical elevators. Service providers' shall furnish documentation to include the following ((when identifying)) components or systems((, or both,)) that shall be examined if installed.

(b) ((ASME A17.1-8.11.2.1.1)) Inside car:

(i) Door reopening device;

(ii) Stop switches;

(iii) Operating control devices\*;

(iv) ((Car floor and landing sill\*\*;

~~(v)~~) Car auxiliary lighting\*\*;

((~~(vi)~~)) (v) Car emergency signal;

((~~(vii)~~)) (vi) Car door or gate;

((~~(viii)~~)) (vii) Door closing force;

((~~(ix)~~ Power closing of doors or gates;

~~(x)~~ Power opening of doors or gates;

~~(xi)~~ Car enclosure\*;

~~(xii)~~ Emergency exit;

~~(xiii)~~) (viii) Ventilation\*;

((~~(xiv)~~ Rated load, platform area, and data plate\*;

~~(xv)~~) (ix) Restricted opening of car or hoistway doors;

((~~(xvi)~~)) (x) Car ride\*((;

~~(xvii)~~ Door monitoring systems)); and

((~~(xviii)~~)) (xi) Stopping accuracy\*.

(c) ((ASME A17.1-8.11.2.1.2)) Machine room/control room:

(i) ((Equipment exposure to weather;

~~(ii)~~ Means of access\*\*;

~~(iii)~~ Headroom\*\*;

~~(iv)~~ Means necessary for tests;

~~(v)~~ Inspection and test panel;

~~(vi)~~ Lighting and receptacles\*\*;

~~(vii)~~ Enclosure of machine room/control room\*\*;

~~(viii)~~ Ventilation;

~~(ix) Pipes, wiring, and ducts\*\*;~~  
~~(x)) Guarding of equipment;~~  
~~((xi) Numbering of elevators, machines, and disconnect switches;~~  
~~(xii) Maintenance path and maintenance clearance\*\*;~~  
~~(xiii)) (ii) Stop switch;~~  
~~((xiv)) (iii) Disconnecting means and control;~~  
~~((xv)) (iv) Controller wiring, fuses, grounding, etc.;~~  
~~((xvi)) (v) Machinery supports and fastenings;~~  
~~((xvii)) (vi) Drive machine brake;~~  
~~((xviii)) (vii) Traction drive machines;~~  
~~((xix)) (viii) Gears, bearings, and flexible connections;~~  
~~((xx)) (ix) Winding drum machine;~~  
~~((xxi) Belt or chain drive machine;~~  
~~(xxii)) (x) Absorption of regenerated power;~~  
~~((xxiii)) (xi) Traction sheaves;~~  
~~((xxiv)) (xii) Secondary and deflector sheaves;~~  
~~((xxv)) (xiii) Rope fastenings;~~  
~~((xxvi)) (xiv) Operating devices;~~  
~~((xxvii)) (xv) Code data plate\*\*;~~  
~~((xxviii)) (xvi) AC drives from a DC source;~~  
~~((xxix)) (xvii) Slack rope devices;~~  
~~((xxx)) (xviii) Wiring diagrams; and~~  
~~((xxxi)) (xix) Rope retainers or restraints ((for seismic risk zones; and~~  
~~(xxxii) Seismic and displacement switches)).~~  
~~(d) ((ASME A17.1 8.11.2.1.3)) Top-of-car:~~  
~~(i) Top-of-car stop switch;~~  
~~(ii) Car top light and outlet;~~  
~~(iii) Top-of-car operating device working platforms;~~  
~~(iv) ((Top-of-car clearance and refuge space\*\*;~~  
~~(v) Top counterweight clearance;~~  
~~(vi)) Car, overhead, and deflector sheaves;~~  
~~((vii)) (v) Crosshead data plate\*\*;~~  
~~((viii) Top emergency exit;~~  
~~(ix) Floor and emergency identification numbering\*\*;~~  
~~(x) Hoistway construction\*\*;~~  
~~(xi) Hoistway smoke control\*\*;~~  
~~(xii) Pipes, wiring, and ducts\*\*;~~  
~~(xiii) Windows, projections, recesses, and setbacks\*\*;~~  
~~(xiv) Hoistway clearance;~~  
~~(xv) Multiple hoistways\*\*;~~  
~~(xvi)) (vi) Traveling cables and junction boxes;~~  
~~((xvii)) (vii) Door and gate equipment;~~  
~~((xviii)) (viii) Car frame and stiles;~~  
~~((xix)) (ix) Guide rails fastening and equipment;~~  
~~((xx)) (x) Governor rope;~~  
~~((xxi)) (xi) Governor releasing carrier;~~  
~~((xxii)) (xii) Fastening and hitch plate;~~  
~~((xxiii)) (xiii) Suspension means;~~  
~~((xxiv)) (xiv) Compensation means;~~  
~~((xxv) Machinery space/control space;~~  
~~(xxvi)) (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;~~  
~~((xxvii) Equipment exposure to weather;~~

~~(xxviii))~~ (xvi) Machinery supports and fastenings;  
~~((xxix))~~ (xvii) Guarding of exposed auxiliary equipment;  
~~((xxx) Anchoring of beams and supports in seismic risk zone 2 or greater;~~  
~~(xxxi))~~ (xviii) Rope retainers and snag guards ((in seismic risk zone 2 or greater));  
~~((xxxii))~~ (xix) Position restraints ((in seismic risk zone 2 or greater);  
~~(xxxiii) Car and counterweight guide rails system in seismic risk zone 2 or greater;~~  
~~(xxxiv) For seismic risk zones 2 or greater, horizontal clearance for car and counterweight, snag point clearance and rail fastening;~~  
~~(xxxv) Seismic risk zone 2 or greater rope retainers/restraints and snag guards;~~  
~~(xxxvi) Seismic risk zone 2 or greater rope retainer and snag guard for compensating ropes or chains and compensating tension sheave fastening; and~~  
~~(xxxvii) Sheaves with nonmetallic groove surfaces)).~~  
(e) ((ASME A17.1 8.11.2.1.4)) Outside hoistway:  
(i) Car platform guard;  
(ii) Hoistway doors;  
(iii) Vision panels\*;  
(iv) Hoistway door locking devices;  
(v) Access to hoistway;  
~~(vi) ((Sequence operation;~~  
~~(vii) Hoistway enclosure;~~  
~~(viii) Elevator parking devices;~~  
~~(ix))~~ Emergency and access hoistway openings;  
~~((x))~~ (vii) Separate counterweight hoistway;  
~~((xi) Means necessary for tests;~~  
~~(xii) Inspection and test panel (ASME A17.1 2.7.6.5), inspection operation (ASME A17.1 2.26.1.4.1), and inspection operation with open door circuits; and~~  
~~(xiii) Equipment exposure to weather.~~  
~~(f) ASME A17.1 8.11.2.1.5))~~ (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 space/control space;~~  
~~(vii))~~ Working areas in the pit;  
(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;  
~~((viii) Equipment exposure to weather;~~  
~~(ix))~~ (vii) Machinery supports and fastenings;  
~~((x))~~ (viii) Guarding of exposed auxiliary equipment; and  
~~((xi))~~ (ix) Pit inspection operation.  
~~((g) ASME A17.1 8.11.2.1.7 Working platform;~~  
~~(i) Working platforms; operating instructions;~~  
~~(ii) Retractable stops; retractable stop electrical device; and~~  
~~(iii) Inspection operation.))~~

**Note:** (\*) May be combined with other items on the log.  
(\*\*) A visual component that must be reported to the owner.

(2) ~~((The maintenance, examination, and testing of hydraulic elevators shall conform to ASME A17.1 8.6.1 through ASME A17.1 8.6.3 and the applicable requirements of ASME A17.1 8.6.4, ASME A17.1 8.6.5, and ASME A17.1 8.11.3, as amended below.~~

~~(a) Periodic~~) Annual examination requirements for hydraulic elevators. Service providers shall furnish documentation to include the following ~~((when identifying))~~ components or systems ~~((, or both,))~~ that shall be examined if installed.

~~((b) ASME A17.1 8.11.3.1.1))~~ (a) Inside the car:

(i) Door reopening device;

(ii) Stop switches;

(iii) Operating control devices\*;

(iv) ~~((Sill and car floor\*\*;~~

~~(v))~~ Car auxiliary lighting ~~((and receptacles\*\*));~~

~~((vi))~~ (v) Car emergency signal;

~~((vii))~~ (vi) Car door or gate;

~~((viii))~~ (vii) Door closing force;

~~((ix) Power closing of doors or gates;~~

~~(x) Power opening of doors or gates; car enclosure\*;~~

~~(xi))~~ (viii) Emergency exit;

~~((xii))~~ (ix) Ventilation\*;

~~((xiii))~~ (x) Signs and operating device symbols;

~~((xiv) Rated load, platform area, and data plate;~~

~~(xv))~~ (xi) Restricted opening of car or hoistway doors;

~~((xvi))~~ (xii) Car ride\* ~~((;~~

~~(xvii) Door monitoring system));~~ and

~~((xviii))~~ (xiii) Stopping accuracy\*.

~~((c) ASME A17.1 8.11.3.1.2))~~ (b) Machine room/control room:

(i) ~~((Equipment exposure to weather;~~

~~(ii) Means of access\*\*;~~

~~(iii) Headroom\*\*;~~

~~(iv) Means necessary for tests;~~

~~(v) Inspection and test panel;~~

~~(vi) Lighting and receptacles\*\*;~~

~~(vii) Enclosure of machine room/spaces and control room/spaces\*\*;~~

~~(viii) Ventilation and heating;~~

~~(ix) Pipes, wiring, and ducts\*\*; guarding of equipment;~~

~~(x) Numbering of elevators, machines, and disconnect switches;~~

~~(xi) Maintenance path and maintenance clearance\*\*;~~

~~(xii))~~ Stop switch;

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

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

~~((xv))~~ (iv) Hydraulic power unit;

~~((xvi))~~ (v) Tanks\*\* ~~((;~~

~~(xvii) Recycling operation));~~ and

~~((xviii))~~ (vi) Wiring diagrams.

~~((d) ASME A17.1 8.11.2.1.3))~~ (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-of-car clearance and refuge space\*\*;~~

~~(v))~~ Top emergency exit;

~~((vi) Floor and emergency identification numbering\*\*;~~

~~(vii) Hoistway construction\*\*;~~

~~(viii) Hoistway smoke control\*\*;~~

~~(ix) Pipes, wiring, and ducts\*\*;~~

~~(x) Windows, projections, recesses, and setback\*\*;~~

~~(xi) Hoistway clearances\*\*;~~  
~~(xii) Multiple hoistways\*\*;~~  
~~(xiii)) (v) Traveling cables and junction boxes;~~  
~~((xiv)) (vi) Door and gate equipment;~~  
~~((xv)) (vii) Car frame and stiles;~~  
~~((xvi)) (viii) Guide rails fastening and equipment;~~  
~~((xvii)) (ix) Governor rope;~~  
~~((xviii)) (x) Wire rope fastening and hitch plate;~~  
~~((xix)) (xi) Suspension rope;~~  
~~((xx)) (xii) Slack rope device;~~  
~~((xxi)) (xiii) Traveling sheave;~~  
~~((xxii)) (xiv) Crosshead data plate\*\*((;~~  
~~xxiii) Equipment exposure to weather;~~  
~~xxiv) Machinery supports and fastenings)); and~~  
~~((xxv)) (xv) Guarding of equipment.~~  
~~((e) ASME A17.1 8.11.3.1.4)) (d) Outside hoistway:~~  
 (i) Car platform guard;  
 (ii) Hoistway doors;  
 (iii) Vision panels\*;  
 (iv) Hoistway door locking devices;  
 (v) Access to hoistway; and  
~~((vi) Power closing of hoistway doors;~~  
~~vii) Sequence operation;~~  
~~viii) Hoistway enclosure\*;~~  
~~ix) Elevator parking devices;~~  
~~x)) (vi) Emergency doors in blind hoistways;~~  
~~((xi) Inspection and test panel (ASME A17.1 3.7.1 and ASME A17.1 2.7.6.5), inspection operation (ASME A17.1 2.26.1.4.1), and inspection operation with open door circuits (ASME A17.1 2.26.1.5); and~~  
~~xii) Equipment exposure to weather.~~  
~~(f) ASME A17.1 8.11.3.1.5)) (e) Pit:~~  
 (i) Pit access, lighting, stop switch, and condition;  
 (ii) Bottom clearance((,)) and runby((, and minimum refuge space\*\*));  
 (iii) Plunger and cylinder;  
 (iv) Traveling cables;  
 (v) Car frame and platform;  
 (vi) Supply piping;  
 (vii) Governor rope tension device;  
 (viii) ((Equipment exposure to weather;  
~~ix)) Machinery supports and fastenings;~~  
~~((x)) (ix) Guarding of exposed auxiliary equipment((;~~  
~~xi) Pit inspection operation; and~~  
~~xii) Seismic overspeed valve and pipe support)).~~

**Note:** (\*) May be combined with other items on the log.  
 (\*\*) A visual component that must be report to the owner.

~~((g) If it is determined the hydraulic cylinders system is not being maintained per ASME A17.1 8.6.5.7 and ASME A17.1 8.6.5.14, cylinders installed below ground shall conform to ASME A17.1 3.18.3.4 or to ASME A17.1 8.6.5.8(a) or ASME A17.1 8.6.5.8(b).~~

~~(h) The relief valve adjustment shall be examined to ensure that the seal is intact. If the relief valve seal is not intact, checks shall be conducted in accordance with ASME A17.1 8.6.5.14.1 and the state hydraulic overpressure form shall be used to document compliance. The form shall be left on site and located in the machine room in a conspicuous location.~~

~~(3) The maintenance and examination of dumbwaiter, rack and pinion, screw column, hand, incline, limited use limited application, private residence\*, power sidewalk, rooftop, special purpose, and shipboard and construction elevators shall conform to ASME A17.1 8.6.1 through ASME A17.1 8.6.3 and the applicable requirements of ASME A17.1 8.6 and ASME A17.1 8.11 as amended in this chapter.~~

**Note:** ~~(\*) Chapter 70.87 RCW exempts private resident elevators from periodic inspections, but these maintenance guidelines provide the proper outline for the level of service that should be provided.~~

~~(4) The maintenance of material lifts without automatic transfer devices, hand pull and electric manlift, residential incline elevators shall conform to ASME A17.1 8.6.1 through ASME A17.1 8.6.3 and the applicable requirements of ASME A17.1 8.6 and ASME A17.1 8.11, as amended in this chapter\*.~~

~~Maintenance, examination and test requirements shall only apply to the corresponding installation requirements in chapter 296 96 WAC.~~

**Note:** ~~(\*) Chapter 70.87 RCW exempts private resident elevators from periodic inspections, but these maintenance guidelines provide the proper outline for the level of service that should be provided.~~

~~(5) Periodic examination requirements for conveyances outlined in WAC 296 96 23605 (3) and (4). Service providers shall include the following when identifying components or systems, or both, that shall be examined if installed.~~

~~(a) ASME A17.1 8.11.5.1 Sidewalk elevator, WAC 296 96 23605 (1) or (2).~~

~~(b) ASME A17.1 8.11.5.2 Private resident elevators, WAC 296 96 23605 (1) or (2)\*.~~

~~(c) ASME A17.1 8.11.5.3 Hand elevators, WAC 296 96 23605(1).~~

~~(d) ASME A17.1 8.11.5.4 Dumbwaiters, WAC 296 96 23605 (1) or (2).~~

~~(e) ASME A17.1 8.11.5.5 Material lifts and dumbwaiters with automatic transfer devices, WAC 296 96 23605 (1) or (2).~~

~~(f) ASME A17.1 8.11.5.6 Special purpose personnel elevators, WAC 296 96 23605 (1) or (2).~~

~~(g) ASME A17.1 8.11.5.7 Inclined elevators, WAC 296 96 23605 (1)(a) through (2) or (3).~~

~~(h) ASME A17.1 8.11.5.8 Shipboard elevators, WAC 296 96 23605 (1) or (2).~~

~~(i) ASME A17.1 8.11.5.9 Screw column elevators, WAC 296 96 23605 (1) or (2).~~

~~(j) ASME A17.1 8.11.5.10 Rooftop elevators, WAC 296 96 23605 (1) or (2).~~

~~(k) ASME A17.1 8.11.5.11 Rack and pinion elevators, WAC 296 96 23605 (1) and (2).~~

~~(l) ASME A17.1 8.11.5.12 Limited use/limited application elevators, WAC 296 96 23605 (1) or (2).~~

~~(m) ASME A17.1 8.11.5.13 Elevators used for construction, WAC 296 96 23605 (1) or (2).~~

~~(n) These conveyances shall be subject to the corresponding ASME A17.1 8.11 examination requirements as applicable (see ASME A17.1 for sections references). The applicable items above shall be documented on the required records.~~

**Note:** Chapter 70.87 RCW exempts these elevators from periodic inspections, but these examination guidelines provide the proper outline for the level of service that should be provided.

~~(6) The maintenance and examination of escalators shall conform to ASME A17.1 8.6.1 through ASME A17.1 8.6.3 and ASME A17.1 8.6.8 and the applicable sections of ASME A17.1 8.11.4. The maintenance and examination of moving walks shall conform to ASME A17.1 8.6.1 through ASME A17.1 8.6.3, ASME A17.1 8.6.9 and the applicable sections of ASME A17.1 8.11.4, as amended below.~~

~~(a) Periodic examination requirements for escalators and moving walks: Service providers shall include the following when identifying components or systems, or both, that shall be examined if installed.~~

~~(b) ASME A17.1 8.11.4.1 Escalators and moving walks:~~

~~(i) General fire protection;~~

~~(ii) Geometry;~~

~~(iii) Entrance and egress;~~

~~(iv) Lighting;~~

~~(v) Caution signs;~~

~~(vi) Combplate;~~

~~(vii) Deck barricade guard and antislid devices\*;~~

~~(viii) Steps and treadway;~~

~~(ix) Operating devices;~~

~~(x) Skirt obstruction devices;~~

~~(xi) Handrail entry device;~~

~~(xii) Egress restriction device;~~

~~(xiii) Balustrades;~~

~~(xiv) Ceiling intersection guards\*;~~

~~(xv) Skirt panels;~~

~~(xvi) Outdoor protection\*;~~

~~(xvii) Additional stop switch(es);~~

~~(xviii) Controller and wiring; and~~

~~(xix) Code data plate\*\*, other: Annual clean down WAC 296-96-23610(7).~~

Note: (\*) May be combined with other items on the log.  
(\*\*) A visual component that must be reported to the owner.))

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-23606 ((ASME A17.1-8.11 Covers periodic inspections, examinations, and tests of existing ASME A17.1 installations.)) In-stallations placed in voluntary red tag status. (1) ((ASME A17.1-8.11.1.1.1:**

~~(a) Annual inspections shall be made by an inspector employed by the department having jurisdiction;~~

~~(b) The inspector shall submit a signed written report to the department containing the following information:~~

~~(i) Date of inspection; and~~

~~(ii) Code deficiencies noted during the inspection and a statement as to the corrective action to be taken, if any.~~

~~(2) Periodic or routine examinations shall be made by a person authorized by the department.~~

~~(a) Persons authorized are licensed mechanics and other authorized persons under RCW 70.87.270.~~

~~(b) The authorized mechanic shall submit a signature on the maintenance control record containing the following information:~~

~~(i) Date of examination(s);~~

~~(ii) ASME A17.1-8.11 components or systems that have been examined and performed according to this chapter;~~

~~(iii) Code deficiencies noted during the examination and a statement on the repair or replacement log as to corrective action taken, if any.~~

~~(3) ASME A17.1-8.11.1.4 Installation placed out of service.~~



~~(a))~~ 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 ~~((must))~~ shall be up to date, prior to removal of the red tag.

~~((b))~~ (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 ~~((A17.1-8.11))~~ A17.1/CSA B44, 8.11 items, before being placed back in service.

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

#### **Subpart ~~((VII))~~ IV Lifts for Physically Handicapped**

AMENDATORY SECTION (Amending WSR 01-02-026, filed 12/22/00, effective 1/22/01)

**WAC 296-96-23700 ~~((What is the scope of Subpart VII,))~~ Lifts for ~~((Physically Handicapped?))~~ persons with disabilities.** The department's rules regulating lifting devices for ~~((physically handicapped))~~ persons with disabilities people are described in this subpart.

AMENDATORY SECTION (Amending WSR 13-24-066, filed 11/27/13, effective 1/1/14)

**WAC 296-96-23701 Periodic examinations and ~~((safety))~~ tests on commercial accessibility lifts.** (1) ~~((For five year and category 5 testing,))~~ A test tag in accordance with ~~((WAC 296-96-23610(4),))~~ ASME A18.1, Section 10.3, shall be attached and visible. A full-load safety test ~~((must))~~ shall be performed with weights on all commercial accessibility equipment.

(2) ~~((ASME A18.1-10.1.2))~~ The owner ~~((must))~~ shall ensure that the accessibility lifts are routinely examined and ~~((tested according to section 10.2 and periodically tested to 10.3. All conveyances must be tested to the applicable code(s) by an elevator mechanic licensed in the appropriate category for the lift being tested. An inspector employed by the department may witness the examinations or test))~~ maintained in accordance with ASME A18.1, Section 10.2.

(3) Documentation of tests, examinations and maintenance shall be readily accessible on-site.

Subpart ((VIII  
~~Sidewalk Elevators~~)) V  
Standard Application Material Lifts

NEW SECTION

**WAC 296-96-24000 Applicable codes and rules.** Standard application 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.

If the department determines that a standard application 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.

**Subpart VIII  
Inclined Private Residence Elevators**

NEW SECTION

**WAC 296-96-24100 Definition of inclined private residence elevators.** "Inclined private residence elevator" means a device constructed and operated for transporting people or property from one elevation to another at an angle of inclination of seventy degrees or less from the horizontal. Essentially, it is a car or platform traveling on guides or guiding members in an inclined plane.

Note: For purposes of this chapter, devices installed indoors on stairways that utilize chairs to carry passengers are not considered "inclined passenger elevators."

NEW SECTION

**WAC 296-96-24103 Requirements for existing inclined elevators.** Inclined private residence elevators shall comply with the rules adopted by the department that were in effect at the time the elevator 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.

If the department determines that an inclined private residence elevator 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 unless documentation can be provided to determine the date the conveyance was installed (e.g., sales receipts, building permits, or other appropriate documentation).

NEW SECTION

**WAC 296-96-24106 Alterations.** If the inclined private residence elevator is altered, only the component(s) that was altered shall comply with the applicable rules adopted by the department in effect at the time the conveyance was altered. If the department determines that an elevator was altered without a permit and inspection, the conveyance shall be required to comply with the applicable rules adopted by the department at the time the noncompliant alteration was identified.

NEW SECTION

**WAC 296-96-24109 Minimum maintenance requirements.** Owners of inclined private residence elevators are responsible for the following:

- (1) Maintaining elevators and mechanical parts in a safe condition; and
- (2) Ensuring that all devices and safeguards required by these regulations are maintained in good working order. The department recommends maintenance, examinations, and safety tests be performed and documented to the applicable sections of WAC 296-96-23604 and 296-96-23605.

NEW SECTION

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

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.

NEW SECTION

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

- (1) A railing at least 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

(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 1.5 in. diameter ball.

#### NEW SECTION

**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. and with a maximum stroke of 1 1/2 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.

#### NEW SECTION

**WAC 296-96-24121 Machinery beams and supports.** (1) All machinery and sheaves shall be sufficiently secured and supported to prevent any part from becoming loose or displaced. Beams directly supporting machinery shall be made of steel, sound timber or reinforced concrete.

(2) Beams and support loads shall be computed as follows:

(a) The total load on the beams shall be equal to the weight of all apparatus resting on the beams plus twice the maximum load suspended from the beams.

(b) The load resting on the beams shall include the complete weights of the driving machine, sheaves, controller, etc.

(c) The load suspended from the beams shall include the sum of the tensions in all ropes suspended from the beams.

(3) The elevator driving machine or sheaves shall not be fastened to the underside of the supporting beams at the top of the hoistway.

EXCEPTION: Cast iron in tension shall not be used for supporting members for idler and deflecting sheaves where hung beneath beams.

(4) The factor of safety for beams and support shall be no less than:

(a) 5 For steel; and

(b) 6 For timber and reinforced concrete.

NEW SECTION

**WAC 296-96-24124 Car platforms.** The minimum rated load shall be not less than the following:

(1) For net platform areas up to and including 12 ft<sup>2</sup>, the rated load shall be not less than 40 lbs./ft<sup>2</sup> or 350 lbs. whichever is greater.

(2) For net platform areas greater than 12 ft<sup>2</sup>, the rated load shall be based upon 62.5 lbs./ft<sup>2</sup>.

NEW SECTION

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

NEW SECTION

**WAC 296-96-24130 Construction requirements.** (1) All of the components associated with inclined private residence elevators shall be built to a minimum safety factor of 5, unless otherwise specified in this part.

(2) Inclined private residence elevator car frames and platforms shall:

(a) Be built of metal, a combination of metal and wood or other materials of equal strength;

(b) Be suitably prepared and/or protected for exposure to weather.

(3) Incline car chassis shall:

(a) Be built of metal, except for the guiding members; and

(b) Chassis guiding members shall be retained and/or enclosed in guides so that the chassis cannot be derailed.

(4) Cast iron shall not be used in the construction of a car frame or chassis.

(5) A car shall have only one compartment.

NEW SECTION

**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 42 in.;

(2) Enclosed with a type of material that will reject a 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. or above 1 in.;

(5) Weather resistant plastic and tempered safety glass may be used in car enclosures.

#### NEW SECTION

**WAC 296-96-24136 Car doors and gates.** (1) All car entrances shall be protected by a door or gate. The height of the door or gate shall be at least 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 3 in. diameter ball. After the effective date of these rules the diameter will be reduced to 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.

#### NEW SECTION

**WAC 296-96-24139 Capacity and data plates.** (1) The manufacturer 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. 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.

#### NEW SECTION

**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 fastenings and supports shall, at the point of support, deflect 1/8 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. 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.

NEW SECTION

**WAC 296-96-24145 Counterweights.** (1) Counterweights, where used, shall be in a guide or guiding members.

(2) Counterweights shall not be of sufficient weight to cause undue slackening of any car hoisting rope or chain during acceleration or retardation of the car. Counterweight weight section(s) shall be mounted in structural or formed metal frames which are designed to retain weights securely in place.

EXCEPTION: Counterweights are permitted to be constructed of a single metal plate.

NEW SECTION

**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. in diameter. Tiller rope construction shall not be used.

(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.



NEW SECTION

**WAC 296-96-24151 Testing of safeties and governors.** (1) The safety shall be tested before the inclined private residence elevator is put into service. It shall be tested while the elevator is carrying its rated load.

(2) Governors on instantaneous type safeties shall be tested by manually tripping the governor while the elevator is traveling at its rated speed. Creating sufficient slack in the rope and dropping the elevator is a method of testing speed governors located on an elevator or chassis.

NEW SECTION

**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.
- (d) Roped-hydraulic machines shall be permitted to be used.

#### NEW SECTION

**WAC 296-96-24157 Terminal stopping switches.** A hoistway shall be equipped with normal upper and lower terminal stopping switches that are activated by an elevator chassis. Normal upper and lower terminal stopping switches shall stop the elevator at the normal top and bottom terminals of travel.

(1) A hoistway shall be equipped with final terminal stopping switches that are activated by an elevator chassis. These switches shall stop the elevator if the elevator travels beyond the normal terminals and prevent the elevator from moving in either direction.

(2) Winding drum machines shall be permitted to use a slack cable switch instead of a bottom final terminal switch.

(3) Normal and final terminal stopping switches shall not control the same switches on the controller unless at least two separate and independent switches are used. At least two of these separate switches shall be closed in order to complete the motor and brake circuits for each direction of travel.

#### NEW SECTION

**WAC 296-96-24160 Operation.** (1) If the activation of the elevator is by key switch or key pad, it shall conform to the requirements of (a) and (b) of this subsection. The department may approve alternative methods of equal security such as key card or magnetic swipe card. Methods shall conform to the following:

(a) The key or code shall be entered each time to move the elevator.

(b) Key-operated switches shall be of the spring return type and shall be operated by a weatherproof cylinder type lock having not less than five pin or five disc combination with the key removable only when the switch is in the off position.

(2) If activation of the elevator is provided by a timing circuit that only allows the circuits to be initiated or unlocked for a sufficient amount of time to allow passengers to board the elevator and begin transit, a separate activation switch on the car is not required. The operating circuits shall automatically relock:

(a) If the elevator is not activated within its preset period of time;

(b) When any landing stop button is activated;

(c) When the preset timing period has expired and the car has completed transit to another landing or returns to the departure landing.

(3) Emergency stop switches shall be provided on or adjacent to the operating station.

- (a) Stop switches in the car shall:
  - (i) Be of a manually opened and manually closed type;
  - (ii) Have red handles or buttons and be conspicuously marked "STOP";
  - (iii) Open even if springs fail when springs are used.
- (b) Stop switch at other operating stations:
  - (i) May be of a momentary type;
  - (ii) Shall have red handles or buttons and be conspicuously marked "STOP";
  - (iii) Shall open even if springs fail when springs are used;
  - (iv) After initiation of stopping, the car shall not automatically restart. Run condition shall be manually initiated.
- (4) Design and installation of control and operating circuits shall meet the following:
  - (a) Control systems based upon the completion or maintenance of an electric circuit shall not be used for:
    - (i) Interrupting power and applying machine brakes at terminals;
    - (ii) Stopping elevators when an emergency stop switch is open or when any electrical protective device operates;
    - (iii) Stopping a machine when the safety applies.
  - (b) If springs are used to activate switches, contacts, or circuit breaking relays to stop the elevator at a terminal, the springs shall be of the restrained compression type.
- (5) Hand rope operation shall not be used.
- (6) Radio controls may be used in lieu of wiring for all car controls provided:
  - (a) The system is set up so that it is fail safe (if contact is lost, the unit will stop);
  - (b) In such installations, the "STOP" button in the car shall open the contact, and maintain an open condition, so that the car stops in the fail-safe mode as described in (a) of this subsection; and
  - (c) The controls are permanently mounted and conform to code.

NEW SECTION

- 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. galvanized elevator wire rope and 3/16 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.
- (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.); or 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.

#### NEW SECTION

**WAC 296-96-24166 Controllers.** All controllers shall be labeled and listed where required at the time of installation or alteration. In addition, controller covers shall be locked.

#### NEW SECTION

**WAC 296-96-24169 Traveling cables.** (1) All traveling cables shall conform to the edition of NFPA 70 in effect at the time of installation or major alteration.

(2) Where circuits through the traveling cable(s) exceed 30 volts, a means shall be provided to stop the power automatically if the traveling cable parts.

#### NEW SECTION

**WAC 296-96-24172 Electrical wiring.** (1) All wiring shall conform to the National Electrical Code (NEC) in effect at the time of installation or major alteration.

(2) If a driving machine is mounted on the elevator chassis, the electrical connections between the elevator and the power source must be able to stop power if a traveling cable parts.

(3) All electrical connections between the elevator and the stationary connections shall be insulated flexible conducts conforming to the applicable articles in NFPA 70 relating to elevators, dumbwaiters, escalators, moving walks, wheelchair lifts, and stairway chair lifts.

(4) An elevator mechanic employed by an elevator contractor may perform electrical work starting from the load side inside the controller.

#### NEW SECTION

**WAC 296-96-24175 Supporting structures.** All supporting structures shall meet the local building codes.

#### NEW SECTION

**WAC 296-96-24178 Additional requirements.** (1) All inclined private residence elevators shall be equipped with:

(a) A manual method of moving the elevator 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 a manual method.

(2) Machinery spaces shall be protected from weather and accidental contact. Machinery spaces shall be locked.

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

### **Subpart IX**

#### **Private Residence Inclined Conveyances for Transporting Only Property**

#### NEW SECTION

**WAC 296-96-24200 Scope.** The rules in this section are the minimum standard for all existing inclined private residence conveyances for transporting property for single family use in a private residence. The purpose of this section is to ensure that inclined private residence conveyances will be used only for transporting materials and

goods, not people, and that no person in proximity of the conveyance will be endangered by its operation or failure.

NEW SECTION

**WAC 296-96-24203 Definition.** "Inclined private residence conveyances for transporting property" means a device constructed and operated for transporting property from one elevation to another at an angle of inclination of 70 degrees or less from the horizontal. Essentially, it is a car or platform traveling on guides or guiding members in an inclined plane.

NEW SECTION

**WAC 296-96-24206 Existing conveyances.** Inclined private residence conveyances for transporting property 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 available, regardless of when the conveyance was permitted. Copies of previous rules adopted by the department are available upon request.

If the department determines that an inclined private residence conveyance for transporting property was installed without a permit and inspection, the conveyance will be required to comply with the current rules adopted by the department unless documentation determining the date the conveyance was installed (e.g., sales receipts, building permits, or other appropriate documentation) can be provided.

NEW SECTION

**WAC 296-96-24209 Alterations.** If the inclined private residence conveyance for transporting property is altered, only the component(s) that was altered shall comply with the applicable rules adopted by the department in effect at the time the conveyance was altered.

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

NEW SECTION

**WAC 296-96-24212 Plans.** (1) Before commencing alteration of any inclined private residence elevator for transporting property, the

owner shall submit complete plans and specifications to the department for approval.

(2) Plans and specifications covering the installation of an inclined private residence conveyance for transporting property shall be endorsed by a professional engineer before the department will approve the plans.

#### NEW SECTION

**WAC 296-96-24215 Minimum maintenance requirements.** Owners of inclined private residence elevators for transporting property are responsible for ensuring that:

- (1) Elevators and their parts are maintained in a safe condition;
- (2) All devices and safeguards required by these regulations are maintained in good working order.

The department recommends maintenance, examinations, and safety tests be performed and documented to the applicable sections of WAC 296-96-23601 through 296-96-23610.

#### NEW SECTION

**WAC 296-96-24218 Cars, landing gates and enclosures.** (1) Any landing enclosure shall have a railing at least 42 in. high to protect all landing platforms and those areas of a building used as landing platforms.

(2) Where gates are not provided at the entrance to the platform, a chain with a sign shall be provided to block the landing entrance. The sign shall state "Keep off landing until elevator has stopped at platform."

- (3) If gates are provided they shall be:
  - (a) Either a horizontally sliding type or a swing type; and
  - (b) Equipped with a latch that holds the gate closed and an electrical contact to prevent movement of the elevator when a gate is open.

#### NEW SECTION

**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. and with a maximum stroke of 1 1/2 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.

#### NEW SECTION

**WAC 296-96-24225 Machinery beams, sheaves, and supports.** (1) All machinery and sheaves shall be sufficiently secured and supported to prevent any part from becoming loose or displaced. Beams directly supporting machinery shall be made of steel, sound timber, or reinforced concrete.

(2) Beams and support loads shall be computed as follows:

(a) The total load on the beams shall be equal to the weight of all apparatus resting on the beams plus twice the maximum load suspended from the beams.

(b) The load resting on the beams shall include the complete weights of the driving machine, sheaves, controller, etc.

(c) The load suspended from the beams shall include the sum of the tensions in all ropes suspended from the beams.

(3) The elevator driving machine or sheaves shall not be fastened to the underside of the supporting beams at the top of the hoistway.

EXCEPTION: Cast iron in tension shall not be used for supporting members for idler and deflecting sheaves where they are hung beneath beams.

(4) The factor of safety for beams and supports shall be no less than:

(a) 5 For steel; or

(b) 6 For timber and reinforced concrete.

#### NEW SECTION

**WAC 296-96-24228 Rated load of platforms.** (1) The rated load of a platform shall not exceed 5,000 lbs.

(2) The rated load of the platform shall be no less than the load to be carried and shall not exceed 50 lbs./ft<sup>2</sup> of inside net platform area.

#### NEW SECTION

**WAC 296-96-24231 Rated speed.** The maximum rated speed of an inclined conveyance, measured along the incline, is 75 ft./min.



NEW SECTION

**WAC 296-96-24234 Frames and platforms.** (1) Inclined conveyance elevator frames and platforms shall:

(a) Be built of metal, a combination of metal and wood or other materials of equal strength;

(b) Have a safety factor of at least 5; and

(c) Be suitably prepared and/or protected from exposure to weather.

(2) Inclined conveyance chassis shall:

(a) Be built of metal, except for the guiding members;

(b) Have a safety factor of at least 5, based upon the conveyance's rated load; and

(c) Have the chassis guiding members retained and/or enclosed in guides so that the chassis cannot be derailed.

(3) Cast iron may not be used in the construction of the conveyance frame or chassis.

(4) A car shall have only one compartment.

NEW SECTION

**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. or above 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.

NEW SECTION

**WAC 296-96-24240 Capacity and data plates.** (1) The manufacturer 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. 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.

NEW SECTION

**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. 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. 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.

NEW SECTION

**WAC 296-96-24246 Counterweights.**

(1) Counterweights, where used, shall be in a guide or track.

(2) Counterweights shall not be of sufficient weight to cause undue slackening of any conveyance hoisting rope or chain during acceleration or retardation of the conveyance. Counterweight weight section(s) shall be mounted in structural or formed metal frames which are designed to retain weights securely in place.

EXCEPTION: Counterweights may be constructed of a single metal plate.

NEW SECTION

**WAC 296-96-24249 Safeties and governors.**

(1) All inclined private residence conveyances for transporting property shall have a slack cable safety device capable of stopping and sustaining a car carrying its rated load.

(2) Other types of approved safety devices may be used provided they have been approved by the department.

NEW SECTION

**WAC 296-96-24252 Testing of safeties.**

Safeties shall be tested before inclined private residence conveyances for transporting property are put into service. Safeties shall be tested while the conveyance is carrying its rated load.

NEW SECTION

**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.

(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.

NEW SECTION

**WAC 296-96-24258 Terminal stopping switches.** A hoistway shall be equipped with normal upper and lower terminal stopping switches that are activated by the conveyance chassis. These switches shall stop the conveyance at the normal top and bottom terminals of travel.

(1) Winding drum machines may use a slack cable switch as a bottom final terminal switch.

(2) Normal and final terminal stopping switches shall not control the same switches on the controller unless at least two separate and independent switches are used. At least two of these separate switches shall be closed in order to complete the motor and brake circuits for each direction of travel.

NEW SECTION

**WAC 296-96-24261 Activation and operation.** (1) If activation of the conveyance is by key switch, key pad or swipe card, the activation and operation shall conform to the requirements of (a) and (b) of this subsection. The department may approve alternative methods of equal security.

(a) The key or code shall be entered each time to move the conveyance.

(b) Key-operated switches shall be of the spring return type and shall be operated by a weatherproof cylinder type lock having not less than 5 pin or 5 disc combination with the key removable only when the switch is in the off position.

(2) If activation is provided by a timing circuit that only permits the circuits to be initiated or unlocked for a sufficient amount of time to allow the loading of materials, the operating circuits shall automatically relock:

(a) If the conveyance is not activated within its preset period of time;

(b) When any landing stop button is activated; or

(c) When the car has completed transit to another landing or returns to the department landing.

(3) Emergency stop switches shall be provided on or adjacent to the operating station. Stop switches:

(a) May be of a momentary type;

(b) Shall have red handles or buttons and be conspicuously marked "STOP"; and

(c) Shall open even if springs fail when springs are used.

(4) After initiation of stopping, the car may not automatically restart. Run condition shall be manually initiated.

(5) Design and installation of control and operating circuits shall meet the following:

(a) Control systems based upon the completion or maintenance of an electric circuit shall not be used for interrupting power and applying machine brakes at terminals, stopping elevators when an emergency stop switch is open or when any electrical protective device operates, or for stopping a machine when the safety applies.

(b) If springs are used to activate switches, contact, or circuit breaking relays to stop the elevator at a terminal, the springs shall be of the restrained compression type.

(6) Hand rope operation shall not be used.

NEW SECTION

**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. galvanized elevator wire rope and 3/16 in. aircraft cable.

(4) Factor of safety:

(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.); 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.

NEW SECTION

**WAC 296-96-24267 Controllers.** All controllers shall be labeled and listed. In addition, controller covers shall be locked.

NEW SECTION

**WAC 296-96-24270 Traveling cables.** (1) All traveling cables shall conform to the NEC in effect at the time of installation or major alteration.

(2) Where circuits through the traveling cable(s) exceed 30 volts, a means shall be provided to stop the power automatically if the traveling cables part.

NEW SECTION

**WAC 296-96-24273 Electrical requirements.** (1) All wiring shall conform to the NEC in effect at the time of installation or major alteration.

(2) If a driving machine is mounted on the conveyance chassis, the electrical connections between the conveyance and the power source shall be able to stop power if a traveling cable parts.

(3) All electrical connections between the conveyance chassis and the stationary connections shall be insulated flexible conductors conforming to the applicable articles of the NEC relating to elevators, dumbwaiters, escalators, moving walks, wheelchair lifts, and stairway chair lifts.

(4) An elevator mechanic employed by an elevator contractor may perform electrical work starting from the load side inside the controller.

NEW SECTION

**WAC 296-96-24276 Track supporting structures.** All supporting structures shall meet the local building codes.

NEW SECTION

**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 2.0 in. letters shall be conspicuously posted and permanently attached to the conveyance and at each landing.

### **Subpart X Material Hoists**

#### NEW SECTION

**WAC 296-96-24301 Applicable regulations.** All material hoist installations, maintenance, repair, and tests shall comply with the edition of ANSI/ASSE A10.5 Safety Requirements for Material Hoists under the edition to which they were installed. EXCEPTION: Lifts and hoists for material that are erected temporarily for use during construction work only and are designed in one of the following ways:

(1) Powered platforms used for and temporarily constructed in conjunction with exterior work on building facades or to erect scaffolding, not intended to move material from one landing to another; and

(2) Portable lifts for material only.

#### NEW SECTION

**WAC 296-96-24350 Inspection of jumps.** Material hoists that have been increased in height (jumped) shall be inspected before being allowed to run to the new landings.

### **Subpart XI Belt Manlifts**

NEW SECTION

**WAC 296-96-24401 Applicable requirements.** (1) Belt manlifts shall comply with the code under which the unit was installed.

(2) Where a unit was installed when no code was available (pre-1949), the unit shall, as a minimum, comply with the oldest adopted standard (i.e., ASME A90.1-2003).

(3) Appendix I and II records shall be kept in a secure location within the building and be readily accessible to maintenance personnel and inspectors.

NEW SECTION

**WAC 296-96-24416 Landings.** (1) Vertical clearance between the floor or mounting platform and the lower edge of the conical guard above it shall be at least 7 ft., 6 in. When this clearance is not possible, access to the manlift shall be prohibited and the space where the runway passes through the platform floor shall be enclosed.

(2) Floor space adjacent to floor openings shall be kept clear and free of obstructions at all times.

(3) Adequate lighting shall be provided at each floor landing whenever the lift is in use.

Note: For purposes of this section "adequate lighting" means 5 foot-candles.

(4) The landing surfaces at all entrances and exits shall provide safe footing and shall have a coefficient of friction of not less than 0.5 to help ensure safe footing.

(5) Emergency landings shall be provided so that the maximum distance a person travels on the emergency ladder between an emergency landing and a floor landing is 25 ft.

Emergency landings shall:

(a) Be accessible from both runs of the lift;

(b) Give access to the emergency ladder; and

(c) Be completely enclosed with a standard railing and toeboard.

NEW SECTION

**WAC 296-96-24419 Landing guards and cones.** (1) On the ascending side of the lift, all landings shall have a beveled guard or cone that meets the following requirements:

(a) Where possible, a cone shall make an angle with the horizontal of at least 45 degrees. A cone angle of 60 degrees or more shall be used where ceiling heights permit.

(b) Where possible, the guard or cone shall extend at least 42 in. outward from any belt handhold. A guard or cone shall not extend beyond the upper surface of the floor above.

(c) A cone shall be built of sheet steel (at least No. 18 U.S. gauge) or any material of equivalent strength or stiffness. The lower edge of a cone shall be rolled to a minimum diameter of 1/2 in. The



interior of a cone shall be smooth with no protruding rivets, bolts, or screws.

(2) All obstructions shall be guarded just like floor openings with the same minimum distances observed.

#### NEW SECTION

**WAC 296-96-24422 Guarding of entrances and exits.** (1) All man-lift floor or landing entrances and exits shall be guarded by either a maze (staggered railing) or a handrail equipped with self-closing gates.

(2) When a maze is used:

(a) Maze or staggered openings shall not allow direct passage between a platform enclosure and the outer floor space;

(b) Rails shall be located between 24 and 48 in. from the edge of the opening as measured at right angles to the face of the belt; and

(c) At openings, the intersection of the top rail and the end post shall form a bend or standard long sweep "ell."

(3) When a handrail is used:

(a) Rails shall be standard guardrails; and

(b) Gates shall have rounded corners, open outward, and be self-closing.

(4) Unless prevented by building design, all entrances and exits at all landings shall be in the same relative location.

#### NEW SECTION

**WAC 296-96-24425 Guarding of floor openings.** Except on the entrance or exit side, floor openings at each landing shall be guarded.

(1) The guards shall be constructed by one of the following methods:

(a) A standard railing and toeboard;

(b) Panels of wire mesh (not less than No. 10 U.S. gauge);

(c) Panels of expanded metal (not less than No. 13 U.S. gauge);

(d) Panels of sheet metal (not less than No. 13 U.S. gauge); or

(e) Metal on a frame of either angle iron (at least 1 1/4 by 1 1/8 in.) or 1 1/4 in. iron pipe.

(2) When a belt manlift is installed in a stairwell, a standard guardrail shall be placed between the floor openings and the stairway.

(3) Rails or guards shall be:

(a) At least 42 in. high on the up-running side and 66 in. high on the down-running side; and

(b) Be located not more than 1.0 ft. from the edge of the floor opening.

(4) If a guardrail is used, the section of the guard above the rail may be constructed:

(a) According to ASME A90.1; or

(b) Using either vertical or horizontal bars capable of rejecting a 6 in. diameter ball.

NEW SECTION

**WAC 296-96-24428 Guarding of floor landings.** Expanded metal, sheet metal or wooden guards shall be installed on each floor landing to prevent people from placing their hands in areas where step-rollers operate. These guards shall be installed on each exposed side of the lift and extend from the floor to a height of 84 in.

NEW SECTION

**WAC 296-96-24431 Bottom landings.** (1) Bottom landing clear areas:

(a) Where possible, the clear area of a bottom landing shall be at least the size of the area enclosed by guardrails on the floors above;

(b) A clear area shall be free of stairs and ladders; and

(c) If a wall on the bottom landing is located in front of the down-running side of the belt, it shall be installed at least 48 in. away from the belt face.

(2) The lowest landing serviced by the lift shall support the lower (boot) pulley installation.

(3) A mounting platform shall be installed on the lowest landing unless the landing floor is at or above the point at which the upper surface of the belt steps assume or leave a horizontal position.

(4) If a mounting platform is installed, it shall be located in front of or to one side of the up/down run.

NEW SECTION

**WAC 296-96-24434 Top clearances.** (1) When the center of the head pulley is more than 72 in. above the top landing, an emergency landing and ladder shall be installed.

(2) The location of the emergency landing shall be 24 in. below the center of the head pulley.

NEW SECTION

**WAC 296-96-24437 Emergency exit ladders.** Emergency exit ladders shall:

(1) Be a fixed metal type;

(2) Be accessible from either the "up" or "down" path of the lift;

(3) Be installed when the vertical distance between the landings exceeds 20 ft.; and

(4) Be constructed to comply with current general safety standards except enclosed cages need not be built;

(5) Provide access to an emergency exit;

(6) Be located in a position so that in an emergency a person can safely transfer from the manlift to the ladder.

Note: Transfer is considered safe when a person can maintain 3 points of contact while making the transfer.

#### NEW SECTION

**WAC 296-96-24440 Lighting.** (1) When a lift is in operation, both runs shall be illuminated at all points with an intensity of at least 1.0 foot-candle.

(2) Lighting control in runways shall be:

(a) Circuits tied permanently into the building circuits (no switches);

(b) Near the starting switch that controls the lift motor; or

(c) Separate switches located on every landing and with each switch having the capability of turning on all lights throughout the entire runway.

#### NEW SECTION

**WAC 296-96-24445 Drive machines.** (1) Belt manlifts shall be driven either by directly connected machines or by multiple "V" belts.

(2) Cast iron gears shall not be used.

(3) Brakes:

(a) On direct connected machines, the brake shall be mechanically applied to the motor shaft and released electronically.

(b) On "V" belt driven machines, the brake shall be mechanically applied to the input shaft and released electronically.

(c) All brakes shall be capable of stopping and holding the lift while carrying its rated capacity.

(4) Belts:

(a) Belts shall not have more than one splice per belt.

(b) There shall not be more than 1 in. of space between the opposing ends of the belt.

(c) A belt manlift that has evidence of severe belt damage shall be removed from service immediately. Belts with severe belt damage shall not be repaired and/or returned to service. "Severe belt damage" means that the protective outer cover of a belt becomes cut, cracked or separated exposing damaged inner fabric, and such damage extends across the full width of the belt, spans between adjacent bolt holes, or damage goes through the entire thickness of the inner fabric. A torn belt is also considered severe.

EXCEPTION: A lap splice that has become cracked or damaged may be converted to a butt splice and returned to service, provided that the damaged area on the splice is completely removed.

(d) The conversion of a lap splice to a butt splice does not constitute a repair.

(e) A belt that has evidence of superficial belt cover damage while in use on a manlift is not required to be replaced. "Superficial belt cover damage" means that the protective outer cover of a belt becomes scratched, cut or cracked exposing the inner fabric. Such damage shall not be continuous across the full width of the belt.

(5) Belts fastening:

(a) Shall be fastened either by a lap splice or a butt splice with a strap on the belt side opposite the pulley.

(b) For lapped splices on manlifts with travel distances not exceeding 100 ft., the overlap of the belt at the splice shall be at least 36 in.; or

(c) For lapped splices exceeding 100 ft., the overlap at the splice shall be at least 48 in.

(d) For butt splices on manlifts with travel distances not exceeding 100 ft., the strap shall extend at least 36 in. on one side of the butt; or

(e) For butt splices on manlifts exceeding 100 ft., the strap shall extend at least 48 in. on one side of the butt.

(f) For 12 in. belts, the joint shall be fastened with a minimum of 20 special elevator bolts with minimum diameters of 1/4 in. To effectively cover the belt joint area, these bolts shall be arranged symmetrically in 5 rows.

(g) For a 14 in. belt, the minimum number of bolts is 23.

(h) For a 16 in. belt, the minimum number of bolts is 27.

(6) All installations shall use machines designed and constructed to hold the driving pulley when there is shaft failure or overspeed.

#### NEW SECTION

**WAC 296-96-24448 Operating speed.** The maximum belt speed of a belt manlift is 80 ft./min. No belt manlift shall be installed that exceeds this maximum speed limit, and all belt manlifts in a given location should run at approximately the same speed.

#### NEW SECTION

**WAC 296-96-24451 Step requirements.** (1) Measured from the belt to the edge of the step, the minimum depth of a step is 12 in. and the maximum depth is 14 in.

(2) Step width shall not be less than the width of the belt to which it is attached.

(3) Measured from the upper surface of one step to the upper surface of the next step above, the distance between steps shall be at least 16 ft. and the steps shall be equally spaced along the belt.

(4) A step shall be attached to the belt so its surface approximates a right angle with the face of the belt enabling the step to travel in basically a horizontal position with the "up" and "down" path of the belt.

(5) The working (upper) surface of a step shall be made of either a material having nonslip characteristics (possessing a coefficient of friction of not less than 0.5) or be completely covered with a securely attached nonslip tread.

(6) Step supports (frames) and guides shall be sufficiently strong to prevent:

(a) The disengagement of any step roller;

(b) Any appreciable misalignment; or

(c) Any visible deformation of the step or its support.

(7) Steps shall have corresponding handholds.

(8) If a step is removed for any reason, the handholds immediately above and below it shall be removed before the lift resumes operation.

#### NEW SECTION

**WAC 296-96-24454 Handholds.** (1) Handholds attached to the belt shall be provided and installed so that they are not less than 48 in. nor more than 56 in. above the step tread. These handholds shall be available on both the "up" and "down" run of the belt.

(2) All handhold grab surfaces shall be at least 4 1/2 in. in width. Fastenings shall not come within 1 in. of the belt edge.

(3) All handholds shall be capable of withstanding, without damage, a 300 lb. load applied parallel to the belt run.

(4) All handholds shall have corresponding steps. When a handhold is removed for any reason, the corresponding step and handhold for the opposite direction of travel shall also be removed before the lift resumes operation.

#### NEW SECTION

**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 stop 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 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.

(4) Electric stop devices shall meet the following requirements:

(a) All electric switches that directly open the main motor circuit shall be multiple type switches;

(b) Photoelectric devices shall be designed and installed so that failure of the light source, the light sensitive element or any vacuum tube used in the circuit will result in shutting off the power to the driving motor;

(c) In areas where flammable vapors or dust may be present, all electrical installations shall be in accordance with the NEC requirements for those installations; and

(d) All controller contacts carrying main motor current shall be copper to carbon types unless the circuit is simultaneously broken at two or more points or the contacts are immersed in oil.

#### NEW SECTION

**WAC 296-96-24460 Emergency stop devices.** All belt manlifts shall have emergency stop devices that:

(1) Are located within easy reach of the "up" and "down" run of the belt;

(2) Stop power to the lift and apply the lift brake when pulled in the direction of travel;

(3) Have a treadle switch (manual reset type) that is located below the lowest landing on the belt's "down" side and, if a person fails to get off at the lowest landing, stops the lift and ejects the person from the step as it approaches the boot pulley;

(4) Are made of cotton rope with a wire center, manila or sisal rope, or metal pipe or tubing. Wire rope cannot be used, unless covered with marlin. Rope stops shall be at least 3/8 in. in diameter; and

(5) An emergency stop may be used for normal stopping and starting if the lift does not run continuously.

#### NEW SECTION

**WAC 296-96-24466 Warning signs.** (1) Instructional signs explaining how to use the belt lift shall be:

(a) Conspicuously posted on each landing or stenciled on the belt;

(b) Printed in an easily read style with letters at least 1 in. in height;

(c) Printed in a color that clearly contrasts with the background surface (for example, white or yellow on black or black on white or gray); and

(d) Examples of instructional signs are:

- "Face the belt";
- "Use the handhold";
- "To stop - Pull rope."

(2) Warning signs and/or lights shall include an illuminated sign or red warning light announcing the top floor and shall be within easy view of an ascending passenger.

(a) If a sign, it shall be located no more than 2 ft. above the top terminal landing and printed in block letters (at least 2 in. in height) displaying the words, "Top floor - Get off."

(b) If a red light, it shall have at least a 40-watt rating and be located immediately below the upper terminal landing where it will shine in the belt passenger's face.

(3) There shall be conspicuous signs on each landing that read, "Employees only - Visitors keep off," printed in block letters at least 2 in. in height in a color that sharply contrasts with the background.

(4) A sign or red light shall be conspicuously posted above the bottom landing announcing its approach. These shall be:

(a) If a sign, printed in block letters at least 2 in. in height that sharply contrast with the background and reads, "Bottom floor - Get off."

(b) If a light, rated at least 40 watts.

(5) An electronic warning buzzer shall be installed 5 ft. above the bottom landing on the down side of the belt to warn belt riders of the approaching landing. This warning buzzer shall be automatically activated by load weight on a step.

#### NEW SECTION

**WAC 296-96-24470 Restricted use of manlifts.** (1) No freight or packaged goods may be carried on any manlift;

(2) No pipe, lumber, or other construction materials may be handled on any manlift; and

(3) No tools except those which will fit entirely within a pocket of ordinary working clothes may be carried on any manlift, except as follows:

(a) Tools may be carried in a canvas bag not larger than 11 in. by 13 in.;

(b) The bag shall have a leather bottom; and

(c) The bag shall have loops or handles to be carried in the passenger's hand while riding the manlift. Shoulder straps are prohibited.

#### NEW SECTION

**WAC 296-96-24478 Inspection requirements.** (1) All manlifts shall be inspected by a qualified person, designated by the lift's owner, at least once every 30 days.

(2) The inspection shall cover, but is not limited to, the following items:

- Belt and belt tension;
- Bottom (boot) and pulley;
- Brake;
- Clearance;
- Drive pulley;
- Driving mechanism;
- Electrical switches;
- Guardrails;
- Handholds and fastenings;
- Lubrication;
- Motor;
- Pulley supports;
- Rails, rail supports and fastenings;

- Rollers and slides;
- Signal equipment;
- Steps and fastenings;
- Warning signs and lights.

(3) A written record shall be kept of results of each inspection, and shall be made available to all inspectors. This information shall be recorded under the monthly portion of the test log required by Appendix A of ASME A90.1-1997.

(4) For purposes of this section "adequate lighting" means 5 foot-candles.

#### NEW SECTION

**WAC 296-96-24480 Five-year test requirements.** A five-year test of the belt manlifts shall be conducted, and the test shall be administered under the following conditions:

(1) Qualified people will conduct the test. A qualified person is either:

(a) An elevator mechanic licensed in the appropriate category of the conveyance being tested;

(b) The representative of a firm that manufactured the particular belt manlift who holds a current temporary mechanic's license in this state; or

(c) The representative of a firm that manufactured the particular belt manlift who is working under the direct supervision of an elevator mechanic licensed in the appropriate category of the conveyance being tested.

(2) The up capacity of the belt manlift shall be tested with 200 lbs. on each horizontal step. During the up-run portion of the test the belt manlift shall not show appreciable slip of the belt when standing or running at rated speed.

(3) The down capacity of the belt manlift shall be tested with 200 lbs. on each horizontal step. During the down-run portion of the test the belt manlift shall not show appreciable slip of the belt when standing or running at the rated speed. The brake shall stop and hold the belt with test load within a maximum of 24 in. of travel.

(4) After the five-year test has been performed a tag indicating the date of the test and name of the company performing the test shall be attached in a visible area of the drive motor machine. The tag shall have all applicable ASME A90.1, 8.1 test descriptions and code references.

**Subpart XII  
Special Purpose Elevators  
(Formerly Known as Electric Manlifts)**



NEW SECTION

**WAC 296-96-24500 Scope.** (1) These requirements apply to special purpose personnel elevators 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 edition of ASME A17.1 or A17.1/B44 that was in effect at the time.

NEW SECTION

**WAC 296-96-24516 Maintenance requirements.** (1) Examinations, in compliance with WAC 296-96-23605, are to be performed and documented in the maintenance and testing records.

Test tag(s) shall be attached to a wall inside the cab (car enclosure).

(2) Owners of electric manlifts are responsible for ensuring that:

(a) Elevators and their parts are maintained in a safe condition;

(b) All devices and safeguards required by these regulations are maintained in good working order; and

(c) Maintenance, examinations, and safety tests be performed and documented to the applicable sections of WAC 296-96-24519 through 296-96-24560.

NEW SECTION

**WAC 296-96-24519 Hoistway and landing construction.** (1) A hoistway shall be fully enclosed, or enclosed on all landings to a height of 72 in. above the landing floor or 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 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:

(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.

NEW SECTION

**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 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 2 in. wide and 1/2 in. thick, nominal size.

(c) Solid material gates shall be constructed of at least 1/8 in. reinforced sheet steel or 1/2 in. plywood.

(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 1 in. above the landing floor to at least 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.

NEW SECTION

**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 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.

(2) If constructed of perforated materials, all openings shall be capable of rejecting at least a 1 in. diameter ball.

(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 30 in. on each side (6.25 ft<sup>2</sup>).

(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. or heavier plywood.

(c) If made of wire screen or metal with openings shall reject a 1/2 in. diameter ball.

(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."

NEW SECTION

**WAC 296-96-24528 Car doors and gates.** All elevators 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.

(1) Car doors shall be:

(a) Constructed of solid or perforated material capable of resisting a 75 lb. thrust without deflecting 1/4 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.

(2) Interlocks or a combination consisting of mechanical locks and electric contacts shall be provided on car gates on elevators in unenclosed hoistways unless a safe means of self-evacuation is provided. Such means shall be approved by the department.

NEW SECTION

**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. mild steel bolts with lock nuts.

(3) Sectional round counterweights shall be fastened with a center bolt at least 3/4 in. in diameter and secured with a lock nut.

(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.

NEW SECTION

**WAC 296-96-24534 Guide rails.** Each elevator shall be equipped with at least 2 guide rails. Guide rails shall:

(1) Extend at least 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. and not vary in thickness by more than 3/16 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. total deflection when the car safety is applied.

#### NEW SECTION

**WAC 296-96-24537 Suspension means.** There shall be at least 2 hoisting ropes. Each rope shall be:

(1) Made of a good grade of elevator traction wire rope;

(2) At least 3/8 in. in diameter and possessing a safety factor of 5;

(3) Fastened by babbitted tapered elevator sockets or other acceptable methods. If cable clamps are used, a minimum of 3 fist grip or equivalent clamps shall be provided. U-shaped clamps shall not be acceptable.

#### NEW SECTION

**WAC 296-96-24540 Habitable space below elevator.** There shall not be habitable space below an elevator hoistway or counterweight shaft unless the floor above the space can withstand an impact 125 percent greater than the impact generated by a free falling car with rated load or counterweight falling from the full height of the hoistway.

#### NEW SECTION

**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.

(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 special purpose elevators shall be equipped with an over-speed governor that shall not exceed 175 ft./min. and shall deenergize the brake control and motor drive circuits simultaneously when the car safety mechanism is activated.

(4) Winding drum type machines shall have a manual-reset slack rope device that interrupts the drive motor and brake circuits.

(5) Separate safety tags shall be used to distinguish the no-load annual safety test and the five-year full load test.

NEW SECTION

**WAC 296-96-24547 Drive machine brakes.** All elevators shall be equipped with brakes that engage mechanically and release electrically.

(1) Brakes shall be located on the final drive of all elevator machines;

(2) The brake activating circuit shall be designed so that interruption of power by the slack cable switch, control switch, and limit switches disconnect power to the brake;

(3) The brakes shall activate under short circuit, phase failure, or reverse phase conditions.

NEW SECTION

**WAC 296-96-24550 Car controls.** (1) Car controls shall be permitted to be automatic push button, constant pressure push button or momentary push button types. Hand rope and car switch controls shall not be used.

(2) If a car is not equipped with constant pressure push button controls, then it shall be equipped with a manually operated emergency stop switch that is clearly marked "emergency stop."

(3) Terminal limiting devices shall operate independently of car controls and shall automatically stop the car at the top and bottom terminal landings.

NEW SECTION

**WAC 296-96-24553 Drive machines.** (1) Elevator machines 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. 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, elevator 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 elevator equipment shall be provided.

(8) The elevator machinery shall be protected from the weather.

(9) All sheaves shall be appropriately guarded per the requirements adopted according to chapter 49.17 RCW.

#### NEW SECTION

**WAC 296-96-24557 Buffers.** (1) All elevator cars shall be equipped with adequate car buffers.

(2) All elevators using counterweights shall be equipped with adequate counterweight buffers.

#### NEW SECTION

**WAC 296-96-24560 Additional applicable requirements.** Car speeds shall not exceed 125 ft./min.

### **Subpart XIII Hand Elevators (Previously Called Hand-Powered Manlifts)**

#### NEW SECTION

**WAC 296-96-24600 Scope.** This section covers elevators that have the capacity of 1 person and are installed in a facility prior to January 1, 1999, in which agricultural products are stored, food products are processed, goods are manufactured, energy is generated, or similar industrial or agricultural processes are performed.

#### NEW SECTION

**WAC 296-96-24611 Maintenance and test requirements.** (1) Maintenance and tests shall comply with the applicable requirements found in ASME A17.1/CSA B44, Section 8.6.

(a) Test tag(s) shall be attached to the inside of the car.

(b) Hand elevators with wooden rails shall be tested with no load annually.

(2) Qualified people shall conduct the test. A qualified person is either:

(a) An elevator mechanic licensed in the appropriate category for the conveyance being tested;

(b) The representative of a firm that manufactured the particular conveyance and who holds a current temporary mechanic's license in this state; or

(c) The representative of a firm that manufactured the particular conveyance who is working under the direct supervision of an elevator mechanic licensed in the appropriate category for the conveyance being tested.

(3) Examinations, in compliance with WAC 296-96-23605, are to be performed and documented in the maintenance and testing records.

#### NEW SECTION

**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 78 in. in height and in no case may the width exceed the corresponding car dimensions.

(3) All entrances shall be provided with an approved maze or with a hoistway gate which shall:

(a) Be at least 36 in. in height;

(b) Extend downward to within 1 in. of the landing 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 4 in. of the edge of the landing 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.

#### NEW SECTION

**WAC 296-96-24630 Habitable space beneath the car and counterweight.** There shall not be habitable space below an elevator hoistway or counterweight shaft unless the floor above the space can withstand the impact of a freely falling car with rated load or counterweight.

NEW SECTION

**WAC 296-96-24635 Guide rails.** (1) There shall be a minimum of 2 opposing guide rails extending to a point 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 exceed 1/2 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. vertical grain fir or equivalent and shall not vary more than 3/16 in. in thickness on the sides which the brakes contact. All joints shall be kept smooth and even.

NEW SECTION

**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 8 in. above the top landing when the counterweight buffer spring is fully compressed.

NEW SECTION

**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 30 in. on either side (6.25 ft<sup>2</sup>);

(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 36 in. nor more than 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 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 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 con-



struction, 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. or heavier plywood. If made of wire screen or metal, the openings shall reject a 1/2 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.

(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 4 in. long x 3 in. deep shall be provided and firmly attached to the car structure.

(10) A fire extinguisher in proper working condition shall be available in the car.

#### NEW SECTION

**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. in diameter fastened with lock washers and double nuts or other approved means;

(b) One 3/4 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.

(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 counter-

weight 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 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.

#### NEW SECTION

**WAC 296-96-24655 Sheaves and supporting members.** (1) The minimum sheave diameter shall be 40 times the diameter of the rope used. For example, a 3/8 in. rope requires a 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.

#### NEW SECTION

**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. in diameter.

(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) of this section.

#### NEW SECTION

**WAC 296-96-24665 Operating ropes.** The operating rope shall be of soft hemp, nylon or cotton at least 3/4 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.

NEW SECTION

**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.

(b) An "IMPAIRED CLEARANCE" sign shall be posted at the bottom of a ladder when the face of the ladder is less than 30 in. from any structure.

(2) The minimum clearance between a car side and the hoistway enclosure is 1 in.

(3) The clearance between a car platform and a landing sill shall be at least 1/2 in. but not more than 1 1/2 in.

**Subpart XIV  
Casket Lifts**

Note: As a minimum, all such lifts currently installed shall comply with this section. These conveyances are intended to be used only in mortuaries where moving of caskets is necessary. New casket lifts shall comply with either ASME A17.1/CSA B44 Part 7 or with this chapter, Part C1.

NEW SECTION

**WAC 296-96-24700 Scope.** The rules in this section apply to existing hoisting and lowering mechanisms equipped with cars that:

(1) Move within guides in a substantially vertical direction;

(2) Have a maximum net inside area of 28 ft<sup>2</sup>;

(3) Have a maximum total internal height of 48 in. and a maximum total internal width of 36.5 in.; and

(4) Utilize a series of rollers as a platform to exclusively carry caskets;

(5) Are provided with a hoistway enclosure, and related construction that are in substantial compliance with the building code.

NEW SECTION

**WAC 296-96-24703 Minimum maintenance requirements.** Owners of casket lifts are responsible for ensuring that:

- (1) The lift and their parts are maintained in a safe condition; and
- (2) All devices and safeguards required by these regulations are maintained in good working order.

NEW SECTION

**WAC 296-96-24706 Machine rooms and machinery space.** (1) Machines and control equipment shall be located:

(a) Inside a hoistway enclosure, at the top or bottom, without enclosures and platforms; or

(b) Outside a hoistway if enclosed with a noncombustible material to a height of at least 72 in.

(2) Machines and control equipment located outside the hoistway shall be enclosed in noncombustible material not less than 72 in. high and have a self-closing and locking door. Control equipment located outside the hoistway shall be enclosed in a metal cabinet equipped with a panel door capable of being locked in the closed position to prevent unauthorized access.

(3) Permanent electric lighting shall be provided in all machine rooms and machinery spaces.

NEW SECTION

**WAC 296-96-24709 Equipment in machine rooms/spaces.** Only machinery and equipment required for the operation of the lift is permitted in the lift machine room.

NEW SECTION

**WAC 296-96-24712 Electrical wiring, pipes and ducts in hoistways and machine rooms.** (1) Only electrical wiring raceways and cables directly related to a lift's operation may be installed inside the hoistway.

(2) Pipes or ducts that convey gases, vapors, or liquids and are not used in connection with the lift shall not be installed in any hoistway, machine room, or machinery space.

(3) Machinery and sheave beams, supports, and foundations shall be designed to support the loads imposed on equipment.

NEW SECTION

**WAC 296-96-24715 Pits.** A pit is not required in a casket lift hoistway.

NEW SECTION

**WAC 296-96-24718 Hoistway door openings.** (1) The width and height of door openings shall not exceed the width and height of the car by more than 1 in. in each dimension; except one door opening may be of sufficient size to permit installing and removing the car, but shall not be more than 57 in. in height.

(2) The bottom of the door opening shall be not less than 24 in. above the floor.

NEW SECTION

**WAC 296-96-24721 Hoistway door installation.** Hoistway doors shall be hung and guided in such a manner that the doors will not be displaced from the guides or tracks when in normal service nor when the doors are subjected to a constant horizontal force of 250 lbs. applied at right angles to and approximately at the center of the door or to the center of each door section where multisection doors are used.

NEW SECTION

**WAC 296-96-24724 Hoistway door clearances.** Hoistway doors shall be located so that the distance from the hoistway face of the doors to the landing sill shall not be more than 2.5 in.

NEW SECTION

**WAC 296-96-24727 Hoistway door locking devices.** All hoistway doors shall be equipped with a combination mechanical lock and electric contact or door interlock.

NEW SECTION

**WAC 296-96-24730 Protection of space beneath hoistway.** Where the space below the hoistway is used for a passageway or is occupied by people, or if unoccupied is not secured against unauthorized access, the cars and counterweights shall be equipped with safeties which shall be operated as a result of the breaking of the suspension means. Safeties may be of the inertia type without governors.

NEW SECTION

**WAC 296-96-24733 Car doors and gates.** There shall not be more than two entrances to the car.

(1) Each entrance shall be provided with a car door or gate which when in a fully closed position shall protect the full width and height of the car entrance opening.

(2) Collapsible type gates, when in a fully closed position, shall reject a 4.5 in. diameter ball.

NEW SECTION

**WAC 296-96-24736 Car enclosure.** (1) Lift platforms shall be permanently enclosed on all sides and the top.

(2) The enclosure shall be securely fastened to the platform and so supported that it cannot loosen or become displaced in ordinary service.

(3) The enclosure walls shall be of sufficient strength and designed and supported so that when subjected to a pressure of 75 lbs. applied horizontally at any point on the walls of the enclosure, the deflection will not reduce the running clearance to exceed 1 in.

(4) The top of the car enclosure shall be designed and installed so as to be capable of sustaining a load of 300 lbs. on any square area 24 in. on a side and 100 lbs. applied at any point. Simultaneous application of these loads is not required.

NEW SECTION

**WAC 296-96-24739 Construction of car frames and platforms.** (1) Every lift suspended by wire ropes shall have a car frame consisting of a crosshead, uprights (stiles) and a plank located approximately at the middle of the car platform and in no case farther from the middle than 1/8 of the distance from the front of the platform.

(2) Car frames shall be guided on each guide rail by upper and lower guiding members attached to the frame.

(3) Car frames and outside members of the platform shall be made of steel.

NEW SECTION

**WAC 296-96-24742 Connecting car frames to platforms.** Connections between members of the car frames and platform shall be riveted, bolted, or welded and shall meet the following specifications:

(1) Where used through sloping flanges of structural members bolt heads shall be of the tipped head type or shall be fitted with beveled washers.

(2) Nuts used on sloping flanges of structure members shall seat on beveled washers.

(3) Welding of parts upon which safe operation depends shall be done in accordance with the appropriate standards established by the American Welding Society.

NEW SECTION

**WAC 296-96-24745 Capacity.** (1) Driving machines, car and counterweight suspension mechanisms, and overhead beams and supports shall be able to sustain a car with a structure load capacity based upon the manufacturer's design criteria.

(2) A metal plate which gives the rated load in letters and figures not less than 0.25 in. high stamped, etched or raised on the surface of the plate shall be fastened in a conspicuous place in the car.

NEW SECTION

**WAC 296-96-24748 Driving machines.** Only drum, traction or plunger type driving machines may be used.

NEW SECTION

**WAC 296-96-24751 Material and grooving for sheaves and drums.** Material and grooving for sheaves and drums shall be of metal finished grooves and have a pitch diameter not less than 40 times the diameter of the rope.

NEW SECTION

**WAC 296-96-24754 Brakes.** Lift driving machines shall be equipped with a friction brake applied by a spring or springs and released electrically. The brake shall be designed to have a capacity sufficient to hold the car at rest with its rated load.

NEW SECTION

**WAC 296-96-24757 Terminal stopping devices.** (1) Upper and lower normal stopping devices shall be provided at the top and bottom of the hoistway.

(2) Final terminal stopping devices shall be provided and arranged to remove electric power to the lift driving machine motor and

brake after the car has passed a terminal landing. Under normal operating conditions the final terminal stopping device shall not function when the car is stopped by the normal terminal stopping device.

(3) Lifts having traction machines shall have final terminal stopping switches located in the hoistway and operated by cams attached to the car.

(4) Lifts having winding drum machines shall have terminal stopping switches located on and operated by the driving machine, which shall not be driven by chain, rope or belt. Also, stopping switches shall be installed in the hoistway and operated by cams attached to the car or counterweights.

(5) Lifts having winding drum machines shall have a slack rope device with an electric switch of the enclosed manually reset type which will cause the electric power to be removed from the driving machine motor and brake if the hoisting ropes become slack.

#### NEW SECTION

**WAC 296-96-24760 Suspension means.** (1) Lifts and counterweights shall be suspended by steel wire ropes. Only iron (low carbon steel) or steel wire ropes with fiber cores, having the commercial classification of "elevator wire rope" may be used for the suspension of lifts and for the suspension of counterweights.

(2) The minimum number of hoisting ropes is:

(a) Three .5 in. ropes for traction elevators; and

(b) Two .5 in. ropes for drum type elevators.

(3) Fastenings shall be by individual tapered babbitted rope sockets or by other department-approved types.

(4) The rope sockets shall be of a type which will develop at least 80 percent of the breaking strength of the strongest rope to be used in such fastenings. U-bolt type rope clips (clamps) shall not be used for load line fastenings.

#### NEW SECTION

**WAC 296-96-24765 Hydraulic casket lifts.** (1) All hydraulic lifts shall be a plunger type with the plunger securely attached to the car platform.

(2) Plungers composed of more than one section shall have the joints designed and constructed to carry in tension the weight of all plunger sections below the joints.

(3) Plungers shall be provided with solid metal stops to prevent the plunger from traveling beyond the limits of the cylinder. Stops shall be designed and constructed so as to stop the plunger from maximum speed in the "up" direction under full pressure without damage to the hydraulic system.

(4) Any leaking hydraulic oil shall be collected.



NEW SECTION

**WAC 296-96-24770 Valves, supply piping and fittings.** (1) Valves, piping and fittings shall not be subjected to working pressures that exceed manufacturer recommendations.

(2) Pipes, especially those that may vibrate, shall be sufficiently supported at each joint and fitting so undue stress is eliminated.

(3) A shut-off valve shall be installed in the pit.

(4) Each pump shall be equipped with a relief valve and all relief valves shall be:

(a) Located between the pump and check valve in a bypass connection;

(b) A type that cannot be shut off from the hydraulic system; and

(c) Preset to open at a pressure not greater than 125 percent of the working pressure at the pump.

EXCEPTION: Relief valves are not required for centrifugal pumps driven by an induction motor when the shutoff or maximum pressure that the pump develops is no more than 135 percent of the working pressure at the pump.

(5) A check valve shall be installed that will hold a car and its rated load at any point whenever a pump stops or pump operating pressure drops below the required minimum.

NEW SECTION

**WAC 296-96-24775 Stopping devices.** Normal stopping devices operated by cams attached to the car shall be installed at the top and bottom of the hoistway. Final terminal stopping devices and anticreep leveling devices are not required.

NEW SECTION

**WAC 296-96-24780 Operating devices.** Only constant pressure or automatic type operating devices located outside the hoistway may be used.

REPEALER

The following sections of the Washington Administrative Code are repealed:

- WAC 296-96-01012 What are the permit fees for alterations to conveyances, material lifts, and hoists and how are they calculated?
- WAC 296-96-01050 How do I get a supplemental inspection?
- WAC 296-96-02401 ASME A17.1-8.7.1 Alteration general requirements.
- WAC 296-96-02411 ASME A17.1-8.7.2.13 Door reopening devices.
- WAC 296-96-02420 What are the requirements for temporary construction operating permits?
- WAC 296-96-02450 Can pipes and ducts be installed above a machine room?
- WAC 296-96-02451 When a control space is used in lieu of a machine room.
- WAC 296-96-02455 What is the minimum working space required in machine rooms/control rooms?
- WAC 296-96-02466 ASME A17.1-8.9 Code data plate location and material.
- WAC 296-96-02475 What are the requirements for sprinklers in hoistways and machine rooms?
- WAC 296-96-02480 How does the department enforce ASME requirements for sprinklers, smoke detectors, and heat detectors in hoistways and machine rooms?
- WAC 296-96-02485 What is required for emergency escape hatches?
- WAC 296-96-02486 ASME A17.1-5.7.10.5 Special purpose elevator car doors or gates.
- WAC 296-96-02495 Are self-leveling devices required?
- WAC 296-96-02500 Is a door reopening device required on automatic-closing car doors?
- WAC 296-96-02505 What is the minimum acceptable initial transfer time for an elevator door?
- WAC 296-96-02510 What are the minimum cab size and other applicable requirements for car interiors?
- WAC 296-96-02515 What is required for car controls?
- WAC 296-96-02520 What are the location and operation requirements for car position indicators in the car?
- WAC 296-96-02535 What requirements apply to floor designations on elevator door jambs?

WAC 296-96-02540 What are the installation and operation requirements for hall buttons?

WAC 296-96-02545 What are the requirements for installation and operation of hall lanterns?

WAC 296-96-02550 ASME A17.1-3.18.3.8.3 and ASME A17.1-8.7.3.23.1—What are the requirements for underground hydraulic elevator pipes, fittings, and cylinders?

WAC 296-96-02551 ASME A17.1-2.6 and ASME A17.1-8.7.2.6 Protection of spaces below hoistways.

WAC 296-96-02555 What are the requirements for accessing elevated elevator pit equipment?

WAC 296-96-02556 Minimum width, clearances, and access of pit ladders.

WAC 296-96-02557 Pit lighting and stop switch.

WAC 296-96-02560 What are the requirements for submersible pumps or sumps?

WAC 296-96-02564 ASME A17.1-2.4.12.1-2005 Distance required for car top refuge space.

WAC 296-96-02566 ASME A17.1-2.14.7.1.4 Requirements for top of car lighting and receptacle for elevators.

WAC 296-96-02567 ASME A17.1-2.7.6.3.4 Access to governors and brake.

WAC 296-96-02568 ASME A17.1-5.3.1.1 Residential hoistway enclosures.

WAC 296-96-02570 How do we enforce hoistway ventilation?

WAC 296-96-02575 How do we enforce hoistway pressurization?

WAC 296-96-02585 What are the requirements for fire doors installed in front of hoistway doors?

WAC 296-96-02595 What are the general requirements for LULA elevators?

WAC 296-96-02600 What is required for physically handicapped lifts?

WAC 296-96-02620 Private residence vertical platform lifts.

WAC 296-96-02625 Private residence incline platform lifts.

WAC 296-96-02630 Commercial vertical and incline platform lifts.

WAC 296-96-05009 What are the requirements for existing material lifts?

WAC 296-96-07010 What is the scope of Part C-2?

WAC 296-96-07020 What is the definition for inclined private residence elevator?

WAC 296-96-07021 What are the requirements for existing inclined private residence elevators?

WAC 296-96-07024 What rules apply to alterations of inclined private residence elevators?

WAC 296-96-07030 Does the department approve private residence elevator plans and specifications?

WAC 296-96-07035 What are the minimum maintenance requirements for inclined private residence elevators?

WAC 296-96-07040 What are the clearance requirements for an incline runway?

WAC 296-96-07050 What are the construction requirements for car landing enclosures and gates for inclined private residence elevators?

WAC 296-96-07060 What types of bumpers and buffers must be installed on inclined private residence elevators?

WAC 296-96-07070 What are the requirements for machinery beams and supports?

WAC 296-96-07080 What are the load and size requirements for car platforms?

WAC 296-96-07090 What is the maximum rated speed of an incline elevator?

WAC 296-96-07100 What construction requirements apply to inclined private residence elevators?

WAC 296-96-07110 What construction requirements apply to car enclosures?

WAC 296-96-07120 What construction requirements apply to car doors and gates?

WAC 296-96-07130 What type of glass or plastic can be used in a car enclosure?

WAC 296-96-07140 Are capacity and data plates required?

WAC 296-96-07160 What construction requirements apply to counterweights?

WAC 296-96-07170 What are the requirements of safeties and governors?

WAC 296-96-07171 How and when are safeties and governors tested?

WAC 296-96-07180 What are the construction requirements for driving machines and sheaves?

WAC 296-96-07190 What construction requirements apply to terminal stopping switches?

WAC 296-96-07200 What are the requirements for operation of an inclined private residence elevator?

WAC 296-96-07210 What are the construction requirements for suspension methods?

WAC 296-96-07215 What are the requirements for controllers?

WAC 296-96-07220 What are the requirements for traveling cables?

WAC 296-96-07230 What requirements apply to electrical wiring?

WAC 296-96-07240 What are the requirements for track supporting structures?

WAC 296-96-07250 What additional requirements apply to inclined private residence elevators?

WAC 296-96-08010 What is the scope of Part C-3?

WAC 296-96-08020 What is the definition for inclined private residence conveyances for transporting property?

WAC 296-96-08022 What are the requirements for existing inclined private residence conveyances for transporting property?

WAC 296-96-08024 What rules apply to alterations of inclined private residence conveyances for transporting property?

WAC 296-96-08030 Does the department approve elevators plans and specifications for inclined private residence conveyances for transporting property?

WAC 296-96-08035 What are the minimum maintenance requirements for inclined private residence elevators for transporting property?

WAC 296-96-08050 What are the construction requirements for inclined private residence conveyances for transporting property for cars, landing gates, and enclosures?

WAC 296-96-08060 What types of bumpers and buffers must be installed on inclined private residence conveyances for transporting property?

WAC 296-96-08070 What are the requirements for machinery beams and supports?

WAC 296-96-08080 What are the load and size requirements for car platforms?

WAC 296-96-08090 What is the maximum rated speed of an inclined conveyance?

WAC 296-96-08100 What requirements apply to inclined conveyance?

WAC 296-96-08110 What requirements apply to car enclosures?

WAC 296-96-08140 Are capacity and data plates required on inclined private residence conveyances for transporting property?

WAC 296-96-08150 What are the requirements for guide rails, track supports and fastenings?

WAC 296-96-08160 What requirements apply to counterweights?

WAC 296-96-08170 What are the requirements of safeties and governors?

WAC 296-96-08175 How and when are conveyance safeties tested?

WAC 296-96-08180 What are the requirements for driving machines and sheaves?

WAC 296-96-08190 What requirements apply to terminal stopping switches?

WAC 296-96-08200 What are the requirements for the activation and operation of an inclined private residence conveyances for transporting property?

WAC 296-96-08210 What are the requirements for suspension methods?

WAC 296-96-08215 What are the requirements for controllers?

WAC 296-96-08220 What are the requirements for traveling cables?

WAC 296-96-08230 What requirements apply to electrical wiring?

WAC 296-96-08240 What are the requirements for track supporting structures?

WAC 296-96-08250 What additional requirements apply to inclined private residence conveyances for transporting property?

WAC 296-96-09001 What regulations apply to personnel hoists?

WAC 296-96-09002 May a drop plate be used for temporary hoists?

WAC 296-96-09003 What are the requirements for landing gates?

WAC 296-96-09004 Do jumps (increased travel) have to be inspected?

WAC 296-96-10001 What regulations apply to material hoists?

WAC 296-96-10002 Do jumps (increased travel) have to be inspected?

WAC 296-96-11001 What regulations apply to belt manlifts?

WAC 296-96-11010 What are the definitions for belt manlifts?

WAC 296-96-11016 What general requirements apply to belt manlift landings?

WAC 296-96-11019 What requirements apply to the guards and cones of belt manlift landings?

WAC 296-96-11022 What requirements apply to guarding lift entrances and exits?

WAC 296-96-11025 What structural requirements apply to floor opening guards?

WAC 296-96-11028 What structural requirements apply to floor landing guards?

WAC 296-96-11031 What requirements apply to bottom landings?

WAC 296-96-11034 What requirements apply to top clearance?

WAC 296-96-11037 What requirements apply to emergency exit ladders?

WAC 296-96-11040 What lighting requirements apply to belt manlifts?

WAC 296-96-11045 What drive machine requirements apply to belt manlifts?

WAC 296-96-11048 What is an acceptable operating speed for a belt manlift?

WAC 296-96-11051 What are the construction requirements for steps?

WAC 296-96-11054 What requirements apply to the location and construction of handholds?

WAC 296-96-11057 What requirements apply to "up-limit stops"?

WAC 296-96-11060 What requirements apply to emergency stops?

WAC 296-96-11066 What are the warning sign requirements?

WAC 296-96-11070 Can you carry tools and materials on a belt manlift?

WAC 296-96-11078 What is required for belt manlift inspections?

WAC 296-96-13135 What are the requirements for electric manlifts?

WAC 296-96-13136 What are the minimum maintenance requirements for electric manlifts?

WAC 296-96-13139 What structural requirements apply to hoistway enclosures and landings?

WAC 296-96-13143 What structural requirements apply to hoistway gates and doors?

WAC 296-96-13145 What structural requirements apply to elevator cars?

WAC 296-96-13147 What structural requirements apply to elevator doors?

WAC 296-96-13149 What are the structural requirements for counterweights, counterweight enclosures, and counterweight fastenings?

WAC 296-96-13151 What construction requirements apply to car guide rails?

WAC 296-96-13153 What construction requirements apply to hoisting ropes?

WAC 296-96-13155 What are the requirements for a hoistway space?

WAC 296-96-13157 What requirements apply to car safeties?

WAC 296-96-13159 What requirements apply to brakes?

WAC 296-96-13161 What requirements apply to car controls and safety devices?

WAC 296-96-13167 What requirements apply to elevator driving machines?

WAC 296-96-13169 What requirements apply to car and counterweight buffers?

WAC 296-96-13171 What other requirements apply to electric manlifts?

WAC 296-96-14010 What is the scope and application of the department's hand-powered manlift rules?

WAC 296-96-14011 What are the minimum maintenance requirements for hand powered manlifts?

WAC 296-96-14020 What construction requirements apply to hoistway landings and entrances?

WAC 296-96-14025 What are acceptable hoistway clearances?

WAC 296-96-14030 Can there be a habitable space beneath an elevator hoistway or counterweight shaft?

WAC 296-96-14035 What construction requirements apply to hoistway guide rails?

WAC 296-96-14040 What installation requirements apply to buffer springs?

WAC 296-96-14045 What construction specifications apply to hoistway cars?

WAC 296-96-14050 What are the requirements for assembly, installation, and operation of sectional counterweights?

WAC 296-96-14055 What is the minimum acceptable sheave diameter?

WAC 296-96-14060 What requirements apply to hoisting ropes?

WAC 296-96-14065 What requirements apply to operating ropes?

WAC 296-96-14070 Where must hoistway lights be located?

WAC 296-96-14075 What is the factor of safety for overhead supports?

WAC 296-96-14080 What additional requirements apply to the installation and operation of hand powered manlifts?



WAC 296-96-16010 What is the scope of the department's casket lift regulations?

WAC 296-96-16011 What are the minimum maintenance requirements for casket lifts?

WAC 296-96-16020 What requirements apply to the location and operation of machine rooms and machinery space?

WAC 296-96-16030 What equipment can be located in a machine room?

WAC 296-96-16040 What requirements apply to the location of electrical wiring, pipes and ducts in hoistways and machine rooms?

WAC 296-96-16050 Is a pit required in a casket lift hoistway?

WAC 296-96-16060 What requirements apply to the size and location of hoistway door openings?

WAC 296-96-16070 How must hoistway doors be hung?

WAC 296-96-16080 Where must hoistway doors be located?

WAC 296-96-16090 What requirements apply to hoistway doors locks?

WAC 296-96-16100 How should space beneath a hoistway be protected?

WAC 296-96-16110 What requirements apply to car doors and gates?

WAC 296-96-16120 What requirements apply to car enclosures?

WAC 296-96-16130 What requirements apply to the construction of car frames and platforms?

WAC 296-96-16140 How must car frames and platforms be connected?

WAC 296-96-16150 What is the load capacity of a casket lift car?

WAC 296-96-16160 What types of casket lift driving machines are allowed?

WAC 296-96-16170 What material and grooving is required for sheaves and drums?

WAC 296-96-16180 What types of brakes must be used on the driving machine?

WAC 296-96-16190 Where must terminal stopping devices be located?

WAC 296-96-16200 What are the specifications for casket lift ropes and rope connections?

WAC 296-96-16210 What specific requirements apply to hydraulic casket lifts?

WAC 296-96-16220 What requirements apply to valves, supply piping, and fittings?

WAC 296-96-16230 What type of stopping devices must be installed?

WAC 296-96-16240 What type of operating devices must be used?

WAC 296-96-23105 What is the scope of Subpart I?

WAC 296-96-23110 What structural requirements apply to hoistway enclosures?

WAC 296-96-23111 Are guards required for windows in hoistway enclosures?

WAC 296-96-23113 What are the requirements for pipes in hoistways that convey gases, vapors, or liquids?

WAC 296-96-23121 What are the requirements for machine room and machinery space access?

WAC 296-96-23124 What installation requirements apply to pipes conveying gases, vapors, or liquids in machine rooms and machinery spaces?

WAC 296-96-23125 Must elevator machines and control equipment be protected from the weather?

WAC 296-96-23131 What requirements apply to pit drains?

WAC 296-96-23133 What requirements apply to counterweight pit guards?

WAC 296-96-23140 What requirements apply to any space below a hoistway that is not permanently protected from access?

WAC 296-96-23150 Are hoistway doors (gates) required?

WAC 296-96-23151 What requirements apply to hoistway door closing devices?

WAC 296-96-23152 What requirements apply to hoistway door vision panels?

WAC 296-96-23153 What requirements apply to door hangers for horizontal slide doors?

WAC 296-96-23154 Are astragals required?

WAC 296-96-23155 What requirements apply to pull straps?

WAC 296-96-23156 What requirements apply to landing sill clearances?

WAC 296-96-23157 What is the maximum allowable threshold clearance?

WAC 296-96-23160 What requirements apply to hoistway door (gate) locking devices?

WAC 296-96-23161 What requirements apply to elevator parking devices?

WAC 296-96-23162 What requirements apply to hoistway door unlocking devices?

WAC 296-96-23165 What requirements apply to reopening devices for power-operated car doors and gates?

WAC 296-96-23166 What requirements apply to photo electric or electric eye door reopening devices?

WAC 296-96-23203 What requirements apply to buffers and bumpers?

WAC 296-96-23206 What requirements apply to car platforms and frames?

WAC 296-96-23207 What requirements apply to platform guards (aprons)?

WAC 296-96-23208 What requirements apply to hinged platform sills?

WAC 296-96-23209 What requirements apply to floating (movable) platforms?

WAC 296-96-23215 What requirements apply to car enclosures?

WAC 296-96-23216 What requirements apply to the lining materials used on passenger car enclosures?

WAC 296-96-23220 What requirements apply to car doors and gates?

WAC 296-96-23221 What requirements apply to the location of car doors and gates?

WAC 296-96-23222 What control requirements apply to operating circuits?

WAC 296-96-23225 What requirements apply to car emergency exits?

WAC 296-96-23226 What requirements apply to car lighting?

WAC 296-96-23227 What requirements apply to car safeties?

WAC 296-96-23228 What is the maximum amount of governor rope movement allowed when operating a safety mechanism?

WAC 296-96-23229 What requirements apply to rail lubricants and lubrication plates?

WAC 296-96-23235 What requirements apply to speed governors?

WAC 296-96-23236 What requirements apply to speed governor overspeed and car safety mechanism switches?

WAC 296-96-23240 What is the minimum rated load for passenger elevators?

WAC 296-96-23241 What requirements apply to the use of partitions that reduce inside net platform area?

WAC 296-96-23243 What is the minimum rated load for freight elevators?

WAC 296-96-23244 What requirements apply to capacity plates?

WAC 296-96-23245 What requirements apply to signs on freight elevators?

WAC 296-96-23250 What general requirements apply to driving machines and sheaves?

WAC 296-96-23255 What requirements apply to winding drum machines?

WAC 296-96-23256 What requirements apply to indirect-drive machines?

WAC 296-96-23260 What requirements apply to driving machine brakes?

WAC 296-96-23261 What requirements apply to the application and release of driving machine brakes?

WAC 296-96-23262 What requirements apply to normal terminal stopping devices?

WAC 296-96-23264 What requirements apply to final terminal-stopping devices?

WAC 296-96-23266 What types of operating devices must not be used?

WAC 296-96-23268 What requirements apply to car-switch operation elevators?

WAC 296-96-23269 What requirements apply to passenger elevator emergency stop buttons?

WAC 296-96-23270 What requirements apply to car top operating devices?

WAC 296-96-23272 What electrical protective devices are required?

WAC 296-96-23274 What requirements apply to the power supply line disconnect?

WAC 296-96-23276 What requirements apply to phase reversal and failure protection methods?

WAC 296-96-23277 What requirements apply to grounding and overcurrent protections?

WAC 296-96-23278 What requirements apply to the absorption of regenerated power?

WAC 296-96-23279 What requirements apply to door by-pass systems?

WAC 296-96-23280 What requirements apply to all car emergency signaling devices in all buildings?

WAC 296-96-23282 What requirements apply to suspension systems?

WAC 296-96-23284 What is the factor of safety for wire suspension ropes?

WAC 296-96-23285 What is the minimum number of suspension ropes allowed?

WAC 296-96-23287 What requirements apply to suspension rope equalizers?

WAC 296-96-23288 What requirements apply to securing suspension wire ropes to winding drums?

WAC 296-96-23289 What requirements apply to spare rope turns on winding drum machines?

WAC 296-96-23290 What requirements apply to suspension rope fastenings?

WAC 296-96-23291 What requirements apply to auxiliary rope fastening devices?

WAC 296-96-23300 What is the scope of Subpart III, Hydraulic Elevators?

WAC 296-96-23302 What requirements apply to hoistways, hoistway enclosures and related construction?

WAC 296-96-23304 What requirements apply to buffers and bumpers?

WAC 296-96-23307 What requirements apply to car frames and platforms?

WAC 296-96-23309 What requirements apply to car enclosures?

WAC 296-96-23311 What requirements apply to capacity and loading?

WAC 296-96-23313 What requirements apply to driving machine connections?

WAC 296-96-23316 What requirements apply to plunger stops?

WAC 296-96-23318 What requirements apply to pump relief valves?

WAC 296-96-23321 What requirements apply to check valves?

WAC 296-96-23322 What requirements apply to supply piping and fittings?

WAC 296-96-23323 What requirements apply to flexible hydraulic connections?

WAC 296-96-23324 What general requirements apply to tanks?

WAC 296-96-23325 What requirements apply to pressure tanks?

WAC 296-96-23326 What requirements apply to terminal stopping devices?

WAC 296-96-23328 What requirements apply to operating devices?

WAC 296-96-23330 What requirements apply to car top operating devices?

WAC 296-96-23332 What requirements apply to anti-creep leveling devices?

WAC 296-96-23334 What requirements apply to electrical protective devices?

WAC 296-96-23336 What requirements apply to power supply line disconnects?

WAC 296-96-23338 What requirements apply to devices that make hoistway door interlocks or electric contacts and car door (gate) electric contacts inoperative?

WAC 296-96-23340 What requirements apply to control and operating circuits?

WAC 296-96-23342 What requirements apply to emergency operation and signaling devices?

WAC 296-96-23344 What additional requirements apply to counterweighted hydraulic elevators?

WAC 296-96-23400 What is the scope of Subpart IV, Escalators?

WAC 296-96-23405 What requirements apply to balustrades?

WAC 296-96-23408 How much clearance is required between skirt panels and step treads?

WAC 296-96-23410 What requirements apply to guards at ceiling or soffit intersections?

WAC 296-96-23412 What requirements apply to anti-slide devices?

WAC 296-96-23414 What requirements apply to handrails?

WAC 296-96-23416 What requirements apply to handrail guards?

WAC 296-96-23418 What requirements apply to step riser slotting?

WAC 296-96-23420 What requirements apply to step tread slotting?

WAC 296-96-23422 What requirements apply to combplates?

WAC 296-96-23424 What general requirements apply to escalator brakes?

WAC 296-96-23427 What requirements apply to main drive shaft brakes?

WAC 296-96-23429 What requirements apply to starting switches?

WAC 296-96-23431 What requirements apply to emergency stop buttons?

WAC 296-96-23432 What requirements apply to speed governors?

WAC 296-96-23434 What requirements apply to broken step-chain devices?

WAC 296-96-23436 What requirements apply to brake applications?

WAC 296-96-23438 What requirements apply to broken drive-chain devices?

WAC 296-96-23440 What requirements apply to skirt obstruction devices?

WAC 296-96-23442 What requirements apply to rolling shutter devices?

WAC 296-96-23444 What requirements apply to reversal stop device?

WAC 296-96-23446 What requirements apply to tandem operations?

WAC 296-96-23448 What requirements apply to caution signs?

WAC 296-96-23450 What requirements apply to step tread lighting?

WAC 296-96-23455 What requirements apply to comb and step distinction?

WAC 296-96-23460 What requirements apply to safety zone?

WAC 296-96-23465 What requirements apply to landing access plates?

WAC 296-96-23500 What is the scope of Subpart V, Dumbwaiters and hand-powered elevators?

WAC 296-96-23510 What requirements apply to electric and electro-hydraulic dumbwaiters?

WAC 296-96-23540 What requirements apply to hand-power elevators and dumbwaiters?

WAC 296-96-23600 What is the scope of Part VI, Alterations, Repairs and Maintenance?

WAC 296-96-23601 ASME A17.1-8.6.1.2.1 General maintenance requirements for conveyances regulated by ASME A17.1 Part 8.

WAC 296-96-23602 ASME A17.1-8.6.1.4 Maintenance records.

WAC 296-96-23603 ASME A17.1-8.6.1.6.3(a) Wiring diagrams.

WAC 296-96-23604 ASME A17.1-8.6.1.7 Periodic tests.

WAC 296-96-23610 What requirements apply to routine examinations and periodic or category 01, 03, and 05 safety tests?

WAC 296-96-23620 What requirements apply to alterations, repairs and maintenance?

WAC 296-96-23621 ASME A17.1-8.7.1.7 Repairs and replacement.

WAC 296-96-23630 What requirements apply to elevator equipment displaced by seismic activity?

WAC 296-96-23710 What requirements apply to lifts for the physically handicapped?

WAC 296-96-23800 What is the scope of Subpart VIII, Sidewalk Elevators?

WAC 296-96-23810 What requirements apply to electrically operated sidewalk elevators?