

## **DEPARTMENT OF LABOR AND EMPLOYMENT**

### **Division of Oil and Public Safety**

## **CONVEYANCE REGULATIONS**

### **7 CCR 1101-8**

*[Editor's Notes follow the text of the rules at the end of this CCR Document.]*

## **ARTICLE 1 GENERAL PROVISIONS**

### **Section 1-1 Statement of Basis and Purpose**

These regulations are promulgated to establish rules for the design, installation, registration, construction, operation, maintenance, and inspection of conveyances, and for the licensing of conveyance mechanics, contractors, and inspectors. The purpose of these regulations is to ensure that elevators and other automated conveyances are correctly and safely installed and operated within the state.

### **Section 1-2 Statutory Authority**

These regulations have been created pursuant to the Elevator and Escalator Certification Act, Title 9 Article 5.5 Section 116 of the Colorado Revised Statutes (C.R.S.).

### **Section 1-3 Effective Date**

These amended regulations shall be effective on January 1, 2011. The prior editions of the regulations were effective January 1, 2010 and January 1, 2009. Emergency regulations were in effect from April 2, 2008 until the promulgation of permanent rules.

### **Section 1-4 Definitions**

Terms in these regulations shall have the same definitions as those found in Article 5.5 of Title 9 of the C.R.S. or as defined below:

- (1) **ACCEPTANCE INSPECTION.** The initial inspection and testing, conducted by a licensed Conveyance Inspector, of a new or altered conveyance to verify compliance with standards as defined in these regulations.
- (2) **ADVISORY BOARD.** A group of experts within the conveyance industry chosen by the Administrator to assist in the development of regulations and resolution of issues relating to the operation of the program.
- (3) **AFFILIATED.** An employment or subsidiary relationship between two entities.
- (4) **AHJ CONVEYANCE INSPECTOR.** A conveyance inspector who is employed by an Approved AHJ to inspect a conveyance, and who is not affiliated with the conveyance mechanic whose repair, alteration, or installation is being inspected.
- (5) **AHJ-APPOINTED CONVEYANCE INSPECTOR.** A conveyance inspector who is employed by a non-profit entity, voluntary association, or other council of governments that has been appointed or designated by an Approved AHJ to provide conveyance plan review and/or inspection services, and who is not affiliated with the conveyance mechanic whose repair, alteration, or installation is being inspected.

- (6) ALTERATION. As defined in American Society of Mechanical Engineers (ASME) A17.1; “any change to equipment, including its parts, components, and/or subsystems, other than maintenance, repair, or replacement” and as further defined by the Administrator as an activity that requires an alteration permit, as defined in Section 2-2-1-1.
- (7) ALTERNATE MATERIALS AND METHODS REQUEST. The submittal of documentation to the Administrator or Approved AHJ by a Conveyance Owner or conveyance contractor that justifies the use of alternate methods or materials for the implementation of standards adopted pursuant to these regulations.
- (8) APPROVED AUTHORITY HAVING JURISDICTION (AHJ). A local jurisdiction, or any agent thereof, that has been approved by the Administrator pursuant to Section 2-3 of these regulations.
- (9) ASCE. American Society of Civil Engineers.
- (10) ASCE 21. Automated People Mover Standards published as ASCE 21 Parts 1 through 4, as amended by the ASCE.
- (11) ASME. American Society of Mechanical Engineers.
- (12) ASME A17.1. Safety Code for Elevators and Escalators published by ASME.
- (13) ASME A17.2. Guide for Inspection of Elevators, Escalators, and Moving Walks published by ASME.
- (14) ASME A17.3. Safety Code for Existing Elevators and Escalators published by ASME.
- (15) ASME A18.1. Safety Standard for Platform Lifts and Stairway Chairlifts published by ASME.
- (16) ASME QEI-1. Standard for the Qualifications of Elevator Inspectors published by ASME.
- (17) AUTHORITY HAVING JURISDICTION (AHJ). A local jurisdiction that includes a fire department, fire district, or fire authority, responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.
- (18) AUTOMATED PEOPLE MOVER (APM). As defined in ASCE 21; “a guided transit mode with fully automated operation, featuring vehicles that operate on guideways with exclusive right-of-way.”
- (19) AUTOMATED PEOPLE MOVER (APM) ALTERATION. Any change to equipment, including its parts, components, and/or subsystems, other than maintenance, repair, or replacement that does not materially affect the APM integrity, operation or control.
- (20) CERTIFICATE OF OPERATION. A document issued by the Administrator or an Approved AHJ for a conveyance that indicates that the conveyance has had the required safety inspection and tests, and fees have been paid as set forth in these regulations.
- (21) CERTIFICATE OF SUBSTANTIAL COMPLETION. Certificate issued by the owner of an APM system stating that work relating to a product has progressed to the point that the owner can beneficially occupy or utilize the product for the purpose for which it is intended, and the work and product comply with all applicable codes and regulations.
- (22) CONSTRUCTION CERTIFICATE OF OPERATION. A document issued by the Administrator or an Approved AHJ for a conveyance that allows the temporary operation of a conveyance for the support of construction activities and is not accessible to the public.
- (23) CONVEYANCE CONTRACTOR. A person who holds a current conveyance contractor license

issued by the Administrator.

- (24) CONVEYANCE INSPECTOR. A person as described in (4), (5) or (46) of this Section who holds a current conveyance inspector license issued by the Administrator who is not affiliated with the Conveyance Owner, or general contractor or conveyance contractor performing work on the conveyance.
- (25) CONVEYANCE MECHANIC. A person who holds a current conveyance mechanic or temporary conveyance mechanic license issued by the Administrator.
- (26) CONVEYANCE OWNER. The owner of the conveyance or assigned agent responsible for maintaining the conveyance.
- (27) DOOR RESTRICTORS. As described in ASME A17.3-2005 Section 2.7.5.
- (28) DUMBWAITER. As defined in ASME A17.1; “a hoisting and lowering mechanism equipped with a car of limited size that moves in guide rails and serves two or more landings that is used exclusively for carrying materials.”
- (29) ELECTRIC ELEVATOR. As defined in ASME A17.1; “a power elevator in which the energy is applied, by means of an electric driving machine” .
- (30) ELEVATOR. As defined in ASME A17.1; “a hoisting or lowering mechanism, equipped with a car that moves within guides and serves two or more landings.”
- (31) ESCALATOR. As defined in ASME A17.1; “a power-driven inclined, continuous stairway used for raising or lowering passengers.”
- (32) FIREFIGHTERS’ SERVICE. As described in ASME A17.3-2005 Section 3.11.3.
- (33) HYDRAULIC ELEVATOR. As defined in ASME A17.1; “a power elevator in which the energy is applied, by means of a liquid under pressure, in a hydraulic jack” .
- (34) INJURY. An injury that results in death or requires medical treatment (other than first aid) administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment for one time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and any other minor injuries that do not ordinarily require medical care even though treatment is provided by a physician or by registered professional personnel.
- (35) LICENSE. A written license, duly issued by the Administrator, authorizing a person, sole proprietor, firm, or company to carry on the business of erecting, constructing, installing, altering, servicing, repairing, maintaining or performing inspections of conveyances covered by these regulations.
- (36) LOCAL JURISDICTION. A city, county, or city and county or any agent thereof.
- (37) MANAGING AGENT. A person or company that is hired by the building owner or lessee to be responsible for maintenance of the conveyance(s).
- (38) MATERIAL RISK. A risk to public safety as determined by the Administrator in cooperation with local jurisdictions.
- (39) MOTION CONTROL. As defined in ASME A17.1 as “that portion of a control system that governs the acceleration, speed, retardation, and stopping of the moving member” .

- (40) MOVING WALK. As defined in ASME A17.1; “a type of passenger-carrying device on which passengers stand or walk, and in which the passenger-carrying surface remains parallel to its direction of motion and is uninterrupted.”
- (41) NFPA 13. The National Fire Protection Association 13 – Standard for the Installation of Sprinkler Systems.
- (42) OPERATION CONTROL. As defined in ASME A17.1 as “that portion of a control system that initiates the starting, stopping, and direction of motion, in response to a signal from an operating device” .
- (43) PERIODIC INSPECTION. The inspection and testing, conducted by a licensed conveyance inspector, of an existing conveyance to verify compliance with standards as defined in these regulations.
- (44) PERSONNEL HOIST. A “special purpose personnel elevator” as defined in ASME A17.1; “an elevator that is limited in size, capacity, and speed, and permanently installed in structures, such as grain elevators, radio antennae, bridge towers, underground facilities, power plants, and similar structures to provide vertical transportation of authorized personnel and their tools and equipment only.”
- (45) PLATFORM LIFT. As defined in ASME A18.1; “a powered hoisting and lowering mechanism designed to transport mobility impaired persons on a guided platform that travels vertically or on an incline.”
- (46) PRIVATE CONVEYANCE INSPECTOR. A conveyance inspector who is not an Approved AHJ or Approved AHJ-appointed Conveyance Inspector but is retained by the Conveyance Owner to inspect a conveyance and who is not affiliated with the conveyance mechanic whose repair, alteration, or installation is being inspected.
- (47) PRIVATE RESIDENCE CONVEYANCE. A power passenger conveyance that is limited in size, capacity, rise, and speed, and is designed to be installed in a private residence or in a multiple dwelling as a means of access to a private residence.
- (48) REPAIR. As defined in ASME A17.1; “reconditioning or renewal of parts, components, and/or subsystems necessary to keep equipment in compliance with applicable Code requirements” .
- (49) REPLACEMENT. As defined in ASME A17.1; “the substitution of a device or component and/or subsystems, in its entirety, with a unit that is basically the same as the original for the purpose of ensuring performance in accordance with applicable Code requirements” .
- (50) SUBSTANTIAL ALTERATION. An alteration that includes:
- (a) The change in type of service of an elevator, or
  - (b) The change in the type of operation control or motion control on an elevator, or
  - (c) The replacement of a controller in conjunction with another alteration on an electric elevator.
- (51) SYSTEM VERIFICATION. Activities with a set of minimum standards by which an APM system application shall be verified to meet the ASCE 21 Parts 1, 2, and 3, which shall include the elements of design review, analysis, qualification test, acceptance test, inspection, demonstration, and previous experience as listed in ASCE 21 Part 4 Section 14 (System Verification and Demonstration).
- (52) TEMPORARY CERTIFICATE OF OPERATION. A document issued by the Administrator or an

Approved AHJ for a conveyance that allows the temporary operation of a conveyance for public use if life safety issues have not been identified following the inspection by a Conveyance Inspector.

(53) TYPE OF SERVICE. The passenger or freight classification for the use of an elevator.

### **Section 1-5 Scope**

These Conveyance Regulations apply to all conveyances listed below, as defined in Section 1-4, and except as provided in § 9-5.5-104 (2) C.R.S.

- (1) Hoisting and lowering mechanisms equipped with a car or platform that moves between two or more landings. Such equipment includes, but is not limited to:
  - (a) Elevator
  - (b) Platform lift
  - (c) Personnel hoist
  - (d) Dumbwaiter
- (2) Power-driven stairways and walkways for carrying persons between landings. Such equipment includes, but is not limited to:
  - (a) Escalator
  - (b) Moving walk
- (3) Automated People Movers (APM) as defined in ASCE 21.

## **ARTICLE 2 ADMINISTRATION**

### **Section 2-1 Registration**

- (1) The Conveyance Owner shall register the conveyance with the Administrator.
- (2) The registration notice shall include:
  - (a) A completed conveyance registration form provided on the Administrator's website.
  - (b) The registration fee of \$200 per conveyance.
- (3) Upon the Administrator's approval of the registration, the Administrator will assign a unique number to the conveyance and to the facility at which the conveyance is located. The Administrator will provide a registration data plate to the Conveyance Owner that shall be affixed near the upper right hand corner of the controller or if a controller is not present, near the serial number of the conveyance.
- (4) Conveyances installed after July 1, 2008 shall be registered with the Administrator before they are placed into service.
- (5) The Conveyance Owner shall be responsible to notify the Administrator of any change in registration information.

## **Section 2-2 Construction, Inspection and Tests**

### **Section 2-2-1 Construction**

#### **Section 2-2-1-1 Installation or Alteration**

- (1) The Conveyance Owner or Conveyance Contractor who intends to install a conveyance or to complete an Alteration on an existing conveyance shall submit a permit application to the Administrator at least thirty (30) days prior to commencing construction. This permit application will include the following:
  - (a) A completed permit application form provided on the Administrator's website.
  - (b) One set of specifications and accurately-scaled and fully-dimensioned construction plans. These plans must include the applicable code edition which shall conform to the edition of the code currently adopted by the Administrator or Approved AHJ, and must include specifications of interior cab materials or indication on the plans that interior cab work is to be completed by others.
  - (c) Fee payment according to the fee schedule in Table 1.
- (2) Alteration activities regarding elevators which require a permit application to be submitted to the Administrator are:
  - (a) Addition of power operation to door systems.
  - (b) Changes to the guide rails, supports, or fastenings.
  - (c) Changes to car or counterweight buffers where the load rating has been altered.
  - (d) Increase or decrease of the dead weight of the car that is sufficient to increase or decrease the sum of the dead weight and rated load, as originally installed, by more than 5%. Where this alteration increases the original building design reactions by more than 5%, the permit application must also include documentation that the adequacy of the affected building structure has been verified by a licensed professional engineer.
  - (e) Installation of new car or counter weight safeties or alteration to existing safeties. If new car safeties are added to an existing conveyance, the permit application must also include documentation that the adequacy of the affected building structure, guide rails, supports, and fastenings have been verified by a licensed professional engineer.
  - (f) Installation or alteration to a speed governor.
  - (g) Increase of rated load.
  - (h) Installation or alteration to driving machine, driving machine brake, or driving machine sheaves. This includes moving a driving machine.
  - (i) Increase to the rated speed.
  - (j) Alteration to the terminal stopping device.
  - (k) Alteration to the standby or emergency power system.
  - (l) Alteration to firefighters' emergency operation.

- (m) Increase or decrease in rise.
  - (n) Addition of a hoistway entrance.
  - (o) Change in the type of service of an elevator.
  - (p) Changes in a freight elevator to allow passengers.
  - (q) Installation or replacement of the controller.
  - (r) Change in type of motion or operation control.
  - (s) Controller replacement for a hoistway door, car door, or car gate.
  - (t) Increase in working pressure by more than 5%.
  - (u) Change to or replacement of a plunger or cylinder.
  - (v) Replacement of an existing control valve with a valve of another type.
  - (w) Replacement of a hydraulic tank.
  - (x) Any alteration to a dumbwaiter, material lift, or platform lift.
- (3) Alteration activities regarding escalators and moving walks which require a permit application to be submitted to the Administrator are:
- (a) Change in angle of inclination or geometry of balustrades.
  - (b) Installation of skirt deflector device.
  - (c) Alteration to handrails or handrail system.
  - (d) Alteration to step system or treadway system.
  - (e) Alteration to combplates.
  - (f) Alterations that involve the trusses, girders, or supporting structures.
  - (g) Alteration to the step wheel tracks.
  - (h) Changes in rated load or speed.
  - (i) Any alteration to or addition of operating and or safety devices.
  - (j) Alteration to or addition to lighting, access, or electrical work.
  - (k) Alteration to entrance or egress.
  - (l) Installation or replacement of the controller.
- (4) Installation activities must commence within one (1) year from the date of receipt of the permit application at the office of the Administrator. Alteration activities must commence within 180 days from the date of receipt of the permit application at the office of the Administrator.

- (5) Prior to installation or alteration of the conveyance, the construction plans must be reviewed and documentation approved by the Administrator. If all documentation in subsection (1) is not complete and accurate, the application will not be approved and the applicant will be notified of the deficiencies. If approved, the permit issued by the Administrator shall be displayed in the conveyance control room or control space associated with the permitted conveyance.

### **Section 2-2-1-2 Notification**

- (1) The Conveyance Owner or licensed Conveyance Contractor must submit a notice to the Administrator on the form provided on the Administrator's website at least ten (10) days prior to commencing specific activities as follows:
  - (a) Work within elevator cabs except for those activities listed in Section 2-2-1-3 (1).
  - (b) Removal or demolition of a conveyance.
- (2) Following review of the notice described in (1) of this section, the Administrator shall determine if a permit application according to Section 2-2-1-1 must be submitted to the Administrator prior to commencing replacement activities.
- (3) The Conveyance Owner or licensed Conveyance Contractor must submit a notice to the Administrator on the form provided on the Administrator's website within seven (7) days after the completion of specific activities as follows:
  - (a) Replacement of the conveyance suspension means.
  - (b) Replacement of a control valve on a hydraulic system with a valve of the same type.

### **Section 2-2-1-3 Elevator Cab Interiors**

- (1) A Conveyance Owner may conduct the following type of work within the interior of an elevator cab without notification to or obtaining a permit from the Administrator:
  - (a) Change light lamps, not to include replacement of the luminaire (fixture).
  - (b) Repair or Refinish existing materials.
- (2) A Conveyance Owner or licensed Conveyance Contractor must submit a notice as described in Section 2-2-1-2 (1) if the work involves the replacement of flooring, laminate (not including the entire panel) or wall covering. Following review of the notice, the Administrator shall process the notice as described in Section 2-2-1-2 (2).
- (3) A licensed Conveyance Contractor must first obtain a permit from the Administrator as described in Section 2-2-1-1 for work within an elevator cab that involves the installation or alteration of cab components. A licensed Conveyance Mechanic must conduct this work or direct the execution of this work completed by a conveyance helper or apprentice to ensure the safety of the conveyance.

### **Section 2-2-2 Inspections and Tests**

#### **Section 2-2-2-1 Acceptance Inspection**

- (1) Following the installation or alteration of a conveyance, where a permit was obtained from the Administrator according to Section 2-2-1-1, the Conveyance Owner shall arrange for an Acceptance Inspection of the conveyance in accordance with ASME A17.1 – 2007, or if



applicable, in accordance with ASME A18.1. The responsibility for hiring a Conveyance Inspector to conduct Acceptance and Periodic Inspections resides with the Conveyance Owner. The Conveyance Owner may arrange for the inspection(s) by authorizing a general contractor or conveyance contractor to select, contract with, or hire a Conveyance Inspector who is not affiliated with the Conveyance Owner, general contractor, or conveyance contractor.

(2) The Conveyance Inspector shall:

- (a) Conduct the inspection using ASME A17.2 - 2007 as guidance.
- (b) Document results of the inspection on an inspection report form provided on the Administrator's website. All applicable portions of the inspection report shall be completed.
- (c) Submit the passing inspection report(s) to the Conveyance Owner

(3) The Conveyance Owner shall submit the passing inspection report(s) and the required fee(s) listed in Table 1 (Certificate of Operation) to the office of the Administrator.

Table 1. Processing fees for installation / alteration permits and inspection reports

Document	Processing Fee
Installation Permit Application	\$300.00
Alteration Permit Application	\$150.00
Certificate of Operation	\$30.00

- (4) Following the Administrator's determination that the conveyance is in compliance with the applicable standards listed in Section 2-6-1(1), and the conveyance is registered according to Section 2-1 of these regulations, the Administrator will issue the Certificate of Operation for the conveyance.
- (5) The Administrator may not issue the Certificate of Operation for the conveyance unless all deficiencies identified on during previous periodic inspections have been corrected.
- (6) The Administrator may issue a Temporary Certificate of Operation for a conveyance if the temporary operation of the conveyance by the public is necessary and imminent life safety issues have not been identified by a Conveyance Inspector. The Temporary Certificate of Operation shall be valid for a period as determined by the Administrator but shall not exceed 180 days from the date of issuance.
- (7) The Administrator may issue a Construction Certificate of Operation for a conveyance valid for a period of 90 days if the temporary operation of the conveyance is necessary to support building construction activities. The Construction Certificate of Operation can be renewed following the inspection by a Conveyance Inspector and approval of the inspection report by the Administrator. A Certificate of Operation for public use will be issued by the Administrator only after re-inspection and approval of the inspection report by the Administrator.

**Section 2-2-2-2 Periodic Inspections**

(1) The Conveyance Owner shall arrange for a Periodic Inspection of an existing conveyance on, at least, an annual frequency. The Periodic Inspection process and issuance of a Certification of Operation shall be in accordance with 2-2-2-1 (2) through (6).

- (2) A Private Conveyance Inspector shall obtain the permission of the Conveyance Owner to conduct the Periodic Inspection prior to commencing inspection activities.

### **Section 2-2-2-3 Tests**

- (1) Tests referred to as Category 1 and Category 5 in ASME A17.1 and ASME A18.1 shall be performed by a conveyance contractor on all existing conveyances, except for APM, at frequencies no greater than 1 year for Category 1 and no greater than 5 years for Category 5.
- (2) A Conveyance Inspector shall witness the performance of the following tests:
  - (a) Category 1 tests for conveyances listed in Section 1-5(1)(a) through (d) at least once every 5 years.
  - (b) Category 5 tests for conveyances listed in Section 1-5(1)(a) through (d).
  - (c) Category 1 tests for conveyances listed in Section 1-5(2).
- (3) The inspector that witnesses a conveyance test shall submit to the Administrator the results of the test on the appropriate conveyance test report form provided on the Administrator's website.
- (4) The Administrator may, in cooperation with an Approved AHJ, create an alternate or phase-in schedule for the implementation of the activities described in (2)(a) of this Section.

### **Section 2-2-3 Automated People Movers**

- (1) The Conveyance Contractor who intends to install an APM or perform an APM alteration shall conform to Section 2-2-1-1.
- (2) The Conveyance Owner or managing agent where the APM system is located shall arrange for inspection of verification testing of the installed or altered APM system by a Conveyance Inspector and shall submit to the Administrator:
  - (a) Report documenting System Verification completed at the factory.
  - (b) Report documenting on-site System Verification.
  - (c) Certificate of Substantial Completion.
- (3) A Conveyance Inspector shall witness the testing of the APM system as defined in ASCE 21 Part 4 Section 16.2 (Annual Internal Audit Responsibilities) on an annual frequency. The results of the testing shall be submitted to the Administrator.
- (4) Following the Administrator's determination that the documentation listed in (2) or (3) of this Section indicates that the conveyance conforms to standards listed in Section 2-6-1(1)(d), the Administrator will issue the Certificate of Operation for the APM system.

### **Section 2-3 Authority Having Jurisdiction**

- (1) In lieu of the Administrator regulating activities as described in Section 2-2, a municipality or county (an authority having jurisdiction [AHJ]), or any agent thereof, may enter into a memorandum of agreement (MOA) with the Administrator under which the AHJ will operate a local program of conveyance regulation of all conveyances in the territory of the AHJ, provided that the local program has standards that are equal to or greater than those adopted in these regulations.

- (2) If an MOA as described above is executed, the AHJ will become an Approved AHJ and will be responsible for enforcing the applicable provisions of these regulations.
- (3) The Approved AHJ will submit to the Administrator general information regarding new or existing conveyances as determined by the Administrator and listed in the MOA. This information will be reported annually no later than January 31st following the previous twelve-month reporting period.
- (4) The Approved AHJ may set fees and collect or contract the collection of these fees to offset the cost of conducting activities described in Section 2-2 for conveyances located within the Approved AHJ territory. Fee amounts will be determined by the Approved AHJ or agreed upon by the Approved AHJ and the contracted inspection organization. Notification of any adjustment of fees shall be made a minimum of thirty (30) days prior to the effective date of the change.
- (5) Inspections of public school conveyances in Approved AHJ territories must be conducted by the Approved AHJ or, with prior consent of the Administrator, by a Conveyance Inspector contracted by the public school district. The Certificate of Operation for a passing inspection will be issued by the Approved AHJ if the Approved AHJ conducts the inspection or by the Administrator if the inspection is conducted by a Conveyance Inspector hired by the public school district. The Approved AHJ must notify the public school district in writing that the inspection may be conducted by a Conveyance Inspector for the public school district, and a copy of this notification must immediately be submitted to the Administrator.

#### **Section 2-4 Shut-down of a Dangerous Conveyance**

- (1) If a Conveyance Inspector determines that a conveyance poses imminent danger to passengers or inspection/maintenance personnel or equipment, the Conveyance Inspector shall immediately notify the Administrator or the Approved AHJ and the Conveyance Owner of the condition of the conveyance and shall follow the procedures of the Approved AHJ or as listed in policy on the Administrator's website to shut down the dangerous conveyance.
- (2) If a Conveyance Mechanic determines that a conveyance poses imminent danger to passengers or inspection/maintenance personnel, the Conveyance Mechanic shall notify his/her employing Conveyance Contractor. Upon this notification, the Conveyance Contractor shall immediately notify the Administrator or the Approved AHJ and the Conveyance Owner of the condition of the conveyance and follow the procedures of the Approved AHJ or as listed in policy on the Administrator's website to shut down the dangerous conveyance.
- (3) A dangerous conveyance as described in this Section shall not be operated without the approval from the Administrator or Approved AHJ.

#### **Section 2-5 Accident Reporting**

- (1) Any accident involving a conveyance that caused or could have caused injury to a person should be investigated by the Conveyance Owner or managing agent to determine if maintenance or repairs are needed to ensure proper operation of the conveyance and that the conveyance is in compliance with these regulations.
- (2) Following any accident involving a conveyance that causes injury to any person, the Conveyance Owner or managing agent must:
  - (a) Conduct a preliminary investigation to determine whether the accident was the result of a component of the conveyance that malfunctioned or was not in compliance with these regulations, and

- (b) Report this information to the Administrator or Approved AHJ via a phone call, email or facsimile within 24 hours of the accident. This report must include:
  - (i) Caller's first and last name, caller's phone number, and organization.
  - (ii) Accident location with conveyance description, facility name, facility address, and conveyance registration number assigned by the Administrator.
  - (iii) Description of the accident and the preliminary determination of whether the accident was a result of a component of the conveyance that malfunctioned or is not in compliance with these regulations.
- (3) Based on results of the preliminary accident investigation, the following activities shall be conducted:
  - (a) If the accident is not the result of the malfunction of a component of the conveyance and the conveyance is in compliance with these regulations, the Conveyance Owner may make the conveyance accessible to the public, or
  - (b) If the accident is the result of component of the conveyance that malfunctioned or is not in compliance with these regulations, the Administrator or Approved AHJ will revoke the Certificate of Operation for the conveyance and the Conveyance Owner must:
    - (i) Immediately shut down the conveyance and arrange for an inspection of the conveyance to verify the cause of the accident, prior to a Conveyance Contractor performing any modifications or repairs to the conveyance.
    - (ii) Arrange for a full Inspection of the conveyance following any modifications or repairs.
    - (iii) Complete and submit to the Administrator or Approved AHJ an accident investigation report provided on the Administrator's website. This report shall include a description of the actions taken to investigate the cause of the accident, corrective actions taken to repair and test the performance of the conveyance, and any inspection reports.
    - (iv) The conveyance shall not be made accessible to the public without a current Certificate of Operation issued by the Administrator or Approved AHJ.
- (4) Following review of the preliminary investigation information in (2) of this Section, the Administrator or Approved AHJ will notify the Conveyance Owner or Conveyance Contractor if the Certificate of Operation will be revoked and activities listed in (3)(b) of this Section are to be completed.
- (5) As the Approved AHJ becomes aware of an accident associated with a conveyance, the Approved AHJ will immediately report this accident to the Administrator.

## **Section 2-6 Adoption of Nationally Recognized Safety Standards**

### **Section 2-6-1 Standard Adoption**

- (1) Within this regulation, the Administrator adopts standards and codes as listed below:
  - (a) ASME A17.1 - 2007
  - (b) ASME A18.1 - 2005
  - (c) ASME A17.3 - 2005

- (d) ASCE 21 Parts 1, 2, 3, and 4
- (2) Nothing in these regulations prohibits a local jurisdiction from adopting and enforcing standards which are more stringent than the minimum requirements included in these regulations.
- (3) The Approved AHJ shall adopt the versions of applicable standards listed in (1) of this Section by December 31, 2010.
- (4) Following the initial adoption of standards described in (1) of this Section, the Approved AHJ will remain current in adoption of future standard versions as they are adopted by the Administrator within the timeframe stated in the MOA or as determined by the Administrator.
- (5) The Administrator in cooperation with the Advisory Board shall review the latest edition of a standard listed in (1) of this Section and shall determine whether all or any portion of the edition of the standard will be modified or deleted.
- (6) The Administrator in cooperation with the Advisory Board shall review addendums and supplements to the most recently adopted standard and shall determine whether to adopt the addendum or supplement.

#### **Section 2-6-2 Implementation of Adopted Standards in Existing Conveyances**

- (1) All conveyances installed prior to July 1, 2008 are exempt from complying with ASME A17.3 - 2005 unless one of the following conditions exists:
  - (a) Substantial Alteration of a conveyance, or
  - (b) An elevator presents a Material Risk.

Any alteration caused by the conditions listed above shall conform to ASME A17.1 - 2007.

- (2) Material Risk related to Firefighters' Service is present except if any of the following conditions apply:
  - (a) The elevator complies with ASME A17.1 - 1981 Rules 211.1 and 211.3, or
  - (b) The elevator travels less than 75 feet above or below the emergency personnel access, or
  - (c) The building is equipped with an automatic sprinkling system according to the NFPA 13.

Any elevator that does not meet one or more of the conditions listed above must comply with Firefighters' Service requirements as described in the currently adopted version of ASME A17.1 by January 1, 2015. An AHJ may require and may enforce more stringent standards than these minimum requirements regarding Firefighters' Service, including full compliance with ASME A17.3. Contact the AHJ for local requirements and enforcement.

- (3) Regarding Door Restrictors, the following shall apply:
  - (a) Door Restrictors shall be installed and operational by January 1, 2012 on all elevators installed on or after January 1, 1990 and before January 1, 2008.
  - (b) Door Restrictors shall be installed and operational prior to the next issuance of the Certificate of Operation on all elevators installed on or after January 1, 2008.
  - (c) Following review of additional information regarding Door Restrictors, the Administrator will determine whether Door Restrictors shall be required on elevators installed prior to

January 1, 1990.

- (4) The Administrator will allow continued operation after January 1, 2012 of a Hydraulic Elevator that has a hydraulic cylinder buried in the ground and is not provided with a safety bulkhead (typically installed prior to 1973) if the Conveyance Owner completes one of the following actions in conformance with ASME A17.3 - 2005:
  - (a) The hydraulic cylinder shall be provided with a safety bulkhead, or
  - (b) The elevator shall be provided with car safeties conforming to ASME A17.1 Section 3.17.1, and guide rails, guide-rail supports, and fastenings conforming to ASME A17.1 Section 3.23.1, or
  - (c) The elevator shall be provided with a plunger gripper that shall grip the plunger when the applicable maximum governor tripping speed is achieved.
- (5) The Administrator will allow continued operation of a Private Residence Conveyance installed in any building other than in a single-family residence if the following conditions are met:
  - (a) The conveyance was installed prior to January 1, 2008.
  - (b) The conveyance is registered with the Administrator on a form provided on the Administrator's website.
  - (c) The conveyance must conform to all alteration, inspection, and testing requirements as determined by the Administrator.
- (6) The Administrator will only require a code data plate, as required by ASME A17.1, on an existing conveyance if the conveyance was installed on or after July 1, 1997. For conveyances installed prior to July 1, 1997, the version of ASME A17.1 that will be referenced for inspection purposes will be one of the following:
  - (a) The version in effect, or adopted by a local jurisdiction, on the date of installation.
  - (b) The version listed on an existing code data plate.
- (7) The standards listed in Section 2-6-1(1) may be examined by contacting the Conveyance Section Program Manager at the office of the Administrator located at 633 17th Street, Suite 500 in Denver, Colorado. These standards or materials incorporated in these standards may be examined at any state publications depository library.

### **Section 2-6-3 Implementation of Adopted Standards in New and Altered Conveyances**

- (1) The Administrator will not require that a sump pump be installed in the hoistway pit of a Hydraulic Elevator if:
  - (a) The total travel of the elevator is less than 25 feet, and
  - (b) The hoistway pit is less than 67 inches deep
- (2) After January 1, 2008, the Administrator shall not allow the installation of a Private Residence Conveyance in any commercial setting where the public or multiple private residences have access to the conveyance.

### **Section 2-6-4 Alternate Materials and Methods Request**

- (1) The Administrator or Approved AHJ may grant the use of alternate materials and methods on a case-specific basis, for the implementation requirements of ASME A17.1 - 2007, ASME A18.1 - 2005, ASME A17.3 - 2005, or ASCE 21.
- (2) Requests for the use of alternate materials and methods where a conveyance is not located within the area of an Approved AHJ must be submitted to the Administrator and be completed on the alternate materials and methods request form provided on the Administrator's website. This request will not be reviewed unless the appropriate form and required documentation are complete.
- (3) A submitted Alternate Materials and Methods Request shall not relieve a person from complying with the applicable standards adopted in these regulations unless the Administrator or the Approved AHJ expressly approve the use of alternate materials and methods.

## **ARTICLE 3 LICENSING**

### **Section 3-1 Licensing Qualifications**

This section describes the requirements for the licensing of conveyance contractors, Conveyance Mechanics and Conveyance Inspectors. This license allows the licensee to perform installation, alteration, replacement, maintenance, removal, dismantling, or inspection activities of conveyances as identified in Section 1-5 and as listed on the license. The Administrator may request documentation in addition to that described in the following sections to verify the accuracy of information provided with a license application.

#### **Section 3-1-1 Conveyance Mechanic**

- (1) The Administrator will consider issuing a Conveyance Mechanic license to the applicant if the applicant has provided documentation required in this Section. The Conveyance Mechanic license will indicate the type of conveyance on which the licensee is allowed to conduct work per these regulations. The types of Conveyance Mechanic licenses are as follows:
  - (a) Type 1: All conveyances with the exception of APM, which would include elevators, escalators, personnel hoists, moving walkways, platform lifts and dumbwaiters, as described in ASME A17.1 and A18.1.
  - (b) Type 2: Platform lifts only, as described in ASME A18.1.
  - (c) Type 3: APM as described in ASCE 21.
  - (d) Type 4: All conveyances listed in (1)(a) and (c) of this Section.
  - (e) Type 5: All conveyances listed in (1)(b) and (c) of this Section.
- (2) A person applying for a Conveyance Mechanic license must submit to the Administrator a completed Conveyance Mechanic license application provided on the Administrator's website and documentation that, as determined by the Administrator, indicates the applicant is qualified under one of the following scenarios:
  - (a) The applicant submits documentation that proves that the applicant has successfully completed a Conveyance Mechanic training program. This program will be subject to audit by the Administrator. Evaluation criteria for Administrator audit may include, but is not limited to, review of course materials, required classroom and field hours, classroom activities, and test materials and procedures. Based on evaluation of the Conveyance Mechanic license training curriculum, the Administrator may set limitations on the license

issued. To be approved, the program must:

- (i) Be registered with the United States Department of Labor Office of Apprenticeship (USDOL) under specific apprentice occupation categories assigned by the USDOL to license types listed in (1) of this Section, and must include classroom and field training according to the USDOL requirements on the actual equipment listed in the license types, or
  - (ii) Be approved by the Administrator. Applicants seeking licensure under programs approved solely by the Administrator must submit to the Administrator an executed affidavit provided by the Administrator, signed by the applicant, stating that during the applicant's participation in the approved program, the applicant's work experience consisted of at least 1,700 hours per year performing activities listed in the work process schedule attached to the affidavit.
- (b) In lieu of qualifying pursuant to (2)(a) in this Section, the applicant may qualify if the applicant submits to the Administrator one of the following:
- (i) Documentation that the applicant holds a current and valid license from another state whose standards, as determined by the Administrator, meet or exceed those of these regulations. This documentation will consist of:
    - (A) A copy of the license; and,
    - (B) Contact name, phone number and the issuing department at the state where the license was obtained.
  - (ii) Documentation that the applicant has obtained both of the following:
    - (A) Three (3) years of work experience as a Conveyance Mechanic on non-residential conveyances without supervision. One year of work experience will equal 1,700 hours. Documentation of work experience will consist of:
      - (I) A statement on the employer's letterhead and signed by the personnel Administrator or other person of authority, that the condition in (A) is true; and,
      - (II) Personnel records that indicate the timeframe and listing of hours for completion of the experience described in (A); or
      - (III) An affidavit, provided by the Administrator, signed by the applicant and stating that the work experience indicated in personnel records submitted consists of unsupervised mechanic activities listed in the work process schedule attached to the affidavit.
    - (B) A passing score on an examination provided by the Administrator, or a Conveyance Contractor thereof, on the codes and standards that relate to the type of Conveyance Mechanic license applied for, as described in (1) of this Section.
- (3) The Administrator may add to the issued license an exclusion for performing work on specific conveyance equipment if the applicant has not provided to the Administrator proof of adequate training on this equipment as included in one of the licensing methods listed in (2) of this Section.



- (4) A person who obtains a Conveyance Mechanic license shall also complete eight (8) hours of continuing education that has been approved by the Administrator, every two (2) years.
- (5) If a Type 1 or 4 licensee is approved to perform work on escalators and moving walkways, the required continuing education shall also include training on this equipment in order to continue to be qualified to perform work on this equipment.
- (6) Following review of the application, the Administrator will notify the applicant of the approval or disapproval of the application. If approved, the notification will include the Conveyance Mechanic license number, the type of conveyance on which the Conveyance Mechanic may perform work, a license card, and a payment receipt. If not approved, the notification will include a description of the deficiencies in the application.
- (7) The Conveyance Mechanic license issued by the Administrator shall be valid for one (1) year. The Administrator may renew a license, provided the applicant submits the following:
  - (a) Completed Conveyance Mechanic license application form.
  - (b) License renewal fee.
  - (c) Copy of certification indicating that the applicant completed continuing education required in this Section.

### **Section 3-1-2 Emergency and Temporary Conveyance Mechanic**

- (1) When an emergency exists, as defined in § 9-5.5-108 (2) C.R.S., the Administrator may issue an emergency Conveyance Mechanic license. This license will be issued to a person who, based on the judgment of a Conveyance Contractor, has acceptable documented experience and education to perform work on specific types of conveyances identified in Section 1-5. Within five (5) business days after commencing work, the applicant will complete and submit the Conveyance Mechanic license application to the Administrator. There will be no license fee for an emergency Conveyance Mechanic license.
- (2) Upon notification to the Administrator from a Conveyance Contractor that there are no mechanics available to perform conveyance work, the Administrator may issue a temporary Conveyance Mechanic license. This license will be issued to a person who is enrolled in and progressing through a mechanic training program as described in Section 3-1-1 (2)(a), and based on the judgment of a Conveyance Contractor, has acceptable documented experience and education to perform work on specific types of conveyances identified in Section 3-1-1(1). Prior to commencing work, the Conveyance Contractor who will employ the temporary Conveyance Mechanic must submit the following documentation to the Administrator at least 5 working days prior to the first day of work:
  - (a) A completed temporary Conveyance Mechanic license application provided on the Administrator's website.
  - (b) The license fee.
- (3) Following review of the application, the Administrator will notify the Conveyance Contractor and temporary Conveyance Mechanic applicant of the approval or disapproval of the application. If approved, the notification will include the temporary Conveyance Mechanic license number and the type of conveyance on which the temporary Conveyance Mechanic may perform work. If not approved, the notification will describe the deficiencies in the application.
- (4) The emergency Conveyance Mechanic license will be valid for sixty (60) days and the temporary

Conveyance Mechanic license will be valid for thirty (30) days. The Administrator may renew a license, provided the Conveyance Contractor submits the license fee and notification to the Administrator that renewal is requested for a license issued the prior month. This documentation may include multiple license renewal requests.

### **Section 3-1-3 Conveyance Contractor**

- (1) The Administrator will consider issuing a Conveyance Contractor license to a company if the applicant submits to the Administrator a completed Conveyance Contractor license application form provided on the Administrator's website, and:
  - (a) Documentation that one of the following conditions exists:
    - (i) The applicant employs, at a minimum, one (1) Conveyance Mechanic licensed with the Administrator. The employment of temporary or emergency Conveyance Mechanics does not satisfy this requirement. This documentation must consist of a statement on the employer's letterhead and signed by the personnel Administrator or other person of authority, that this requirement has been met.
    - (ii) The applicant holds a current and valid license from another state whose standards are substantially similar to those of these regulations. This documentation will consist of:
      - (A) A copy of the license; and,
      - (B) The current contact name, phone number and the issuing department at the state where the license was obtained.
  - (b) A certificate of insurance or insurance policy indicating the applying company possesses insurance coverage according to § 9-5.5-115 (1) C.R.S.
- (2) The Conveyance Contractor license shall be valid for one (1) year. The Administrator may renew a license, provided the company submits the completed Conveyance Contractor license application, documentation as described in (1) of this Section, and the license renewal fee.

### **Section 3-1-4 Conveyance Inspector**

- (1) The Administrator will consider issuing a Conveyance Inspector license to the applicant if the applicant has provided documentation required in this Section. The Conveyance Inspector license will indicate the type of conveyance for which the licensee is allowed to inspect per these regulations. The types of Conveyance Inspector licenses are as follows:
  - (a) Type 1: All conveyances with the exception of APM, which would include elevators, escalators, personnel hoists, moving walkways, platform lifts, stairway chairlifts and dumbwaiters, as described in ASME A17.1 and A18.1.
  - (b) Type 2: APM as defined in ASCE 21.
  - (c) Type 3: All conveyances listed in (a) and (b) of this Section.
- (2) A person applying for a Conveyance Inspector license must submit to the Administrator a completed Conveyance Inspector license application and documentation that, as determined by the Administrator, indicates the applicant is qualified under one of the following scenarios:
  - (a) AHJ Conveyance Inspector, AHJ-appointed Conveyance Inspector, or Private Conveyance

Inspector.

- (i) To obtain a Type 1 Conveyance Inspector license, the applicant must submit to the Administrator documentation that, as determined by the Administrator, proves:
    - (A) The applicant is certified to inspect conveyances by a nationally recognized conveyance association, which will consist of a copy of the front and back of a current ASME QEI-1 certification card from the issuing association, or
    - (B) The applicant qualifies as an Elevator Personnel as defined in ASME A17.1 and the applicant has been approved to take an exam for ASME QEI-1 certification by a nationally recognized conveyance association. The applicant shall attend the first available exam offered by a nationally recognized conveyance association and obtain ASME QEI-1 certification within 6 (six) months of licensure. If the applicant fails the exam, the Administrator may suspend the applicant's license until proof of ASME QEI-1 certification is submitted to the Administrator.
  - (ii) To obtain a Type 2 Conveyance Inspector license, the applicant will submit to the Administrator documentation that, as determined by the Administrator, indicates the applicant:
    - (A) Possesses a current Professional Engineer license, or
    - (B) Has, at a minimum, three (3) years of experience participating in APM inspections and audits.
- (b) AHJ Conveyance Inspector or AHJ-appointed Conveyance Inspector.
- (i) The applicant submits documentation to the Administrator that the applicant was employed, appointed or designated by an Approved AHJ as a Conveyance Inspector prior to January 1, 2008. This documentation will consist of a statement on the Approved AHJ's letterhead and signed by the personnel Administrator or other person of authority, attesting to the above fact. The licensee who is issued a Conveyance Inspector license by qualifications in this paragraph will expire on July 1, 2010, unless the applicant qualifies to be licensed according to (2)(a)(i)(A) of this Section; or, upon the applicant terminating employment with the Approved AHJ, or
  - (ii) The applicant submits to the Administrator:
    - (A) Documentation the applicant intends to obtain QEI-1 certification within 1 (one) year from licensure, and
    - (B) Agrees to complete at least eight (8) weeks of conveyance inspection activities under the direct supervision of a Conveyance Inspector prior to conducting conveyance inspection activities without direct supervision. During this supervised period, the licensee must be trained on the inspection of any type of conveyance which the licensee will encounter in the inspection territory. Documentation must be submitted to and approved by the Administrator indicating that the applicant has received the required supervision prior to conducting unsupervised conveyance inspection activities.

- (3) If a licensee qualifies by (2)(a)(i)(B) or (2)(b) of this Section, and the licensee fails to obtain ASME QEI-1 certification as required, the Administrator may suspend or revoke the licensee's Conveyance Inspector license.
- (4) Any Private Conveyance Inspector or AHJ-appointed Conveyance Inspector applicant shall also submit to the Administrator a certificate of insurance or insurance policy indicating the applicant possesses insurance coverage according to § 9-5.5-115 (2) C.R.S.
- (5) An AHJ Conveyance Inspector applicant is exempt from the requirement to provide insurance, pursuant to § 9-5.5-115 (2) C.R.S., while performing Approved AHJ official duties.
- (6) If a licensee receives a Type 1 license and will be conducting inspection activities on escalators or moving walks, the licensee must complete at least eight (8) hours of inspection training on this equipment prior to conducting unsupervised inspection activities on this equipment. This training must consist of direct supervision under a Conveyance Inspector who has at least eight (8) hours of experience inspecting, installing or maintaining this type of equipment. This requirement shall not apply to a licensee who has received training on this type of equipment through an Administrator-approved training program.
- (7) The Conveyance Inspector license will be valid for one (1) year. The Administrator may renew a Conveyance Inspector license, provided the applicant submits the appropriate License Application form, documentation as described in (2) of this Section, and the license renewal fee.

#### **ARTICLE 4 ENFORCEMENT**

If the Administrator or Approved AHJ identifies any violation by any person of these regulations and standards adopted therein, the Administrator shall take enforcement action against the offender pursuant to section § 8-20-104 C.R.S. Assessed penalties may include a fine of up to \$1,000 per violation per each day of violation or suspension or revocation of a license.

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#### **Editor's Notes**

#### **History**

New rule emer.rule eff. 04/03/2008.

Entire rule emer. rule eff. 07/02/2008; expired 10/02/2008.

Entire rule eff. 01/01/2009.

Section 3-1-1 emer.rule eff. 06/11/2009.

Section 3-1-1 (3)-(7) emer.rule eff. 09/11/2009; expired eff. 12/11/2009.

Entire rule eff. 01/01/2010.

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