Oregon Department of Consumer & Business Services
Building Codes Division

Elevator Safety Program
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Acceptance Inspection Checklist

Construction-use Elevator Checklist

Passenger Elevators

Code References
ASME A17.1, 2004 – Effective 4/1/2005
Oregon Structural Specialty Code 2003 – Effective 10/1/2004
Oregon Electrical Specialty Code 2005 – Effective 4/1/2005
Oregon Plumbing Specialty Code – Effective 4/1/2005
NFPA 72, 2002; Fire Alarm Systems
NFPA 13, 2002; Sprinkler Systems

Note: Potential code violations are not necessarily restricted to this checklist.

The comments used in this checklist give direction only and are not intended to circumvent actual code language. Please refer to the appropriate standard as necessary to clarify any code issues that may arise during this inspection.

The codes referenced in this checklist are applicable to the elevator installation as of the effective date of April 1, 2005. If the structural or electrical permit was issued prior to April 1, 2005, the previous edition of the elevator code may be used to resolve code conflicts providing a the issue date for the electrical or structure permit can be verified by the elevator inspector.

While the Elevator Safety Program does not directly regulate the building code, it is permissible to question code issues and request clarification or validation from the local building department. The elevator inspector cannot require any corrections unless supported by the local building department in such cases.

Indicate elevator type: Electric ☐ Hydraulic ☐			
Site Name:			Code Date: _____/_____
Contractor:			
Elevator ID: _____-_____			
1st Inspection Date	2nd Inspection Date	3rd Inspection Date	4th Inspection Date
____/____/____	____/____/____	____/____/____	____/____/____

Note: This inspection is billable @ 59.40/hour, portal to portal (includes 8% surcharge).
Construction-use permits expire once a satisfactory final inspection is achieved.

Hoistway Enclosures & Top of Car Clearances	A17.1	Comments	OK
Hoistways	5.10.1.1.1(a)	1) Areas adjacent to hoistway where contact with elevator is possible must be totally enclosed.	☐
		a) Must withstand 890 N (200 lbf) at right angles on any 10 000 mm^2 (16 in^2)area.	☐
		b) Open grillwork allowed except on all but entrance side.	
		i) Must reject a 25 mm (1 in.) ball.	☐
		ii) Must provide a minimum of 150 mm (6 in.) between enclosure and nearest member of car.	☐
		iii) Cannot be used on car over 1.75 m/s (350 fpm).	☐
	5.10.1.1.1(b)	2) Solid overhead protection required over entire hoistway……	……..
		a) Must support 1335 N (300 lbf) on any 10 000 mm^2 (16 in^2)area.	☐
	5.10.1.1.1(c)	3) Multiple car hoistway:……	……..
		a) Hoistway shall be separated from other cars	☐
		i) Material must be equal or greater in strength than 1 mm (0.0437 in.) diameter wire.	☐
		ii) Maximum openings of 25 mm (1 in.).	☐
		iii) Withstand 4.79 k Pa (100 lbf/ft^2)at any point without more than 25 mm (1 in.) deflection.	☐
Hoisting Materials (This rule entered for operational requirements only)	5.10.1.1.2	1) Hoisting of materials while car is operating is not allowed in the hoistway of the running car.	☐
		2) Work is prohibited in adjacent hoistways unless 5.10.1.1.1(c) is in compliance.	☐
		3) Hoisting in adjacent hoistways must be under the supervision of the elevator contractor.	☐
Machine Rooms	5.10.1.7.1(a)	1) Room must be fully enclosed with suitable enclosure (does not need to be the permanent enclosure)	☐
		a) Must withstand a 450 N (100 lbf) at any 10 000 mm^2 (16 in^2) area.	☐
		b) Must be protected from weather.	☐
		c) Overhead must be entirely enclosed as required by 5.10.1.1.1(b).	☐
	5.10.1.7.1(b)	d) Access routes must be clear and protected.	☐
		2) Machine room door:……	……..
		a) Minimum 1830 mm (72 in.) high	☐
		b) Kept closed & locked	☐
	5.10.1.7.1(c)	3) Temporary lighting shall be provided; minimum 10ftc illumination at floor level.	☐
	5.10.1.7.1(d)	4) Housekeeping……	……..
		a) Machine room shall not contain refuse.	☐
		b) Storage of construction materials, tools, etc. is permissible.	☐
		c) Cannot store any materials with a flash point of less than 38°C (100°F).	☐
	5.10.1.7.2	5) Machine Room Floors:……	……..
	5.10.1.7.2(a)	a) Must be comprised of metal, concrete or wood. Wood planking must be of scaffold grade or equivalent.	☐
	5.10.1.7.2(a)(2)	b) Access to governors required.	☐
		c) Floor must be above, level with or directly below machine beams.	☐
		d) Must support a live load of 195 kg/m^2 (40 lb/ft^2).	☐
		e) Floor shall extend over entire hoistway (refer to 2.1.3.5)	☐
Emergency Doors	5.10.1.9.2	1) Must comply with 2.11.1.1 & 2.11.1.2	☐
Floor Numbering	5.10.1.22	1) Must have a minimum of 100 mm (4 in.) high number on inside of hoistway doors or enclosure.	☐
Horizontal Clearances	5.10.1.5	1) Clearances must conform to:	
		a) 2.5.1.1; minimum 19 mm (¾ in.)between car and hoistway enclosure.	☐
		b) 2.5.1.2; minimum 25 mm (1 in.) between car & cwt.	☐
		c) 2.5.1.2; minimum 19 mm (¾ in.) between cwt. guard and cwt.	☐
		d) 2.5.1.3; minimum 50 mm (2 in.) between cars in multiple-car hoistway	☐
		e) 2.5.1.4; minimum 13 mm (½ in.) between car and H/W sill except maximum can be 100 mm (4 in.).	☐
		f) 2.5.1.5; measured with no load in car.	☐
		NOTE: These dimensions may need to be increased under seismic requirements in Section 8.4 before job is finaled.	

Hoistway Enclosures & Top of Car Clearances	A17.1	Comments	OK
Top of Car Clearance (See Table 2.4.2.2) *t* = maximum travel above top landing mm (in.) *S* = cwt. Buffer stroke mm (in.) *R* = bottom cwt. Runby mm (in.) *Sc* = cwt. compression w/car at top landing mm (in.) *Vr* = rated speed m/s (fpm) *Vg* = governor tripping speed m/s (fpm)	2.4.6	With Comp. rope tie down: 1. Compressed buffer w/car at top floor; *(t = S - Sc)* t = _____ - _____ = _____" 2. Reduced stroke buffer; *(t = R + S)* t = _____ + _____ = _____" 3. Other oil buffers; *(t = R + S)* t = _____ + _____ = _____" Without comp. rope tie down:…… 1. Compressed buffer w/car at top floor; $t = S - S_c + V_r^2(3.423x10^{-5})$ *t* = _____ - _____ + _____^{2} (3.4.23$x10^{-5}$) 2. Reduced stroke buffer; *(R + 1.5S)* *t* = _____ + 1.5 _____ 3. Other oil buffers; $t = R + S + V_r^2(3.423x10^{-5})$ *t* = _____ + _____ + _____^{2}(3.423$x10^{-5}$) 4. Spring buffers; $t = R + S + V_g^2(2.588x10^{-5})$ *t* = _____ + _____ + _____^{2}(2.588$x10^{-5}$)	N/A ☐ ☐ ☐ ☐ …N/A ☐ ☐ ☐ ☐ ☐
	2.45	1) A data plate must be provided in the pit an in the area of the counterweight buffer indicating the *designed* cwt. runby. 2) The data plate must have 25 mm (1") high letters or numbers and shall be of a permanent and legible type.	☐ ☐
Equipment Clearances Refer to 2.4.6 for value of *'t'*.	2.4.7	3) Minimum 150 mm (6") from overhead a) A > *t* Actual A = _____" b) B > *t* + 150 mm (6") Actual B = _____" c) C > *t* + 610 mm (24") Actual C = _____"	☐ ☐ ☐
Hoistway Doors & Gates If the permanent doors are installed, the use of normal interlocks is also required.	5.10.1.9.1 5.10.1.9.4 5.10.1.9.5(a) 5.10.1.9.5(b) 5.10.1.9.6 5.10.1.9.7 5.10.1.9.8	1) Doors shall conform to the following: a) Protect the full height and width of the opening b) Withstand 1112 N (250 lbf) on any 10 000 mm^2 (16 in^2) area without deformation c) Open grill-work must reject a 25 mm (1") ball d) Permanent doors shall comply with Sections 2.11 & 2.13 2) Temporary swing doors shall conform to the following: ……... a) Vision panel shall be installed; i) must reject a 25 mm (1") ball ii) be not more than .016 m^2 (25 in^2) iii) between 1370 mm (54") and 1675 mm (66") above floor level b) Cars with speeds 1.75 m/s (350 fpm) or less i) Requires a mechanical latch that can not be opened from landing side. ii) Must be self latching device c) A designated landing shall be provided i) with the means to access the car from the landing side. ii) must be provided with means to lock entrance out of service. d) Cars over 1.75 m/s (350 fpm): i) Provided with normal door interlocks (ref. 2.12.3) ; or ii) Combination mechanical locks and electric contact (ref. 2.12.4). 3) Doors are to be fully closed and latched before considered closed. 4) Permanent doors shall be provided with required hanger, tracks, stops and guides. 5) Closing weights may be located in guides outside the hoistway. When located inside hoistway they must conform to 2.11.8.	☐ ☐ ☐ ☐ …N/A ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Guide Rails	5.10.1.19	Must conform to standards of Section 2.23. Seismic requirements to be provided prior to final inspection.	☐
Counterweights	5.10.1.17	Must conform to 2.21 for finished elevator with the exception of seismic requirements.	☐

Pits & Bottom Clearances	A17.1	Comments	OK
Pits	5.10.1.2	1) Pit must be provided. 2) Suitable guards between adjacent pits are required. 3) Minimum depth required as per 2.2.7.	☐ ☐ ☐
Spaces Below	5.10.1.6	1) Protection of spaces below hoistway must comply with 2.6 or space may be temporarily secured against access.	☐
Bottom Car Clearances	5.10.1.4	1) Bottom clearances shall conform to 2.4.1 a) Minimum 610 mm (24 in.) to any equipment installed under platform except within a 300 mm (12 in.) wide parameter from the platform edge. This includes the bolster channels. b) the refuge space shall be not less than: c) 610 mm x 1220 mm x 610 mm (24"w x 48"l x 24"h); or d) 160 mm x 915 mm x 1100 mm (18"w x 36"l x 43"h) e) Actual: _____w x _____l x _____ h ☐ mm or ☐ in.	☐ ☐ ☐ ☐
Bottom Car Runby Rated Speed: _____ m/s _____ fpm	5.10.1.4	1) Uncounterweighted: — Actual Dimensions a) <= 0.13 m/s (25 fpm); 75 mm (3"); — _____ ☐mm ☐in b) > 0.13 m/s (25 fpm); 150 mm (6"); — _____ ☐mm ☐in 2) Counterweighted w/spring buffers & rheostatic control or s/sp. AC control: a) <= 0.13 m/s (25 fpm); 75 mm (3"); — _____ ☐mm ☐in b) >0.13 – 0.25 m/s (25-50 fpm); 150 mm (6"); — _____ ☐mm ☐in c) > 0.25 - 0.50 m/s (50-100 fpm); 225 mm (9"); — _____ ☐mm ☐in d) > 0.50 to 1.0 m/s (100-200 fpm); 300 mm (12"); — _____ ☐mm ☐in 3) 2.4.2.1: w/oil buffers; 150 mm (6"); — _____ ☐mm ☐in 4) 2.4.2.2 w/spring buffers; 150 mm (6") — _____ ☐mm ☐in 5) Maximum Runby: i) car; 610 mm (24"); — _____ ☐mm ☐in ii) cwt.; 915 mm (36"); — _____ ☐mm ☐in	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Refuge Space	2.4.12 (3.4.3)	1) Minimum Area: a) 0.5 m^2 (5.4 ft^2) 600 mm (24)" on any side i) Actual Area _____ m^2 (in^2) b) 1100 mm (43") high i) Actual height _____ mm (in.)	☐ ☐
Beams & Supports	5.10.1.8	1) All equipment must be adequately supported. Temporary supports may be used providing they provide sufficient structural support to withstand the loads imposed during construction use operation.	☐
Counterweight Pit Guards	5.10.1.3	1) Guards are required to be installed on all open sides of the counterweight runway.	☐
Car & Cwt. Buffers	5.10.1.18	1) Must conform to 2.22 for finished elevator.	☐
Car Enclosures & Platforms	**A17.1**	**Comments**	**OK**
Car Frames & Platforms	5.10.1.11	1) Must comply with requirements for finished elevator.	☐
Car Enclosure	5.10.1.10.1 5.10.1.10.2 5.10.1.10.3 5.10.1.10.4	1) Car enclosure must comply with the following: a) Fully enclosed with metal or wood. b) Solid enclosure with no openings except at entrances. c) Maintain clear height of 1980 mm (78"). d) Car tops must sustain a load of 135 kg (300 lbs.) per .09 m^2 (1ft^2) of area. e) Securely fastened to the platform and supported to prevent shifting. f) Minimum illumination of a of 50 lx (5 ftc) at platform sill. i) Lamps shall be suitably guarded. g) Provided with an emergency exit of standard size attached to the car top. h) Not to be operated with loads protruding through the escape hatch except as follows: i) Operation of car is under supervision of elevator contractor & ii) Maximum speed of 0.75 m/s (50 fpm.).	 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Glass in Cars	5.10.1.10.5	1) Shall not be used in cars except for light fixtures and as necessary for the operation of the car. 2) Glass cab panels should be refrained from being installed or protected with plywood or other suitable material while elevator is being used as a construction car.	☐ ☐

Car Enclosures & Platforms	A17.1	Comments	OK
Car Emergency Signal	5.10.1.10.7	1) Must be equipped with an audible signaling device or two-way communication device. Communication device may be portable.	☐
Car Doors and Gates	5.10.1.10.8	1) The car door shall: a) Guard the full height and width of the opening b) Be comprised of solid or open grill-work. c) Open grill-work shall reject a 25 mm (1") diameter ball. d) Collapsible car gates must reject a 75 mm (3") diameter ball. e) Must contain a gate switch.	 ☐ ☐ ☐ ☐ ☐
Safeties & Governors	5.10.1.13 5.10.1.14	1) Car safeties are required. 2) Governors are required.	☐ ☐
Signs & Data plates	5.10.1.23	1) Capacity plate required with minimum 25 mm (1") high lettering (may be a temporary sign). 2) Data plates shall include the following information:…….. a) the approximate car weight b) temporary rated load c) maximum number of passengers d) temporary rated speed e) wire rope data f) manufacturer's name g) date of installation h) minimum 3 mm (1/8") high lettering i) located on crosshead or inside car	☐ …….. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Rated Load & Speed	5.10.1.12.1 5.10.1.12.3	1) Inside rated load shall be based on inside platform area (refer to 2.16.1 for passenger elevators). 2) Maximum number of passengers shall be based on temporary rated load divided by 90 kg (200 lb). 3) Speeds shall not exceed 5 m/s (1000 fpm). NOTE: governors and safeties must be calibrated for the rated car speed used.	☐ ☐ ☐
Driving Machines	5.10.1.20	1) Machines must conform to the requirements for the finished elevator.	☐
Suspension Means	5.10.1.16	1) Ropes shall conform to the requirements for the finished elevator except for progressive rise installations. 2) Provide a rope data tag.	☐ ☐
No Load Safety Test	8.10	1) A no load safety test shall be performed.	☐
Car Operator	OAR 918-400-0450	1) An operator is required in the elevator during all hours of operation unless the elevator complies with standards for at least a provisional status for public use.	☐
Hydraulic Elevators	**5.10.2**		
Valves, Flexible Hoses and Fittings (refer to 3.19.3.3)	5.10.2.8	1) H/P hoses shall: a) not be installed in hoistways or through walls. b) have a minimum bending radius of as required by SAE 100 R2 c) be wire reinforced as specified by SAE J5 17D d) withstand 10 times working pressure e) marked as required by SAE f) marked with a replacement date no more than 6 years from installation	N/A ☐ ☐ ☐ ☐ ☐ ☐
Supply Line and Shut Off	3.19.1 Ore. Amend	2) Located in M/R and/or Pit. Fittings and piping and valves shall: a) have a safety factor of 5 b) mfg. kPa (psi) x mfg. SF/5 = allowable working kPa (psi). 3) Can not be cast iron, malleable iron or certain brass or bronze materials.	 ☐ ☐ ☐
Control Valve	5.10.2.8	1) Ensure valve is of the type that comprises a check valve and manual lowering.	☐
Supply Piping (refer to 3.19)	5.10.2.8	1) Ensure piping is of appropriate size. (If piping is not distinguishable as to its rating, require documentation as to its characteristics.) 2) Ensure joints are properly fastened and there are no leaks 3) Connections shall only be one or more of the following types:…… a) welded b) threaded c) grooved d) bolted flange	☐ ☐ …….. ☐ ☐ ☐ ☐
Tanks: Hydraulic Power Unit (refer to 3.24)	5.10.2.10	1) Working Pressure must appear on plate 2) Liquid level indicator (e.g. dip-stick or sight glass) 3) Covers and venting	☐ ☐ ☐

Hydraulic Elevators	5.10.2	Comments	OK
Pressure Tanks	3.24.4	Unless covered by A17.1, must conform to ASME Boiler and Pressure Vessel Code	N/A ☐ ☐
Operating Devices	**A17.1**		
Operating Devices (refer to Section 2.26)	5.10.1.21.1	1) The following devices must be operational: a) Car top inspection station (2.26.1.4) b) Slack-rope device (2.26.2.1) c) MG Running Switch (2.26.2.2) d) Comp-rope switch (2.26.2.3) e) Motor sensing fields (2.26.2.4) f) Emergency stop switch [freight elevators only] (2.26.2.5) g) Broken Rope, Tape or Chain Switch (2.26.2.6) h) Pit stop switch (2.26.2.7) i) Car top stop switch (2.26.2.8) j) SOS switch (2.26.2.9) k) Governor over-speed switch (2.26.2.10) l) Final limits (2.26.2.11) m) Terminal speed limits (2.26.2.12) n) Buffer switches (2.26.2.13) o) Hoistway door locks (2.26.2.14) p) Car door contact (2.26.2.15) q) Emergency terminal stopping device (2.26.2.16) r) Car Top Emergency Exit Switch (2.26.2.18) s) MG overspeed protection (2.26.2.19) t) Passenger car stop switch (2.26.2.21) u) Buffer Switches (2.26.2.22) v) Remote M/R stop switch (2.26.2.23) w) Overhead Machinery Space (2.26.2.24)	☐ ☐
	2.26.6	2) Phase-reversal & failure protection	☐
	2.26.8	3) Electrically released & mechanically set brake	☐
Wiring	5.10.1.21.3	1) Must conform to NFPA 70 (1996) 2) Temporary wiring must conform to Article 305.	☐
Unintended Car Movement	5.10.1.15	1) Unintended car movement protection is required and must comply with 2.19.	☐
Ascending Car Overspeed	5.10.1.15	1) Ascending car overspeed protection is required and must comply with 2.19.	☐