SECTION RBC310 - ELEVATOR AND ESCALATOR SAFETY CODE

RBC310.1 SHORT TITLE. This section will be known and cited as the Elevator and Escalator Safety Code.

RBC310.2 SCOPE. The Elevator and Escalator Safety Code shall regulate the design, construction, installation, operation, inspection, testing, maintenance, alteration, and repair of new and existing elevators, dumbwaiters, escalators, moving walks, material lifts, and dumbwaiters with automatic transfer devices.

RBC310.3 CODES ADOPTED BY REFERENCE. There is hereby adopted by reference the Safety Code for Elevators and Escalators, ASME A17.1 ~~– 2004~~ 2007, including Table N-1 of Appendix N and all supplements thereto~~,~~; ~~and~~ the Safety Code for Existing Elevators and Escalators, ASME A17.3 ~~– 2002~~2005 and all supplements thereto, and the ASMEA18.1 2005 Safety Standard for Platform Lifts and Stairway Chairlifts of the American Society of Mechanical Engineers, United Engineering Center, ~~345 East 47th Street~~Three Park Avenue, New York, New York, 1001~~6~~-5990~~7~~. Three copies of these Codes are now filed in the office of the Regional Building Official and may be inspected during regular business hours. The above Codes are being adopted as if set out at length.

RBC310.4 ADDITIONS AND MODIFICATIONS. The adopted Codes are subject to the following additions and modifications:

RBC310.4.1 ASME A17.1 ~~–2004~~2007, Section 2.~~7.6~~2.2.5. ~~Machine Rooms and Spaces.~~ ~~Delete "Elevator machine and" from the first sentence and add the following to the end of the paragraph: "Elevator machine rooms are permitted to be located in the hoistway or the pit."~~A sump pump is not required to be installed in the hoistway pit of a Hydraulic Elevator if:

(a) The total travel of the elevator is less than 25 feet; and

~~**RBC310.4.1**~~ (b) The hoistway pit is less than 67 inches deep.

RBC310.4.2 ASME A17.1 ~~–2004~~ 2007~~,~~; Section 5.8. Shipboard Elevators. Delete.

RBC310.4.3 ASME A17.1 ~~–2004~~2007~~;~~, Section 5.9. Mine Elevators. Delete.

RBC310.4.4 ASME A17.1 ~~–2004~~ 2007~~;~~, Section 5.10. Elevators Used for Construction. Delete.

~~**RBC310.4.5 ASME A17.1 2004; Section 8.10.1.1.3.** Delete.~~

~~**RBC310.4.6 ASME A17.1 2004; Section 8.11.1.1. Persons Authorized to Make Periodic Inspections and Tests.** Delete.~~

~~RBC310.4.7~~ RBC310.4.5 **ASME A17.1 ~~–2004~~ 2007, Section 8.11.1.1.2. Periodic Tests.**

Delete subsection (a) and replaced with the following:

(a) The tests referred to as Category 1 and Category 5 in Table N-1, of Appendix N, of ASME A17.1 2007 and A18.1 2005, shall be performed by a conveyance contractor on all existing conveyances at frequencies no greater than 1 year for Category 1 and 5 years for Category 5. A conveyance Inspector shall witness the performance of the following test: Category 1 test for (1) Elevator (2) Platform Lift (3) Personnel Hoist and (4) Dumbwaiter at least every 5 years.~~.~~

Delete subsection (b) and replace with the following:

(b) The owner or the owners authorized agent shall have all of the tests required by Sections 8.11.2, 8.11.3, 8.11.4, and 8.11.5 conducted by a licensed elevator contractor. A written ~~report~~ document shall be provided to the Building Department within thirty (30) calendar days with the results of such tests.

Exception: Escalators and Moving Walks shall have the Category 1 Periodic Test as per Appendix N, Table N-1, witnessed by the Building Department or its authorized agent.

~~RBC310.4.8~~ RBC310.4.6 **ASME A17.1 ~~–2004~~ 2007, Section 8.11.1.3. Periodic Inspection and Test Frequency.**

The frequency of periodic inspections and tests shall be in accordance with Appendix N, Table N-1.

RBC310.4.7 ASME A17.1 ~~–2004~~ 2007, Section 8.~~11.3.3~~6.5.15. Periodic Test Requirements: Category 3. Delete.

~~RBC310.4.9~~ RBC310.4.8 **ASME A17.1 2007, Section 8.11.5.8.** Delete.

RBC310.4.9 ASME A17.1 2007, Section 8.11.5.13. Delete.

RBC310.4.10 ASME A17.1 ~~–2004~~2007, Appendix N Table N-1. Delete the following items from th~~is~~e Table:

8.11.5.2. Private Residence Elevators.

8.11.5.8. Shipboard Elevators.

8.11.5.13. Elevators Used for Construction.

RBC310.4.11 ASME A17.3 ~~– 2002~~2005, Section 1.2. Application of Code: Add the following exceptions after the second paragraph:

Exceptions:

(1) All conveyances prior to July 1, 2008, are exempt from complying with ASME A17.3 2005, unless the following conditions exist:

(a) Substantial Alteration of a conveyance; or

(b) An elevator presents a Material Risk. A risk to public safety as determined by the Authority Having Jurisdiction.

(2) Material Risk related to Firefighters' Service is not present except if any of the following conditions exist:

(a) The elevator complies with ASME A17.1 2007, 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 National Fire Protection Association 13. Any elevator that does not meet any of the conditions listed above must comply with the Firefighters' Service requirements as described in the currently adopted version of ASME A17.1 2007, by January 1, 2015.

(3) Door Restrictors.

(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) Upon review of additional information, the Authority Having Jurisdiction may determine whether Door Restrictors shall b required on any elevator installed prior to January 1, 1990.

(4) A Hydraulic Elevator that has a hydraulic cylinder buried in the ground and is not provided with a safety bulkhead, will be allowed to continue operation after January 1, 2012, 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 in accordance with ASME A17.1 2007, Section 4.3.3; or

(b) The elevator shall be provided with car safeties conforming to ASME A17.1 2007, Section 3.17.1, and guide rails, guide rail supports, and fastenings conforming to ASME A17.1 2007, 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 per ASME A17.1 2007, Section 3.17.3.~~2~~

RBC310.4.11 .2.2. Access to Machine Rooms and Machinery Spaces. Delete and replace with the following:

a. General Requirements. A permanent, safe, and convenient means of access to elevator machine rooms and overhead machinery spaces shall be provided for authorized persons.

b. Access Across Roofs. Where passage over roofs is necessary to reach the means of access to machine rooms or machinery spaces, the following shall be provided:

(1) A stairway with a swing door and platform at the top level, conforming to the requirements of Subsection c. below, shall be provided from the top floor of the building to the roof level.

(2) Where the passage is over a sloping roof having a slope exceeding 3 units vertical in 12 units horizontal (25 percent), an unobstructed, permanent, and substantial walkway not less than 24 inches (609.6 mm) wide, equipped on at least one side with a handrail not less than 42 inches (1,066.8 mm) high, shall be provided from the building exit door at the roof level to the means of access to the machine room or machinery spaces. Railings shall conform to the requirements of ANSI A12.1

c. Requirements for Means of Access. The means of access to machine rooms, machinery spaces and different floor levels in machine rooms, shall conform to the following.

(1) A permanent fixed noncombustible ladder or stair shall be provided where the floor of the machine room or the machinery space above or below the floor or roof from which the means of access leads, or where the distance between the machine room floor levels, is more than 8 inches (203.2 mm).

(2) A permanent noncombustible stair shall be provided where the floor of the machine room or the machinery space above or below the floor or roof from which the means of access leads, or where the distance between the machine room floor levels, is 36 inches (914.4 mm) or more. Vertical ladders with handgrips may be used in lieu of stairs for access from building floors or machine rooms to machinery spaces containing overhead sheaves, secondary and deflecting sheaves, governors and auxiliary equipment not including controllers and motor generators.

(3) Permanent fixed noncombustible ladders shall conform to the requirements of ANSI A14.3.

(4) Permanent noncombustible stairs shall have a minimum angle of 60 degrees from the horizontal, and shall be equipped with noncombustible handrails on all open sides.

(5) Permanent non combustible platform or floor shall be provided at the top of the stairs with noncombustible railings on each open side. The size of the platform shall be sufficient to permit the full swing of the door plus 24 inches (609.6 mm) from the top of the riser to the swing line of the door. The floor of the platform shall be at the level or not more than 8 inches (203.2 mm) below the level of the access door sill. Where the door swings inward, the width of the platform shall be not less than 30 inches (762 mm), and the length not less than the width of the door.

(6) Handrails and railings shall conform to the requirements of ANSI A12.1.

d. Access doors and openings.

~~(1) Access doors to machine rooms and overhead machinery spaces shall:~~

~~(a) For machine rooms, be of a minimum width of 30 inches (762 mm) and a minimum height of 6 feet (1,828.8 mm); and for other spaces be of a minimum width and height of 30 inches (762 mm);~~

~~(b) Be self-closing and self-locking;~~

~~(c) Be provided with a spring-type lock arranged to permit the doors to be opened from the inside without a key;~~

~~(d) Be kept closed and locked.~~

~~(2) Doors are not required at openings in machine room floors for access to deflecting and secondary sheave spaces provided the access opening is provided on all four sides with a railing not less than 42 inches (1,066.8 mm) in height, one side of which is arranged to slide or swing to provide access to the ladder or stairs leading to the secondary sheave space. Trap doors, where provided, shall have railing or guard wings on all open sides.~~

~~(3) Access openings in elevator hoistway enclosures where complete bodily entry is not necessary for maintenance and inspection of components shall:~~

~~(a) Be of adequate size and located to permit the required maintenance and inspection;~~

~~(b) Be of maximum width and height of 24 inches (609.6 mm);~~

~~(c) Be provided with doors which shall be kept closed and locked.~~

~~(4) Keys to unlock the access doors to machine rooms shall be kept on the premises in a location readily accessible to authorized personnel, but not where they are accessible to the general public. The keys may be the same as those used for the pit access door. Keys to the elevator company's lock box shall be provided to the Building Department.~~

~~**e. Stop Switch in Overhead Machinery Space in the Hoistway.**~~

~~A stop switch conforming to the requirements of 2.26.2.7, shall be provided for each elevator in the overhead machinery space in the hoistway, adjacent to the lock jamb side of the door.~~

RBC310.4.12 ASME A17.3 ~~- 2002~~2005, Section ~~3.11.3~~1.4. Definitions. ~~Delete and Replace with the following:~~Add the following definitions:

Material Risk. A risk to public safety as determined by the Authority Having Jurisdiction.

Substantial Alteration. An alteration that includes:

(a) The change in type of service of an elevator; or

(b) The change in type of operation control or motion control on an elevator; or

~~**RBC310.4.12**~~ (c) The replacement of a controller in conjunction with another alteration on an electric elevator.

~~**3.11.3.** Elevators in buildings having floors used for human occupancy located more than 75 feet (23 m) above the **lowest level of fire department a**ccess shall conform with the requirements of ASME A17.1-1987 Rules 211.3a through 211.8. (As per Appendix C).~~