

A17 Standards Committee Interpretations

	Page
Interpretations Approved at the April 2000 A17 Standards Committee Meeting	2
Interpretations Approved at the June 2000 A17 Standards Committee Meeting	14
Interpretations Approved at the September 2000 A17 Standards Committee Meeting	20
Interpretations Approved at the January 2001 A17 Standards Committee Meeting	24
Interpretations Approved at the April 2001 A17 Standards Committee Meeting	27
Interpretations Approved at the June 2001 A17 Standards Committee Meeting	37
Interpretations Approved at the September 2001 A17 Standards Committee Meeting	48
Interpretations Approved at the January 2002 A17 Standards Committee Meeting	52
Interpretations Approved at the April 2002 A17 Standards Committee Meeting	59
Interpretations Approved at the June 2002 A17 Standards Committee Meeting	75
Interpretations Approved at the September 2002 A17 Standards Committee Meeting	85
Interpretations Approved at the January 2003 A17 Standards Committee Meeting	93
Interpretations Approved at the May 2003 A17 Standards Committee Meeting	98
Interpretations Approved at the October 2003 A17 Standards Committee Meeting	106
Interpretations Approved at the January 2004 A17 Standards Committee Meeting	121
Interpretations Approved at the May 2004 A17 Standards Committee Meeting	130
Interpretations Approved at the September 2004 A17 Standards Committee Meeting	141
Interpretations Approved at the January 2005 A17 Standards Committee Meeting	147

Each interpretation applies to the edition and supplements listed for that inquiry. Many of the Rules on which the interpretations have been made have been revised in later editions or supplements. Where such revisions have been made, the interpretations may no longer be applicable to the revised requirement.

ASME procedures provide for reconsideration of these interpretations when or if additional information is available which might affect any interpretation.

Further, persons aggrieved by any interpretation may appeal to the cognizant ASME committee or subcommittee. ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

Interpretations Approved at the April 2000 A17 Standards Committee Meeting

Inquiry 99-05

Subject: Rule 112.5
Reopening Device for Power Operated Car Doors or Gates

Edition: A17.1-1993

Question:

Electronic door edge devices were installed on horizontal sliding passenger doors that are 9'-6" high. The "active zone" of the device measures from floor level to approximately 6'-6", with a 3'-0" portion of the door not protected. Is the intent of the rule to protect the full height of a closing door, or only the 6'-6" length protected by most standard door detection devices?

Answer:

The first paragraph of Inquiry 85-43 addresses the rationale of the Rule, which is unchanged in the 1993 edition.

A17 Committee Approval: April 5,2000

Inquiry 99-17

Subject: Part XX
Inclined Stairway Chairlifts and Inclined and Vertical Wheelchair Lifts

Edition: A17.1-1996

Question:

Rule 2000.3c requires that lifts conform to Section 1804. Rule 2000.8 requires conformance to rule 1803.5. Are lifts installed per Part XX required to comply with Rule 1803.6?

Answer:

No.

A17 Committee Approval: April 5,2000

Inquiry 99-19

Subject: Rule 1206.3a
Refastening Periods

Edition: A17.1-1996

Question:

- 1) Do the requirements of Rule 1206.3a apply to dumbwaiters?
- 2) Do the refastening periods apply when wedge rope sockets (Rule 212.9e) are utilized?

Answer:

- 1) No. Rule 1206.3a limits the application of this requirement to power elevators. See Section 3, Definitions.
- 2) Yes. Wedge sockets are included in the other type of fastenings.

A17 Committee Approval: April 5,2000

Inquiry 99-31

Subject: Rules 1203. 8h
Emergency Operation and Signaling Devices

Edition: ASME A17.1 - 1996

Questions:

The present Rule 1203.8h(1), which addresses alterations made to car emergency signaling devices, (i.e. alarm bell, communication system, etc.), appears to require complete conformance with requirements of Section 211. However, the present requirements of Rule 1203.8h(2), relating to alterations to standby power, and Rule 1203.8h(3), relating to alterations to Firefighters' Service, only require compliance with Rule 211.2 and 211.3 through 211.8 respectively. Is this a correct understanding of the requirement? If no, please explain. If the response is yes to my question, then is the requirement of Rule 1203.8h(1) not excessive for adding an alarm bell or telephone?

Answer:

The A17.1-1996 edition requires conformance with Section 211.

A17 Committee Approval: April 5,2000

Inquiry 99-36

Subject: Rule 306.6, Electrical Equipment and Wiring
Paragraph 3.1, Construction

Edition: A17.1-1993 through A17.1b-1995
A17.5/B44.1 - 1991

Questions:

If all of the electrical components used on a hydraulic controller are certified (UL/CSA) to the requirements of the pertinent Standards covering such components, does the hydraulic controller, in its entirety, also have to be specifically evaluated for the intended use ("labeled")?

Answer:

See Inquiry 96-24, which is applicable to the hydraulic requirements as well.

A17 Committee Approval: April 5,2000

Inquiry 99-41

Subject: Rule 101.3b(1)
Access Across Roofs

Edition: ASME A17.1 - 1996

Question:

Rule 101.3b(1) appears to eliminate the use of horizontal type roof access doors (trap doors, etc.). However, when I review the text of this Rule in the handbook, the implication is that horizontal type roof access doors are not completely eliminated. My question is, are horizontal type roof access doors allowed? If so, under what circumstance and what are the requirements to follow?

Answer:

- 1) Yes.
- 2) Must be in compliance with the requirements of Rule 101.3.

A17 Committee Approval: April 5,2000

Inquiry 99-42

Subject: Rule 805.4 and Item 1.12.1
Handrail-Speed Monitoring Device

Edition: ASME A17.1 – 1996 and A17.2.3 – 1996

Question:

Rule 805.4 of A17.1 requires removal of power from the driving machine motor and brake if the speed deviation of 15% or more is continuous for more than 2 seconds.

Item 1.12.1 of A17.2.3 allows up to 15 seconds.

Item 2.13.2 of A17.2.3 1996 states that the "stopped handrail device" shall be tested by having the handrail motion sensor mechanically disconnected while operating the escalator and verify that the alarm sounds immediately and that the escalator stops within 15 seconds.

Where in A17.1 is the "stopped handrail device" addressed and required?

Answer:

A17.1a-1988 through A17.1b-1992 required a stopped handrail device, which must shut down the escalator and moving walk after 15 seconds if the handrail stalls. A17.1-1993 and later editions require a handrail speed-monitoring device, which must shut down the escalator or moving walk after 2 seconds of continuous speed deviation.

A17 Committee Approval: April 5,2000

Inquiry 99-43

Subject: Rule 102.2
Installation Of Pipes Or Ducts Conveying Gasses, Vapors, Or Liquids In Hoistways
Machine Rooms Or Machinery Spaces

Edition: ASME A17.1 – 1993

Question:

Figure 1 illustrates the installation of riser and return water lines in an elevator machine room for a baseboard type heater. Each line is approximately 15 feet long, with a shutoff valve located in each line in the machine room ceiling, and a bleeder valve located at the heater unit. The system operates at 30 pounds per square inch of pressure (working pressure) as installed, and the diameter of the piping is 1 inch.

- 1) Is the working pressure of 30 psi per the manufacturers specifications in violation of Rule 102.2(a)(1)?
- 2) Is the 30-ft. of riser and return water line located in the elevator machine room a violation of Rule 102.2(a)(2)?
- 3) Are the two-shutoff valves located in the elevator machine room a violation of Rule 102.2(a)(3)?

Answer:

- 1) No, the pressure specified in Rule 102.2(a)(1) applies to steam only.
- 2) No, Rule 102.2(a)(2) applies to risers and returns in hoistways only.
- 3) No, Rule 102.2(a)(3) applies to shutoff valves in hoistways only.

A17 Committee Approval: April 5,2000

Inquiry 99-46

Subject: Section 100
Construction of hoistways and hoistway enclosures

Edition: ASME A17.1 – 1996

Question:

Two elevator hoistways (one double) are in place, with two-hour fire-resistive hoistway walls. The exterior wall has an opening with 1" insulated annealed tinted glass in an aluminum frame. This wall was not required to be fire resistive due to it being located on the exterior wall. The hoistway is considered to be a two-hour fire enclosure.

As this hoistway is of fire-resistive construction, can we use non-safety glass in the exterior wall portion of the hoistway? If safety glass is required, where is that stated in the A17.1 Code?

Answer:

According to your description, three of the walls are of fire resistive construction and the fourth wall (glass) is of non-fire resistive construction, therefore the complete hoistway is not considered to be a two-hour fire resistive construction. The glass used in a non-fire resistive construction must comply with Rule 100.1b(2)(b).

A17 Committee Approval: April 5,2000

Inquiry 99-47

Subject: Section 3
Definitions

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

The Definition section of the preface to the Code states: "In addition to defining many of the terms used in the Code, a number of other terms are also defined in Section 3 for the convenience of architects, engineers, inspectors, manufacturers, and building owners, and to promote standardization of nomenclature and terminology."

Are all of the definitions contained in Section 3 of the A17.1 Code a part of the Code? If not, which ones are part of the A17.1 Code and which ones are not?

Answer:

Yes. All of Section 3 is part of the A17.1 Code.

A17 Committee Approval: April 5,2000

Inquiry 99-48

Subject: Section 3
Definition of Escalator and Moving Walk

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

The definition of an escalator is “power-driven, inclined, continuous stairway used for raising or lowering passengers” and the definition of a moving walk is “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”.

Is someone sitting in a wheelchair or a stroller permitted to ride on an escalator or moving walk?

Answer:

The Code referenced does not address this.

A17 Committee Approval: April 5,2000

Inquiry 99-49

Subject: Rule 805.3i
Step Upthrust Device

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

(1) Is the step upthrust device required to be installed so that the escalator will stop before the step reaches the combplate?

(2) If not, why?

Answer:

1) No.

2) The A17.1 Code does not address this issue.

A17 Committee Approval: April 5,2000

Inquiry 99-51

Subject: Rule 805.3i
Step Upthrust Device

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

The Code requires that the power be removed from the drive machine and brake “should a step be displaced against the upthrust track at the lower curve in the passenger carrying line of the track system”.

Is the means to be required to activate along the entire length of the lower curve (i.e. the transition zone)?

Answer:

No. The device must operate whenever a step is displaced against the upthrust track. However, there is no requirement that the upthrust track extend the entire length of the curve.

A17 Committee Approval: April 5,2000

Inquiry 99-52

Subject: Rule 905.2
Starting Switch

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

The Code requires that the starting switch be marked “DOWN”, “RUN”, and “UP”. The “UP” direction is supposed to be in the direction towards the drive machine.

(1) How does someone determine which is the “UP” direction if the drive machine is under the pallets or steps instead at one end of the moving walk?

(2) Building personnel who do not have knowledge of the equipment construction will use the switch. How does someone turning the start key know where the drive machine is located if they cannot see it, even if it is at one end?

Answer:

The key switch should be operated only by authorized personnel, as defined in Section 3.

A17 Committee Approval: April 5,2000

Inquiry 99-53

Subject: Rule 210.14(i)(3)
Inspection Operation With Hoistway-Door Electric Contact or Car-Door Electric Contact Open

Edition: ASME A17.1 – 1996

Question:

Does the means to enable two-way voice communication between the machine room and the interior of the car include the use of two-way radios carried by elevator personnel?

Answer:

No. The requirement is to provide two-way voice communications between the machine room and anyone in the car including passengers at all times.

A17 Committee Approval: April 5,2000

Inquiry 00-03

Subject: Section 2.2.4
Ventilation

Edition: A17.3 – 1993 including A17.3a-1994

Questions:

Does the use of exhaust air from the toilet and janitor closets of a building being vented through the elevator room to temper that space meet the intent of this rule on existing elevator machine rooms?

Answer:

This is outside the Scope of the A17.3 Code.

A17 Committee Approval: April 5,2000

Inquiry 00-04

Subject: Rule 101.3d
Access Doors and Openings

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

Can UL listed access openings referred to in Rule 101.3d(3) from the elevator machine room into the top of the elevator hoistway enclosure be used to have access to the elevator recall smoke detector, elevator shunt trip heat detector and building fire alarm smoke detector for service and replacement? This would include annual testing and cleaning of the devices and replacement if needed. This would prevent having to place a stepladder on top of the elevator cab to have access to these devices for service or replacement.

Answer:

Yes, provided that the access door is in the “hoistway enclosure”. See Section 3 definition of “hoistway enclosure”. The “hoistway enclosure” does not include the machine room floor.

A17 Committee Approval: April 5,2000

Inquiry 00-05

Subject: Rule 102.2(c)(1)
Installation of Pipes or Ducts Conveying Gases, Vapors, or Liquids in Hoistways,
Machine Room, or Machinery Spaces

Edition: ASME A17.1 – 1996

Question:

A pre-action sprinkler riser (dry pipe) that is used directly and exclusively in connection with the elevator must be located outside the hoistway. [Rule 102.2 (c)(1)], when similarly “such electrical wiring and cables used directly in connection with the elevator may be installed inside the hoistway”. (Rule 102.1 second paragraph)

What is the difference between these two applications in terms of safety?

Answer:

All electrical equipment permitted in Rule 102.1 is used directly for the elevator operation. A sprinkler system is not “used directly” for the normal operation of the elevator system and is not required by the A17.1 Code. Several safety concerns with regard to restricting equipment not directly connected to the normal elevator operation include but are not limited to the following:

- to limit the exposure to hazards of non-elevator personnel who are not trained for the safe access to and working in the hoistway;
- to prevent introducing additional hazards which may affect passenger safety; and
- to maintain required clearances for moving equipment.

A17 Committee Approval: April 5,2000

Inquiry 00-06

Subject: Appendix H
Elevator Corridor Call Station Pictograph

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

- 1) We understand the reference to the 'pictograph' to mean specifically the symbolic flame of the fire sign shown in Fig. H1. Is the flame the pictograph or is the entire sign, including the wording the pictograph?
- 2) The symbolic flame of the full size enlargement measures 5.75 inch wide when the height is 8 inch, as referenced in Appendix H. Is this the correct proportion, or is the 5 inch by 8 inch indicated in Appendix H the correct proportion?
- 3) We could not find a reference to Appendix H or Fig. H1 in the ASME A17.1 text. We also note that Appendix H uses the word "should" in lieu of "shall". What is the intent of the inclusion of Appendix H in the ASME A17.1?

Answer:

- 1) The pictograph includes the wording as well as the flame as shown in Fig. H1
- 2) The figure is not shown to scale. The proportion of the 5 in. by 8 in. is the correct proportion.
- 3) As indicated within the preface of the A17.1 Code, the appendices which are included in this document have been approved by the A17 Committee, but are not part of this American National Standard. They are advisory in nature and are intended for clarification only. See also Inquiry 94-07. However it is noted that certain jurisdictions may have adopted this as a mandatory requirement.

A17 Committee Approval: April 5,2000

Inquiry 00-08

Subject: Rule 802.6d
Safety Zone

Edition: ASME A17.1 – 1996 including A17.1b-1998

Question:

- 1) If the escalator safety zone is within an enclosed headhouse, will exit doors with a panic bar comply with this requirement if the doors are installed within the safety zone? Please note that panic doors cannot be locked from the escalator side in this situation.
- 2) If the same installation has an exit door inches outside the safety zone, may the door be locked?
- 3) Is a gate or door permitted within the safety zone if the escalator is not operating? If yes, will that gate or door have to comply with 805.3g Rolling Shutter Device?

Answer:

- 1) No, not if the doors can be closed while the escalator is operating and the open passage is less than the width between the centerlines of the handrails plus 8 in. (203 mm).
- 2) Rule 802.6d does not prohibit this, but the last sentence recommends against this. It reads "These dimensions are absolute minimums and every consideration should be given to traffic patterns." The purpose of this rule is to prevent any impediment to passengers exiting a moving escalator. A locked door just outside the safety zone, while not prohibited, should be considered and impediment.
- 3) See the answer to 1. This does not have to comply with Rule 805.3g.

A17 Committee Approval: April 5,2000

Inquiry 00-10

Subject: Rule 210.6
Phase Reversal and Failure Protection

Edition: ASME A17.1 – 1996

Question:

It is our interpretation that on the types of drives where a reversal of the incoming polyphase alternating current power will not cause reversal of motor rotation, there is no need to protect against either phase loss or phase reversal. Is this assessment correct?

Answer:

No, the intent of the requirement is to prevent the elevator from operating in the wrong direction in the case of either a phase reversal or a loss of phase.

A17 Committee Approval: April 5,2000

Inquiry 00-13

Subject: Rule 805.6
Tandem Operation

Edition: ASME A17.1 – 1996

Question:

Where two sets of escalators (an "up" and a "down" set) serve an intermediate landing, which has no exits other than the escalators, would tandem operation be required?

Answer:

Yes. Rule 805.6 reads, "*Tandem operation escalators shall be electrically interlocked where traffic flow is such that bunching will occur if the escalator carrying passengers away from the intermediate landing stops.*" Bunching would occur if one of the escalators moving away from the intermediate landing, stops, and both escalators leading onto the intermediate landing continue to operate.

A17 Committee Approval: April 5,2000

Inquiry 00-14

Subject: Rule 805.3b, Speed Governor
Rule 805.3h, Reversal Stop Device
Rule 805.3j, Disconnected Motor Safety Device

Edition: ASME A17.1 – 1996

Question:

Does an overspeed/underspeed detector, which causes removal of power from the driving machine motor and brake, satisfy the requirements of the speed governor, reversal stop device and the disconnected motor safety device?

Answer:

Yes, providing that the overspeed detector operates before the speed of the escalator exceeds 40% above rated speed.

A17 Committee Approval: April 5,2000

Interpretations Approved at the June 2000 A17 Standards Committee Meeting

Inquiry 91-26 (Reconsideration)

Subject: Rules 211.2, 306.11, 1002.2g, and 1002.3e
Standby Power
Edition: A17.1-1987 including A17.1a-1988 and A17.1b-1989

Question:

1) Example: Three traction elevators in a hospital which has an emergency generator supposedly large enough to accommodate three elevators, operating simultaneously off the emergency generator.

(a) Is a full-load safety test required with the elevators operating off the emergency generator? If not, please explain.

(b) Are these elevators required by A17.1 to operate simultaneously off the generator with rated load? If not, please explain.

2) Example: Three hydraulic elevators in a hospital which has an emergency generator supposedly large enough to accommodate three elevators, operating simultaneously off the emergency generator. Are these elevators required by A17.1 to operate simultaneously off the generator with rated load?

(Note: The question is rephrased to clarify what the Committee believes is the submitters intent of the question.)

Answer:

(1)(a) No. Test of the car and /or counterweight safeties is not required while operating on standby power.

(1)(b) No. The A17.1 Code does not require the simultaneous operation of the elevators on standby power.

(2) See answer to (1)(b) and also Rule 306.11.

A17 Committee Approval: June 29, 2000

Inquiry 99-38

Subject: Rules 102.2c(3)
Installation of Pipes or Ducts...

Edition: A17.1-1996 through A17.1c-1999

Questions:

(1) Is the following control method permissible? Elevator lobby, machine room and hoistway smoke detectors activate elevator recall. The elevator machine room or hoist-way heat detectors (rated 135 deg. F) activate a 60-second timer, after 60 seconds this timer then activates the elevator shunt trip. Sprinkler heads in the machine room and hoistway are rated 212 deg. F.

My concern is that during these 60 seconds, the sprinklers may activate while the elevator is still powered.

(2) Would the same control method be permissible if there was a solenoid valve installed for the machine room and hoistway sprinkler heads that did not permit waterflow until after the 60-second time delay?

Answer:

(1) ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity. Power must be removed prior to or upon application of water from a sprinkler.

(2) See answer to question #1.

A17 Committee Approval: June 29, 2000

Inquiry 00-15

Subject: Rule 211.3a(3) and Rule 211.3c
Phase I Emergency Recall Operation
Phase II Emergency In-Car Operation

Edition: ASME A17.1 – 1996

Question:

(1) Is the in-car emergency stop switch or the in-car stop switch required to remain operative under Phase II operation?

(2) If Phase II operation cannot be initiated unless the car is under Phase I control, therefore is the in-car emergency stop switch or the in-car stop switch required to remain inoperative? Also to be considered is that the elevator(s) are under control by authorized personnel while on Phase II operation.

(3) If the answer to question 1 is yes then is the elevator required to comply with Rule 211.3c(3)?

Answer:

1) Yes. Also see Inquiry 83-5.

2) See response to 1. The car is no longer on Phase I Emergency Recall Operation while it is on Phase II Emergency In-Car Operation. The in-car emergency stop switch or in-car stop switch is required to be operational during Phase II operation.

3) Yes.

A17 Committee Approval: June 29, 2000

Inquiry 00-16

Subject: Section 112
Power Operation, Power-Opening, And Power-Closing of Hoistway Doors and Car Doors or Gates

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

- (1) Are unperforated (solid, hinged) bi-fold and wood-fold gates considered collapsible? Or was that designation originally intended for what is known today as scissors-gates?
- (2) Would these unperforated, folding type gates be permitted to be fully power operated as long as safety force/obstruction measures are taken?

Answer:

- 1) The design described is not a car gate as defined by “car gate” in A17.1 Section 3.
- 2) See answer to Inquiry 97-08.

A17 Committee Approval: June 29, 2000

Inquiry 00-17

Subject: Rule 102.2c(3)
Installation of Pipes or Ducts Conveying Gases, Vapors, or Liquids in Hoistways, Machine Rooms, or Machinery Spaces

Edition: ASME A17.1 – 1996 including A17.1a-1997

Question:

Rule 102.2(c)(3) requires main line power supply disconnect prior to application of water from hoistway sprinklers located more than 2 feet above the pit floor.

- (1) Is it permitted to cause main line power disconnect from activation of sprinklers located within 2 feet of the pit floor?
- (2) Is it permitted to cause main line disconnect from activation of heat detectors within two feet of the pit floor adjacent to sprinkler heads?

Answer:

- 1) The ASME A17.1 Code does not address this issue.
- 2) The ASME A17.1 Code does not address this issue.

A17 Committee Approval: June 29, 2000

Inquiry 00-19

Subject: Rule 110.7b(3)
Glass Doors

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

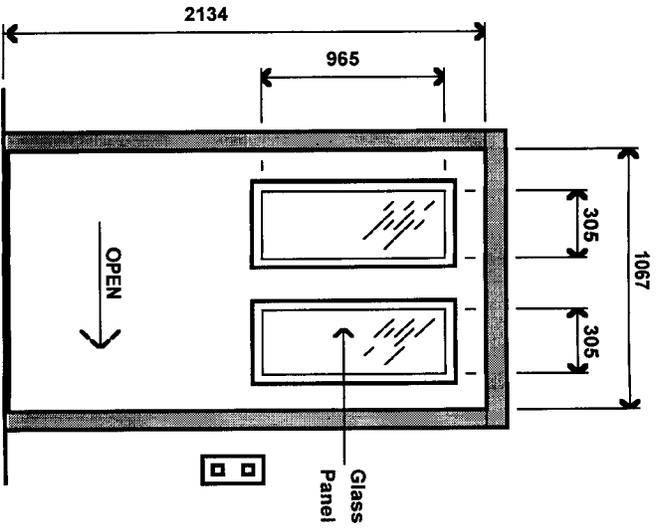
The following questions are based upon the attached sketches:

- 1) Is case 1 compliant to Rule 110.7b(3)?
- 2) Is case 2 compliant to Rule 110.7b(3)?
- 3) Is case 3 compliant to Rule 110.7b(3)?

Answer:

- 1) No.
- 2) No.
- 3) Yes, however it does not comply with A17.1 Rule 110.7b(4).

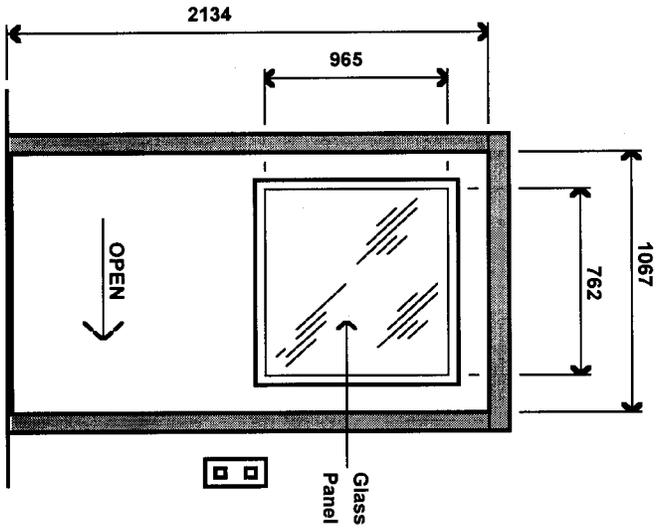
A17 Committee Approval: June 29, 2000



ELEVATION FROM HALL LOBBY

All dimensions given in mm.
% of Glass to Exposed Door 25.85%

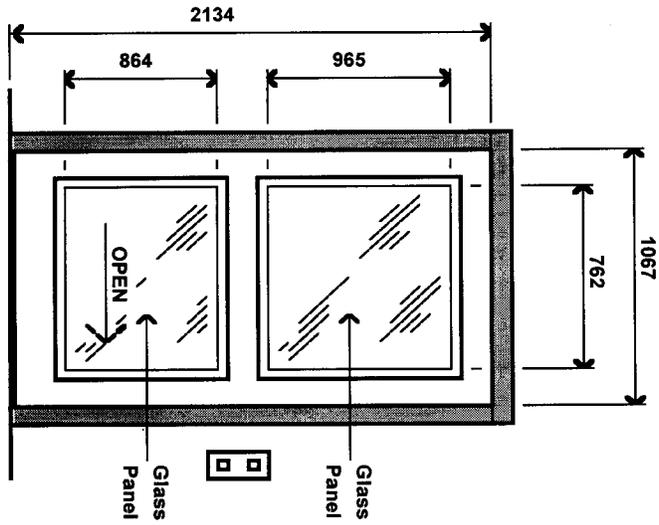
CASE 1



ELEVATION FROM HALL LOBBY

All dimensions given in mm.
% of Glass to Exposed Door 32.31%

CASE 2



ELEVATION FROM HALL LOBBY

All dimensions given in mm.
% of Glass to Exposed Door 61.22%

CASE 3

Inquiry 00-22

Subject: Rule 211.1(b)
Car Emergency Signaling Devices

Edition: ASME A17.1 – 1990

Question:

ASME A17.1 - 1990 Rule 211.1(b) requires, "the elevators shall be provided with a means within the car for communicating with or signaling to a service which is capable of taking appropriate action when a building attendant is not available." What is "appropriate action"?

Answer:

The "appropriate action" is whatever is necessary to resolve the emergency and needs to be determined on an individual basis. The level of response required is dependent on the uniqueness of the situation.

A17 Committee Approval: June 29, 2000

Inquiry 00-24

Subject: Rule 211.3b
Phase I Fire Alarm Activation

Edition: ASME A17.1 – 1996 including A17.1b-1998

Question:

The code states that when the fire alarm initiating device in the elevator machine room and/or elevator hoistway is activated, the visual signal (Fig.211.3a) shall illuminate intermittently. Does this mean that a fire alarm initiating device at the car landings when activated shall cause the visual signal to stay permanently illuminated? Or may the visual signal also be intermittently illuminated?

Answer:

Rule 211.3a(8) requires that the visual signal shall "illuminate" and "remain activated" which is a steady light. Rule 211.3b(5) requires modification of this operation by intermittently flashing the light when the specified devices have been activated to notify the firefighters within the car of a potential problem with the elevator. The firefighters should be prepared to exit the car as indicated in the sign in Figure 211.7(b).

A17 Committee Approval: June 29, 2000

Interpretations Approved at the September 2000 A17 Standards Committee Meeting

Inquiry 99-28

Subject: Rules 101.1a
Fire Resistive Construction

Edition: A17.1-1996

Questions:

There is no requirement in the Standard Building Code, which is enforced in North Carolina for machine rooms and machinery spaces to have fire resistance construction.

Hoistway enclosures and opening protectives are required to be fire resistant.

- (1) In this case, does ASME A17.1 require the machine rooms and machinery spaces to have fire-resistance enclosures for Electric Elevators?
- (2) Same as Question No. 1, except for Hydraulic Elevators?

Answer:

- (1) Rule 101.1 specifies that the building code determines whether the machine room be of fire resistive construction or non-fire resistive construction. If the building code requires that the machine room enclosure must be of fire resistive construction, Rule 101.1a(2) specifies the machine room enclosure must have the same rating as the hoistway unless the building code specifies otherwise.
- (2) See response to the first question. Rule 300.2 references Rule 101.1.

A17 Committee Approval: September 20, 2000

Inquiry 99-50

Subject: Rule 905.3g
Reversal Stop Device

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

The Code requires that the power be removed from the drive machine and brake in case of reversal of travel while the moving walk is operating in the ascending direction. The Code also requires that an "UP" direction be marked on the starting switch. Does this mean that a reversal stop device is required to function whenever a moving walk is running in the "UP" direction even if there is no incline?

Answer:

The terms "up" and "down" on the start switch are based on the location of the moving walk's drive. The term "ascending" means that the moving walk is physically operating up an incline. If the moving walk is capable of operating in the ascending direction, it is to be equipped with a reversal stop device. If there is no incline the reversal stop device is not required.

A17 Committee Approval: September 20, 2000

Inquiry 00-12

Subject: Rule 300.8d, Top Car Clearance

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

The basic problem is that certain components required by the Code are within the hoistway and are located between the two planes mentioned either in the Rule or the definition. Depending on design, some or all of these components have been provided on almost every hydraulic elevator for many years. All are located in the area beyond the car top and toward the hoistway wall.

(1) Would the rails and a rail bracket (required by Rule 301.1a) installed above the car be considered as other obstruction in determining the lowest point for the horizontal plane for clearance dimensions?

(2) Would terminal stopping devices (required or permitted by Section 305) attached to rails in the area above the car between the car and hoistway wall be considered as an other obstruction in determining the lowest point for the horizontal plane for clearance dimensions?

(3) Would a safety governor (required for a safety by Rule 301.8) secured to the hoistway and installed in the area between the car and hoistway wall be considered as an other obstruction in determining the lowest point for the horizontal plane for clearance dimensions?

(4) Would suspension ropes, rope sockets and shackle rods (required by Rule 302.1 b) be considered as an other obstruction in determining the lowest point for the horizontal plane for clearance dimensions?

(5) Would electrical wireways (see Rule 300.3) be considered as other obstruction in determining the lowest point for the horizontal plane for clearance dimensions?

Answer:

1) No. The intent is that the vertical distance only be measured within the perimeter of the car top.

2) See response to first question.

3) See response to first question.

4) See response to first question.

5) See response to first question.

A17 Committee Approval: September 20, 2000

Inquiry 00-18

Subject: Rule 301.8(a) and Rule 302.1b(7)
Car Safeties
Roped-Hydraulic Elevator

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

(1) Is a roped hydraulic elevator utilizing a hydraulic jack equipped with a plunger required to have a device which activates the car safeties if one or more of the car suspension ropes becomes slack?
(2) Is a roped hydraulic elevator utilizing a hydraulic jack equipped with a plunger required to have a manually reset device which removes power from the hydraulic pump motor and the control valve if one or more of the car suspension ropes becomes slack?

Answer:

(1) No. Rule 301.8(a) clearly indicates that such activation is permitted but not required.
(2) Yes. This applies to any hydraulic jack with either a plunger or a piston.

A17 Committee Approval: September 20, 2000

Inquiry 00-21

Subject: Rule 700.2(e), Rule 701.5b(12) and Rule 700.11e
Dumbwaiter Access Doors

Edition: ASME A17.1 – 1996 including A17.1b-1998

Question:

Rule 700.2(e) states in part "Hoistway access openings that open onto the travel of the dumbwaiter shall be provided with an electric contact which will cause interruption of power to the motor and brake when the access door is opened". Travel is defined in Section 3 as the vertical distance between the bottom and top terminal landing. This definition would seem to limit the requirement for electric contacts to access doors located below the top landing and above the bottom landing. In light of the statement in Rule 701.5b(12), are there any conditions where the Code would require dumbwaiter access doors (including machine room access doors) to be provided with electric contacts when the access opening is located above or below the "travel" as defined in Section 3?

Answer:

The definition of "travel" or "rise" defines the distance the car moves. In Rule 700.2(e) the phrase "travel of the dumbwaiter" refers to the path that the dumbwaiter car and its mounted components moves as the car travels between the bottom and the top terminal landings. A contact is required if the access opening is located within the path of travel of the dumbwaiter.

A17 Committee Approval: September 20, 2000

Inquiry 00-23

Subject: Rule 300.8a
Bottom of Car Clearance

Edition: ASME A17.1 – 1996

Question:

(1a) Is the referenced centerline in Rule 300.8a(2)(b) a vertical line through the center of the car frame thus making it "parallel" to the guide rail(s)?

(1b) If so, then the excluded zone is a vertical cylinder with a 300 mm radius whose centerline coincides with the centerline of the car frame. It appears that the point of the rule is to exclude the volume occupied by the hydraulic cylinder and its attachment to the bottom of the car. Is this correct?

(2a) Is the referenced center line in Rule 300.8a(2)(c) a vertical line through the center of the car frame thus making it "parallel" to the guide rail(s)?

(2b) If so, then the excluded zone is a vertical cylinder with a 300 mm radius whose centerline coincides with the centerline of the car frame. It appears that the point of the rule is to exclude the volume occupied by the hydraulic cylinder and its attachment to the bottom of the car. Is this correct?

(3) In Rule 300.8a(3), does one have to satisfy both (a) and (b)? Or can one satisfy either (a) or (b)?

Answer:

(1a) No. "Either side of the car frame centerline parallel to the guide rails" would refer to the vertical plane generally described by and centered on the assembly of the car frame plank, car frame uprights (stiles) and car frame crosshead.

(1b) No. Refer to the answer to question (1a). This exclusion would apply to either or both the front or rear. This exclusion applies to any equipment, not just the hydraulic cylinder and its attachment.

(2a) See response to question (1a).

(2b) See response to question (1b).

(3) It is not necessary to satisfy both Rule 300.8a(3)(a) and (b). It is only necessary to satisfy one of the two choices described.

A17 Committee Approval: September 20, 2000

Inquiry 00-25

Subject: Rule 805.6
Tandem Operation

Edition: ASME A17.1 – 1996

Question:

Would tandem operation be required on the escalators shown in the attached illustration?

Answer:

Yes.

A17 Committee Approval: September 20, 2000

Interpretations Approved at the January 2001 A17 Standards Committee Meeting

Inquiry 98-09

Subject: Rule 211.3a and 211.3b
Firefighters' Service

Edition: A17.1a-1997

Question(s):

Rule 211.3a [97a] indicates: No device other than the Phase 1 switch(es) or the fire alarm initiating device at the elevator floors, machine room, or hoistway (Rule 211.3b), shall initiate Phase 1 operation (see ANSI/NFPA 72, definition for initiating device).

Normal elevator service shall be provided and the operation from the smoke detectors required by Rule 211.3b shall be functional when all Phase 1 switches are in the "OFF" position, except as specified in Rule 211.3a(10).

Rule 211.3b[97a] indicates: Fire alarm initiating devices shall be installed at each elevator floor, associated elevator machine room, and where required, elevator hoistway in compliance with the requirements in ANSI/NFPA 72.

Before the revision the rules indicated: "elevator lobbies".

Questions:

- (1) Inquiry 84-105 answered previously "No device, other than the Phase 1 switch or smoke detectors in the elevator lobbies...." As revised-do all fire alarm initiating devices located on a particular floor initiate a Phase 1 operation regardless of their location to an elevator lobby?
- (2) It appears as revised that zones are eliminated. Is this so?
- (3) Pull stations regardless of where located on a floor are capable of initiating Phase 1 operation?

Answer:

(1) The A17.1 Code no longer defines the requirements for the initiating devices for Phase I operation. The requirements for these devices are now in NFPA 72 (National Fire Alarm Code). Refer to NFPA 72 (National Fire Alarm Code), Section 3-8.14.

(2) Note, see answer to (1).

(3) Note, see answer to (1).

A17 Committee Approval: June 24, 1998

Based upon reconsideration the following is the revised answer:

Revised Answer:

(1) The A17.1 Code identifies that the fire alarm initiating devices are required at each elevator floor, associated elevator machine room, and when required in the elevator hoistway, in compliance with NFPA 72. The installation requirements for these devices are in NFPA 72 (National Fire Alarm Code), Section 3-8.14.

(2) Note, see answer to 1.

(3) Note, see answer to 1.

A17 Committee Approval: January 10, 2001

Inquiry 99-45

Subject: Rules 2500.1 and 2500.2
Construction of Hoistway Enclosures and Machine Rooms and Machinery Spaces

Edition: ASME A17.1 – 1996

Question:

- 1) When a floor is provided at the top of a hoistway, based on the language in Rule 2500.1(b)(1), is a governor allowed to be inside the hoistway?
- 2) If the answer is no, what is the reason?
- 3) If the answer is yes, is the following correct:
According to Rule 2500.1(b), Rule 100.3 applies as modified in Rule 2500.1(b)(1), (2), (3) and (4). As per Rule 100.3a(2)(b)(2), the governor may not be inspected and serviced from the top of the car and therefore means of access shall be provided from outside the hoistway.
- 4) If the aforementioned is incorrect, what is the intent of the code?

Answer:

- 1) Yes.
- 2) See answer to (1).
- 3) Yes, when a floor is provided on top of the hoistway.
- 4) See answer to (1), (2), and (3)

A17 Committee Approval: January 10, 2001

Inquiry 00-28

Subject: Rule 802.2 and Rule 802.3g
Geometry
Guard at Ceiling Intersection

Edition: ASME A17.1 – 1993

Question:

When two escalators diagonally pass each other, what is the minimum distance between handrails and should the area of intersection where the two escalators cross be guarded?

Answer:

If the escalators are located such that the requirement of the dimension specified in Rule 802.3g requires the use of a ceiling guard, then the minimum distance between the handrails would be 8 inches plus the thickness of the guard.

A17 Committee Approval: January 10, 2001

Inquiry 00-30

Subject: Rule 111.5(a) & (c)
Restricted Opening of Hoistway Doors and/or Car Doors of Passenger Elevators

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

Does an electrical device with battery back up, that will unlock the doors when a car is outside the unlocking zone, and/or lock the doors when the car is inside the unlocking zone, (when the battery back up is dead or goes dead) meet the requirement of Rule 111.5(a) & (c)?

Answer:

No.

A17 Committee Approval: January 10, 2001

Interpretations Approved at the April 2001 A17 Standards Committee Meeting

Inquiry 99-39

Subject: Rule 210.4(b)
Clause I

Edition: A17.1-1996 including A17.1b-1998
CSA B44.1/ASME A17.5-1996

Question:

When you read the requirements of Rule 210.4(b) you are led to believe that all elevator related equipment must be certified to B44.1/A17-5. However, when you include the heading of Section 210 - Operating Devices and Control Equipment it seems to be more restrictive. It becomes even more restrictive when you look at the definition of Operating Device but there is no definition for Control Equipment-

The Scope of B44.1/A17.5 seems to offer some clarification except, if you introduce the definition of Operating Devices it reduces the number of items I would have thought to be included. Then we add "other equipment" which tends to push understanding the other way.

Please provide direction as to what is required to be certified to B44. 1/A17.5?

1. Hoist or pump motors, motor-generators, etc.?
2. Transformers, coils, chokes, etc.?
3. Leveling devices, limit switches, etc.?
4. Governor contacts, safety switches, emergency exit switches, selector broken cable switches, load weighting devices, etc.?
5. Door operators and associated contacts, door protective devices, etc.?
6. Car operating stations, car top control station, pit stop switch, corridor push button station, access switch station, firefighters' and standby power control station, etc.?
7. Position indicators, corridor lanterns, car lanterns, etc.?
8. Car lighting, car ventilation, work lights, outlets, etc.?
9. Machine room lighting, machine ventilation, disconnect switches, etc.?
10. Motion controllers, logic controllers (machine room and car mounted type), selectors, positioning devices, etc.?
11. System modification devices, i.e., adding firefighters' service, remote monitoring, etc.?

Answer:

The questions posed by the inquiry are too broad. The use of the etcetera leaves all the questions open-ended. The intent of this requirement is that only drive-machine controllers, logic controllers, and operating devices accessory thereto, for starting, stopping, regulating, controlling, or protecting electric motors, generators, or other equipment, for elevators, escalators, moving walks, dumbwaiters, and elevating devices for the handicapped shall comply with B44.1/A17.5.

A17 Committee Approval: April 4, 2001

Inquiry 00-02

Subject: Rule 2410.6
Safety Valve

Edition: A17.1-1996

Question:

Is it allowable to automatically reset the elevator after the activation of the safety valve described by ASME A17.1, Rule 2410.6?

Answer:

Rule 2410.6 does not exclude an automatic reset of the elevator. The purpose of Rule 2410.6 is to protect against pressure loss due to a rupture in the oil supply line. Current safety valve designs allow reset of the valve with restoration of supply line pressure.

A17 Committee Approval: April 4, 2001

Inquiry 00-11

Subject: Rule 2409.1a
Earthquake Equipment

Edition: A17.1-1996

Question:

1) According to the flowchart shown in Figure 2409.1 c, whether or not the car is on attendant operation, if a protective device has been actuated and the car is in motion, the car is to stop at the nearest landing. Although the code states that the attendant is to return the car to the nearest landing, it also seems that the code intends this operation to be removed from the attendant's control. Is this correct?

2) According to the flowchart shown in Figure 2409.1 c, the visual and audible signal should be activated any time the car is on attendant operation and an earthquake protective device has been actuated, regardless of whether or not the car is in motion. The code itself is unclear on this point, but implies that it is unnecessary to keep the visual and audible signal activated once the car has returned to the nearest landing. What is the intent of the code in this matter? If the code intends for a signal to remain active even after the car has returned to the nearest landing, is it permissible to turn off the audible signal and keep the visual signal on?

3) Does the code intend for the visual and audible signal to come on if the car is on inspection operation?

Answer:

(1) Yes. The "car with operator" decision box in the Fig. 2409.1c flow chart refers to the "designated attendant" on "elevators with traction machines, counterweights, and (with) selective, collective, or group operation . . ." in Rule 2409.1c. Figure 2409.1c is a flow-chart illustration of the requirements in Rule 2409.1c. Also see Rule 2409.1a(2) for use of "designated attendant" and definition of same in Section 3.

2) The code does not address this issue.

3) The code does not address this issue.

A17 Committee Approval: April 4, 2001

Inquiry 00-20

Subject: Rule 1003.2d
Type B and Type C Safeties

Edition: ASME A17.1 – 1996

Question:

- 1) Does Rule 1003.2d(1) require any specific method of overspeeding the elevator?
- 2) It is our interpretation that releasing the driving machine brake to overspeed the elevator to trip the governor and set the safety is not prohibited by Rule 1003.2. Is this correct?
- 3) Does Rule 1003.2d(2) requires the governor overspeed switch to be rendered inoperative only in the case where the elevator is being electrically oversped?

Answer:

- 1) No.
- 2) Yes, provided that “you can gradually increase the speed of the car until the governor causes the application of the safety.” This gradual speed increase must result in a normal (not inertial) trip of the governor.
- 3) Yes.

A17 Committee Approval: April 4, 2001

Inquiry 00-32

Subject: Rule 211.5(b) & (c)
Firefighters’ Service -Automatic Elevators With Designated Attendant Operation

Edition: ASME A17.1 – 1996 including A17.1b-1998

Question:

If a car is already on hospital service, and a call is registered for a floor other than the designated fire return floor when the Phase I fire return signal is received, should the doors be allowed to open automatically once the car stops at the chosen floor (which might very well be the floor where the fire is located)? Or should the doors assume Phase II operation (constant pressure open) under this condition?

Answer:

Door operation for a car that is on hospital service is not addressed by Rules 211.5 (b) and (c).

A17 Committee Approval: April 4, 2001

Inquiry 00-34

Subject: Rule 1002.3d
Brake

Edition: ASME A17.1 – 1996

Question:

When performing brake test, is the test acceptable to be performed on inspection operation?

Answer:

No. See definition of operation/inspection. See also previous interpretation (Inquiry) 96-57.

A17 Committee Approval: April 4, 2001

Inquiry 00-35

Subject: Rule 106.1d
Access to Pits

Edition: ASME A17.1 – 1986

Question:

Where no pit access door is installed, access to the pit is by means of the lowest hoistway door, and the pit is 4 ft. below the hoistway door sill:

(1) Is a pit ladder still required?

(2) May access be made by service personnel using a removable ladder in lieu of a fixed ladder?

Answer:

1) Yes.

2) The code requires a fixed vertical ladder.

A17 Committee Approval: April 4, 2001

Inquiry 00-36

Subject: Section 2405, Car Frames and Platforms
Section 2410, Hydraulic Elevators

Edition: A17.1-1996 including through A17.1d-2000

Question:

(1) Does a direct plunger hydraulic elevator without a counterweight have to meet the requirements of Section 2405?

(2) Does an indirect plunger hydraulic elevator without a counterweight have to meet the requirements of Section 2405?

Answer:

(1) Yes

(2) This edition of the code does not address indirect plunger hydraulic elevators without counterweights.

A17 Committee Approval: April 4, 2001

Inquiry 00-37

Subject: Rule 211.3(b)(5)
Phase I Fire Alarm Activation

Edition: ASME A17.1 – 1996 including A17.1b-1998

Question:

If the fire alarm initiating device that initiated the flashing operation becomes reset while the elevator is still on Phase I or Phase II operation may the flashing operation of the fire hat be reset immediately?

Answer:

Yes. The code only requires the visual signal to flash when the fire alarm initiating device in the machine room or hoistway is activated.

A17 Committee Approval: April 4, 2001

Inquiry 00-39

Subject: Rule 111.3a
Hoistway-Door Combination Mechanical Locks and Electric Contacts

Edition: ASME A17.1 – 1996 through A17.1d-2000

Question:

Is it the specific intent to restrict the use of Hoistway-Door Combination Mechanical Lock and Electric Contacts exclusively to:

- (a) Freight elevators?
- (b) Freight elevators equipped with manually operated vertical sliding doors?

An electric traction passenger elevator has a single rear opening, located at the bottom terminal landing. It (and all landings) have single-section manually operated horizontal swinging doors. The car doors are two-speed horizontal sliding power-operated type.

- (a) Is it permissible to use an approved Hoistway-Door Combination Mechanical Lock and Electric Contact at this reverse entrance?
- (b) If the answer to (2)(a) is "No," would the answer be "Yes" if this were a freight elevator?

Answer:

This Rule permits the use of combination mechanical locks and electrical contacts only on freight elevators equipped with manually operated vertically sliding doors provided all the other requirements specified in Rules 111.3a(1) and (2) are complied with.

A17 Committee Approval: April 4, 2001

Inquiry 00-40

Subject: Rules 200.9b and 200.10
Fastening of Guide Rails To Rail Brackets

Edition: ASME A17.1 – 1996 through A17.1d-2000

Question:

Rule 200.9b regarding fastening of the guide rail brackets to supporting structure (wall), requires that the bolt holes in the bracket and support conform to requirements of Rule 200.10.

Rule 200.10 requires that the diameter of holes or width of slots can not exceed the diameter of the bolt by more than 1/16 in. Does this mean that the guide rail bracket that attaches to the wall cannot be slotted horizontally? If this is the case, how can the use of wall inserts comply, since the inserts provide a continuous horizontal slot, which does not meet the requirements that, the hole or slot be no more than 1/16 greater in width than the bolt diameter? It is my understanding that one reason for this requirement is to assure that the horizontal dimension between the platform and sill is maintained, and the use of inserts does not conform to this requirement.

Answer:

No. Length and orientation of the slots are not restricted. Thus, guide rail brackets are permitted to have horizontal slots provided that the widths of these do not exceed the bolt diameter by more than 1/16th inch.

A17 Committee Approval: April 4, 2001

Inquiry 00-41

Subject: Rule 1303.1d(3)
Car Frame Uprights (Stiles)

Edition: ASME A17.1 – 1996 through A17.1d-2000

Question:

Could you explain the derivation of the slenderness ratio and how it applies to uprights?
If the calculation is followed, then an elevator with a brace rod connection at a point less than 2/3 of the distance from the top fastening in the car frame plank must utilize a C10 x 15.3 min stile to comply (this is a standard passenger car arrangement). This does not seem reasonable, many installations continue to use a C6 x 8.2. Which is correct?

Answer:

The fundamental formula for the slenderness ratio is given as $L/r = 120$.

For a compression member subject to a compressive load applied anywhere in the middle one-third of the car frame upright, evaluation of the conventional Euler buckling formula shows that a reduced column length, $L_r = 0.75L$ can be used.

Therefore, substituting $L_r = 0.75L$ in the fundamental formula above results in $L/r = 160$.

A17 Committee Approval: April 4, 2001

Inquiry 00-42

Subject: Rule 108.1a
Clearances Between Car and Hoistway Enclosures

Edition: ASME A17.1 – 1996

Question:

(1) According to interpretation number 87-45, the 3/4" minimum running clearance permitted by Rule 108.1a does not apply to hoistway wall fastenings such as conduit; raceways; pull boxes; pit ladders, etc. My question is: following the ruling as put forward by the interpretation, is it permissible, for example, for the car to run as close as 1/1000 inch away from the conduit, etc regardless of the speed of the elevator, providing that the car is no closer than 3/4; to the hoistway enclosure?
(2) What is the absolute minimum running clearance for equipment mounted to the hoistway enclosure and where is it stated in the Rules?

Answer:

- 1) Rule 108.1a only addresses the clearances between the car and hoistway enclosure.
- 2) This issue is not addressed by the code

A17 Committee Approval: April 4, 2001

Inquiry 00-43

Subject: Rule 2409.1c
Elevator Operation

Edition: A17.1-1996

Question:

- 1) Is it the intent of the code that after a counterweight displacement switch is activated and, Rule 2409.1c(2), (3), (4), or (5) is complied with, can the elevator then run for public use at 150 ft/min, if the displacement switch is no longer activated because it self resets?
- 2) Rule 2409.1c(2) and (6) seem to be in conflict with each other. What does shut down mean? What action must be taken to return the car to service? Rule 2409.1c(9) does not require a manual reset button or switch, it says may be reset by button or switch.

Answer:

- 1) Yes
- 2) The car should not be returned to service, except as permitted in 2409.1c(6), until a thorough post-earthquake inspection of the car, hoistway and machine room is made by a competent elevator technician or mechanic.

A17 Committee Approval: April 4, 2001

Inquiry 01-01

Subject: Rule 210.15
System to Monitor and Prevent Automatic Operation of the Elevator with Faulty Door Contact Circuits

Edition: ASME A17.1 – 1996

Question:

Since Rule 210.15 only appears in Part II of A17.1, and is not referenced anywhere in Part III of A17.1, is it the intent of the A17.1 Code to only require compliance with this Rule on traction elevators and not on hydraulic elevators?

Answer:

The requirements of Rule 210.15 are neither prohibited nor required for hydraulic elevators. However, when a System to Monitor and Prevent Automatic Operation of the Elevator with Faulty Door Contact Circuits is provided, the intent is that it must comply with the requirements of Rule 210.15.

A17 Committee Approval: April 4, 2001

Inquiry 01-04

Subject: Rule 101.2
Equipment in Machine Rooms

Edition: ASME A17.1 – 1996

Question:

We have a large facility with sixteen (16) elevators divided into four separate elevator machine rooms on the roof. We have located and installed a single electrical distribution panel board that serves all of the elevator machine feeders in one of the elevator machine rooms. This distribution panel serves nothing but the elevator machines. The enforcing authority, upon inspection of the installation has ordered that this panel board be relocated out of the elevator machine room it is in because it also serves elevator machines that are located in other machine rooms. We felt that because this distribution panel was dedicated to elevator machine equipment only, that it would be acceptable to locate it in any of the elevator machine rooms. Is the stricter interpretation of Rule 101.2 the intent of the code?

Answer:

The application described is in compliance with the requirement of Rule 101.2, however other codes may have requirements that address this issue.

A17 Committee Approval: April 4, 2001

Inquiry 01-06

Subject: Rule 306.14
Pressure Switch

Edition: ASME A17.1 – 1996

Question:

The last sentence of Rule 306.14 states "The door(s) shall be permitted to open by operation of the in-car door open button, when the car is within the unlocking zone."

Are we correct in our understanding that this is permissive i.e. when the car is in the unlocking zone and the pressure switch has been activated you may or may not open the doors when the in-car door open button is operated?

Answer:

Yes.

A17 Committee Approval: April 4, 2001

Inquiry 01-10

Subject: Rule 210.2(c)
Compensating-Rope Sheave Switch

Edition: ASME A17.1 – 1996

Question:

Is it a requirement that a compensating-rope sheave switch be manually reset? Does it have to be a manually reset type switch or can the switch make and break as the car is moving; or does it have to be mechanically opened and stay open until reset?

Answer:

There is no requirement in A17.1 that the compensating-rope sheave switch be manually reset.

A17 Committee Approval: April 4, 2001

Inquiry 01-12

Subject: Rule 306.15, Low Oil Protection
Rule 110.3b, Closing of Hoistway Doors

Edition: ASME A17.1 – 1996 including A17.1a-1997

Question:

The following questions are based on a freight elevator having continuous pressure power-operated vertically sliding doors:

- 1) Has a time value been assigned to the "predetermined interval" called for in Rule 306.15?
- 2) In order for the in-car "Door Open" button to remain operative, per Rule 306.15(b), the inspector has determined that the doors must be closed, however, this car requires continuous pressure to close the doors. Is the Inspector's interpretation of this Code section correct?
- 3) Does Rule 110.3(b) apply, since the doors are not horizontally sliding?

Answer:

- 1) No.
- 2) No. The door open button must remain operative. The fact that the doors are open is not an indication that the door open button is inoperative.
- 3) No. If you do not have horizontally sliding doors Rule 110.3(b) does not apply.

A17 Committee Approval: April 4, 2001

Interpretations Approved at the June 2001 A17 Standards Committee Meeting

The following is the previously approved answer:

Inquiry 94-13

Subject: Rule 102.2c(4)

Edition: A17.1-1990 including A17.1b-1992

Question: Is it acceptable to delay the power disconnect signal (and waterflow actuation) using a dry set of contacts in the elevator controller? An elevator recall system would be installed with additional smoke detectors in the elevator pit and at the top of the elevator shaft. Once the elevator capture is complete, the contacts will close allowing power to the heat detectors. When the heat detector goes into an alarm state, the power will be disconnected and a solenoid valve in the sprinkler will open.

Answer: No.

A17 Committee Approval: March 16, 1994

Reconsideration questions:

- 1) Is it permitted to provide a means of determining the completion of elevator fire recall to prevent the shut down of elevators until recall is complete?
- 2) If the above is not permitted, is it intended that activation of a heat detector located in the machine room or pit will shut off electrical power to the elevators immediately upon activation regardless of the location, movement or completion of fire recall?

Answer:

- 1) Yes, see Inquiry 88-33. However, this must be accomplished "independent of the elevator control system."
- 2) The requirement is stated in the performance terms. The Rule requires that the main line power supply be automatically disconnected upon or prior to the application of water from sprinklers. The Committee recognizes an elevator may not be at a landing when power is automatically disconnected. See Inquiry 88-33.

A17 Committee Approval: June 27, 2001

Inquiry 98-08 (Original Inquiry)

Subject: Rule 211.3a
Firefighters' Service

Edition: A17.1-1996

Question(s):

(1) Emergency Recall operation has been activated by placing the Phase 1 key switch at the designated level in the "ON" position. None of the smoke detectors required by Rule 211.3b have been activated. Can Phase I emergency recall be canceled by:

(a) Placing the Phase 1 key switch at the designated level in the "OFF" position?

(b) Moving the Phase 1 key switch at the designated level to the "BYPASS" then to the "OFF" position?

(2) If the answer to questions 1 (a) and (b) are "yes" does a system design that required you to cancel Phase 1 recall only as specified in question 1 (b), comply with Rule 211.3a?

Answer:

(1a) Yes

(1b) Yes

(2) Yes, this does not violate the intent of the A17.1 Code.

A17 Committee Approval: June 24, 1998

The following is the revised answer based upon the request for reconsideration:

Inquiry 98-08 that was published in Interpretation Book No. 23 has been reconsidered. As a result of A17 Standards Committee action a future cut-off date has been established, after which the interpretation of Inquiry 98-08 in Book No. 23 is no longer valid for use. The cut off date established by the A17 Standards Committee is (insert effective date of A17.1a-2001) which coincides with the effective date of the A17.1a-2001 Addenda to the A17.1-2000 edition of the Code.

Answer:

(1a) Yes

(1b) Yes

(2) No. A system that requires you to go to the "BYPASS" position prior to "OFF" in order to release a car manually placed on Phase I via the key switch does not comply with the requirements of Rule 211.3a.

A17 Committee Approval: June 27, 2001

Inquiry 99-44

Subject: Car Buffers and Bumpers

Edition: Rule 301.3 of ASME A17.1 – 1996 through A17.1a-1997

Question:

Rule 301.3 states that car buffers or bumpers shall conform to the requirements of Section 201. Section 201.1a allows the use of Spring, Oil, or Equivalent Buffers. Would a polyurethane foam buffer design satisfy the “Spring Buffer” or “Equivalent Buffer” allowance of Rule 201.1a?

Answer:

A spring buffer has unique characteristics pertaining to its energy storage capability and long-term durability. A polyurethane foam buffer does not constitute a spring buffer as such, but may be deemed to be equivalent provided that equivalence to the provisions of Rule 201.3 are demonstrated to the authority having jurisdiction.

A17 Committee Approval: June 27, 2001

Inquiry 00-20

Subject: Type B and Type C Safeties

Edition: Rule 1003.2d of ASME A17.1 – 1996

Question:

- 1) Does Rule 1003.2d(1) require any specific method of overspeeding the elevator?
- 2) It is our interpretation that releasing the driving machine brake to overspeed the elevator to trip the governor and set the safety is not prohibited by Rule 1003.2. Is this correct?
- 3) Does Rule 1003.2d(2) require the governor overspeed switch to be rendered inoperative only in the case where the elevator is being electrically oversped?

Answer:

- 1) No.
- 2) Yes, provided that “you can gradually increase the speed of the car until the governor causes the application of the safety.” This gradual speed increase must result in a normal (not inertial) trip of the governor.
- 3) Yes.

A17 Committee Approval: June 27, 2001

Inquiry 00-26

Subject: Drum Diameter

Edition: Rule 401.9 of ASME A17.1 – 1996 through A17.1c-1999

Question:

1. Does a drive sheave with a pitch diameter of 24 times the diameter of the rope comply with Rule 401.9?
2. Does a deflector sheave with a pitch diameter of 24 times the diameter of the rope comply with Rule 401.9?

Answer:

- 1) Yes.
- 2) Yes.

A17 Committee Approval: June 27, 2001

Inquiry 00-27

Subject: Reversal Stop Device

Edition: Paragraph 5.3.9 of ASME A17.3 – 1993

Question:

Does an escalator have to be equipped with a specific reversal stop device if it has a missing step device, handrail motion device and safety brake detector device?

Answer:

Paragraph 5.3.9 is a performance requirement for sensing the reversal of escalator steps. The paragraph does not specify how this performance requirement should be met. If the performance requirement in Paragraph 5.3.9 is fulfilled by other devices installed on the escalator, a separate reversal stop device is not required to be installed.

A17 Committee Approval: June 27, 2001

Inquiry 00-29

Subject: Installation of Capacitors or Other Devices to Make Electrical Protective Devices Ineffective

Edition: Rule 805.11 of ASME A17.1 – 1996 including A17.1b-1997

Question:

If an escalator brake uses a capacitor to energize either the motor or the brake torque, will it comply with this rule if the result of a capacitor failure is braking at full torque, which can cause a stop in excess of 3 ft/s^2 on a lightly loaded escalator?

Answer:

Rule 805.11 only applies to the electrical protective devices and not to motors and brakes.

A17 Committee Approval: June 27, 2001

Inquiry 00-33

Subject: Phase I Fire Alarm Activation

Edition: Rule 211.3(b) of ASME A17.1 – 1996 including A17.1a-1997

Question:

- 1) Are smoke detectors required to be installed in sprinklered hoistways?
- 2) Do elevator lobbies at enclosed landings require initiating devices to be installed?

Revised Answer:

- 1) ASME A17.1a-1997 edition deferred requirement of the smoke detectors to NFPA 72.
- 2) Yes.

A17 Committee Approval: June 27, 2001

Inquiry 01-02

Subject: Material and Type

Edition: Rule 802.5a of ASME A17.1 – 1996

Question:

- 1) Is epoxy or any similar material included under this section of the Code?
- 2) Are there any epoxy type substances that fall under the 94 HB classification?
- 3) Can the step treads be a plastic or epoxy type material? Please clarify.

Answer:

- 1) Yes.
- 2) ASME does not approve or test such materials. In order to develop what substances do fall under that level, the test must be performed by the manufacturer.
- 3) Yes, provided that they comply with the tests called for in Rule 802.5a.

A17 Committee Approval: June 27, 2001

Inquiry 01-07

Subject: Code Data Plate

Edition: Rule 1206.1i of ASME A17.1 – 1996

Question:

Is it the intent of the A17.1 Code to require that all existing elevators be provided with a Code Data Plate?

Answer:

Yes.

A17 Committee Approval: June 27, 2001

Inquiry 01-09

Subject: Penetration of a Floor

Edition: Rule 2000.7a of ASME A17.1 – 1996

Question:

Is the hoistway in the attached sketch considered to be penetrating the floor?

Answer:

Yes.

A17 Committee Approval: June 27, 2001

Inquiry 01-11

Subject: Sprinkler Piping and Elevator Machine Rooms and Hoistway (A17.1)
Pipes Containing Gases, Vapors or Liquids (A17.3)

Edition: Rule 102.2(c) of A17.1-1996 including A17.1d-2000
Paragraph 2.1.4 of A17.3-1996 including A17.3a-2000

Question:

Rule 102.2(c) of A17.1, provides the specific requirements for sprinkler protection being installed in hoistways and machine rooms associated with the elevator. Five stipulations are underneath this section, none of which require an isolation valve on the sprinkler system for the specific sprinklers located in the hoistway or machine room.

Paragraph 2.1.4(c) of A17.3, lists three stipulations associated with sprinklers in the hoistways, one of the three stipulations is an isolation valve provided in an accessible location outside of the hoistway.

It appears that an isolation valve will not be required on a new installation, however, upon the first inspection would be required to have one. Was the isolation valve requirement removed from A17.1 in error or was it failed to be removed from A17.3.

Answer:

The isolation valve requirement was intentionally removed from A17.1, but inadvertently was not removed from A17.3 Paragraph 2.1.4 (c)(3).

A17 Committee Approval: June 27, 2001

Inquiry 01-14

Subject: Installation of pipes or ducts....

Edition: Rule 102.2c(3) of A17.1-1996 including A17.1d-2000

Question:

- 1) Is it permitted to provide a means of determining the completion of elevator fire recall in the elevator controllers for the cross zoned preaction sprinkler control to prevent the shut down of elevators until recall is complete?
- 2) If the above is not permitted, is it intended that activation of a heat detector located in the machine room or hoistway will shut off electrical power to the elevators immediately upon activation regardless of the location, movement or completion of fire recall?

Answer:

- 1) No. Any delay of sprinkler activation must be accomplished independent of the elevator control system.
- 2) A heat detector is not required by ASME A17.1. Rule 102.2c(3) requires the main line power supply to be automatically disconnected upon or prior to the application of water from sprinklers. How this is accomplished is outside of the scope of A17.1.

Also see revised response to Inquiry 94-13.

A17 Committee Approval: June 27, 2001

Inquiry 01-15

Subject: Restricted Opening of Hoistway Doors and/or Car Doors on Passenger Elevators

Edition: Rule 111.5 of A17.1-1996 including through A17.1d-2000
Requirement 2.12.5 of A17.1-2000
Paragraph 2.7.4 of A17.3-1996 including A17.3a-2000

Question:

These Rules, Paragraphs and Requirements require door restrictors on passenger elevators. Are restrictors required on all passenger elevators regardless of the type of operation or only on automatic operation elevators?

Answer:

The requirement applies to all passenger elevators.

A17 Committee Approval: June 27, 2001

Inquiry 01-16

Subject: Type of Speed-Governor Overspeed Switches, Speed-Reducing Switches, and Car-Safety-Mechanism Switches Required.

Edition: Rule 206.4c of A17.1 – 1996

Question:

Does the code allow for the governor overspeed switch to be manually reset electrically from the control panel or must the personal intervention take place at the switch location on the governor?

Answer:

Rule 206.4c only requires that the switch must be manually reset, which requires personal intervention to address the fault condition. The Rule does not address the location of the manual reset. Any manually operated reset that is electrically controlled must be in compliance with Rule 210.9(c)(2).

A17 Committee Approval: June 27, 2001

Inquiry 01-17

Subject: Equipment in Machine Rooms

Edition: Rule 101.2 of A17.1-1993 including A17.1a-1994

Question:

With regard to Inquiry 95-38, if the “smoke detector control equipment” is in fact monitoring for operation and activation of the smoke and/or heat detectors in the elevator machine room, elevator hoistway and elevator lobbies; is it then performing other functions and thereby not permitted to be placed in the elevator machine room?

Specifically, if the “smoke detector control equipment” or fire alarm control panel:

- 1) Emits an audible and/or visual signal to indicate to the building’s maintenance personnel that a smoke detector in the elevator machine room, hoistway or lobbies has become disabled or inoperative, is it permitted to be installed in the elevator machine room?
- 2) Serves the function of a sub panel for the fire alarm system, whereby it collects signals from the smoke and heat detectors located in the elevator machine room, hoistways or lobbies and forwards those on to the main fire alarm control panel, is it permitted to be installed in the elevator machine room?
- 3) Is the location where the building fire alarm signaling device is either silenced or reset, is it permitted to be installed in the elevator machine room?
- 4) Is the location where either the smoke and/or heat detector is reset and restored to normal operation, is it permitted to be installed in the elevator machine room?

Answer:

- 1) Yes, if dedicated to smoke and/or heat detectors in the elevator lobby, hoistway and/or machine room.
- 2) Yes, if dedicated to smoke and/or heat detectors in the elevator lobby, hoistway and/or machine room.
- 3) No
- 4) Yes, if dedicated to smoke and/or heat detectors in the elevator lobby, hoistway and/or machine room.

In addition, NFPA 72 may have additional requirements addressing the fire alarm panel.

A17 Committee Approval: June 27, 2001

Inquiry 01-18

Subject: Phase II Fire Operation

Edition: 2.27.3.3.4 of A17.1-2000

Question:

It appears that where the Phase II switch is turned to the “OFF” position, the car must return to the designated level whether or not Phase I is still in effect. Is this correct?

Answer:

Yes.

A17 Committee Approval: June 27, 2001

Inquiry 01-21

Subject: 2.11.3.2 (Closing of Hoistway Doors)
2.27.2.4.3 (Emergency or Standby Power System)

Edition: A17.1-2000

Question:

- 1) Is it required to keep horizontally sliding, power operated doors fully open once the car has returned to the designated level on emergency power operation?
- 2) Is it permissible to keep horizontally sliding, power operated doors fully open once the car has returned to the designated level on emergency power operation?

Answer:

- 1) No
- (2) Yes, under the conditions stated in Rule 2.11.3.2.

A17 Committee Approval: June 27, 2001

Inquiry 01-23

Subject: Access to Pits

Edition: Rule 106.1d of A17.1-1996

Question:

What is the minimum distance from the center of the ladder rung to the wall behind the ladder when there is no unavoidable obstruction present?

Answer:

The answer is 4.5 inches.

A17 Committee Approval: June 27, 2001

Inquiry 01-24

Subject: Car Emergency Signaling Devices

Edition: Rule 211.1(a)(1)(a) of A17.1-1996
2.27.1.1.1(a) of A17.1-2000

Background:

The requirement for audible signaling devices states, "have a sound pressure rating of not less than 80 dBA and no more than 90 dBA at 3 m (10ft)". Elevator manufacturers take the "have a sound pressure rating etc." as a specification requirement to put on the purchase order to their supplier. Suppliers certify and provide documentation that this requirement has been met. They use an industry standard set-up with no intervening partitions between the alarm and the measuring device. Suppliers try to keep the alarm dBA level well away from both the minimum and maximum limits and typically achieve s about 84 dBA at the specified distance.

A local jurisdiction has been measuring 3 m (10ft) away with closed hoistway doors and closed car doors between the alarm and measuring device. They have found that while the alarm can still be heard it is below 80 dBA. They then write up non-compliance because 80 dBA was not measured in this situation. The local jurisdiction believes that their method of measurement is correct and what the code requires. The manufacturer believes the method used by the supplier is correct and what the code requires.

Question:

- (1) Is the local jurisdiction correct?
- (2) Is the supplier correct?
- (3) Is neither the supplier nor the jurisdiction correct and another method intended by the committee? If yes, what is that method?

Answer:

The sound pressure levels that are stated in the Rule 211.1(a)(1)(a) of A17.1-1996 (including through A17.1d-2000) and 2.27.1.1.1(a) of A17.1-2000 are design requirements for the audible signaling device. A17.1 does not prescribe tests to determine compliance with these requirements.

A17 Committee Approval: June 27, 2001

Inquiry 01-25

Subject: Electrical Protective Devices

Edition: Rule 306.4(a) and (b) of ASME A17.1 – 1996

Question:

- 1) Is a stop switch (210.2v) as referenced in Rule 306.4(b)(6) required to be in the car?
- 2) If a stop switch is not present, is it required to be installed?

Answer:

- 1) It is the intent of Rule 306.4(a) and (b) that an in-car stop switch is required by Rule 210.2(v) on passenger elevators and an emergency stop switch is required by Rule 210.2(e) on freight elevators.
- 2) Yes. See answer to question 1

A17 Committee Approval: June 27, 2001

Interpretations Approved at the September 2001 A17 Standards Committee Meeting

Inquiry 00-07

Subject: Item 1.17
 Standby Power Operation

Edition: ASME A17.2.1 – 1996

Question (revised):

- (1) A number of elevators (6 in this case) is wired to operate simultaneously on standby power.
- (1 a) Does each elevator (passenger) need to be loaded with 125% of rated load and run in the down direction?
- (1 b) Does each elevator (passenger) need to be loaded with 125% of rated load and run in the up direction?
- (1 c) Does each elevator (passenger) need to be loaded with 125% of rated load and run at the same time?
- (2) Is the purpose of the test to verify braking or elevator performance while running in both directions? If the brake is being tested, what is the rationale for having all brakes tested simultaneously? Would not the same results be found during a normal power 5 year test?
- (3) Also, if a company chooses to call the Inspectors Manual a guide that is not enforceable, how does an inspector verify the elevators operate properly on standby power?

Answer:

- (1 a) Passenger elevators and freight elevators permitted to carry passengers are only required to safely lower, stop and hold 125% rated load on standby power.
- (1 b) No, they are not required to lift 125% of rated load.
- (1 c) No, the A17.1 Code does not require simultaneous operation of the elevators on standby power. In addition, also see revised answer to Inquiry 91-26.
- (2) The purpose of the test is to verify that the elevator will operate in accordance with A17.1, Rule 211.2 on standby power. There is no requirement for testing of brakes simultaneously, see answer to question (1c).
- (3) See the introduction to the A17.2.1-1996 Inspectors" Manual for Electrical Elevators.

A17 Committee Approval: September 11, 2001

Inquiry 00-38

Subject: Rule 112.4(b)
Item 1.8.2
Force Limitation, Horizontally Sliding Hoistway Doors

Edition: ASME A17.1 – 1996 including A17.1c-1999
ASME A17.2.1-1996 including A17.2.1b-1998
ASME A17.2.2-1997 including A17.2.1a-1998

Background: There are designs for horizontal sliding power door operating equipment that include a feature that will cause closing doors to reverse if a rise in current indicates an increased resistance to their closing. The objective is to provide a means to reopen the door(s), should something or someone block the hoistway doors(s) without hitting a safety edge or breaking a non-contact door reopening device.

When this feature is provided, the test procedure described in A17.2.1 and A17.2.2, Item 1.8.2, to verify compliance with the door closing force specified in A17.1, Rule 112.4(b), is impractical. Item 1.8.2 states you “allow the doors to close between one-third and two-thirds of their normal travel and stop them.” Once stopped the current limiting circuitry is activated and the doors re-open. There is zero closing force once the doors are stopped, thus the requirements of A17.1, Rule 112.4(b) are complied with.

Question:

Item 1.8.2 requires you to stop the door before taking a force measurement, which will cause the door to reopen. If the current limiting circuitry is disabled to take the measurement, you are measuring a condition that does not replicate the conditions during actual use. How do you verify compliance with Rule 112.4(b)?

Answer:

ASME A17.2.1, Introduction paragraph titled “Application” reads “This Manual is intended to serve only as a guide for qualified inspectors performing routine inspections and witnessing periodic and acceptance inspections and tests.”

Current provisions within ASME A17.2.1 may not fully address all technology. Therefore, products or systems or other methods of inspection or testing may also be acceptable.

The Inspectors’ Manual does not preclude the use of alternative methods for demonstrating compliance with A17.1 Rule 112.4b.

A17 Committee Approval: September 11, 2001

Inquiry 01-27

Committee: Escalator and Moving Walk

Subject: Part 6

Edition: ASME A17.1 – 2000

Question:

When there is a sprinkler in an elevator machine room, we understand that A17.1 rules require a shunt trip breaker to prevent the elevator from operating when the sprinkler is activated. Does this rule apply to escalators or moving walks under any of the following conditions:

- 1) When the sprinkler is in a remote control room where the escalator controller is located?
- 2) When the sprinkler is above the steps of the escalator, regardless of the controller location?
- 3) When the sprinkler is within the escalator truss?

Answer:

Part 6 of the A17.1-2000 does not address this issue.

A17 Committee Approval: September 11, 2001

Inquiry 01-28

Subject: Part VIII

Edition: ASME A17.1 – 1993, including A17.1b-1995

Question:

Is there a requirement prohibiting the use of a stationary escalator as a stairway?

Answer:

No. The requirements for stairways are generally contained within the Scope of the Building Code.

A17 Committee Approval: September 11, 2001

Inquiry 01-29

Subject: Material and Types (of Steps)

Edition: Rule 802.5a of ASME A17.1 – 1993, including A17.1a-1994
Item 2.12.2 of ASME A17.2.3 – 1999 including A17.2.3a-2000

Question:

In A17.1a-1994, Rule 802.5a states "Step frames, treads, and risers, excluding their attachments or inserts, shall be metal, ..." This rule has remained unchanged through A17.1-1996 and all of the associated addenda.

In A17.2.3a-2000, Item 2.12.2 ends with the sentence "A17.1a-1994 and later editions specifically required that step frames, treads, and risers including any attachments or inserts be made of metal..."

There appears to be a conflict between A17.1, Rule 802.5a and A17.2.3, Item 2.12.2 covering the inspection of those devices. Please clarify, what should the inspector be looking for?

Answer:

Where there is a conflict with the A17.1 Code and the A17.2 Inspector's Manual, the A17.1 Code prevails.

A17 Committee Approval: September 11, 2001

Inquiry 01-39

Subject: Welding

Edition: 3.24.4.1.1 of ASME A17.1 – 2000

Question:

In requirement 3.18.5 and 3.19.6 the reference is to welding of components that are subjected to hydraulic system pressure. Does the reference to "machine components" refer only to the components installed between the check valve or control valve and the cylinder? The hydraulic machine can contain many welds which are located between the pump and check valve, or in non-pressure system locations.

Answer:

The stated question refers to the check valve and control valve covered by Section 3.24 and external piping to the cylinder covered by Section 3.19 in the same sentence thus there must be two answers.

- 1) The reference to "machine components" does not refer to components covered by Section 3.18, Hydraulic Jacks and 3.19, Valves, Pressure Piping, and Fittings. Welding of external piping from the hydraulic machine to the cylinder is covered by 3.19.6.
- 2) Requirement 3.24.4 refers solely to components covered by Section 3.24 Hydraulic Machines and Tanks. The check valve or control valve, associated internal piping and tank are covered by Section 3.24. To insure that tanks do not leak it is important that welding be done by qualified welders following the referenced procedures in Section 8.8. The tanks and some piping from the tank to the pump inlet are generally considered at or near atmospheric pressure.

A17 Committee Approval: September 11, 2001

Interpretations Approved at the January 2002 A17 Standards Committee Meeting

Inquiry 01-41

Subject: Emergency Terminal Stopping Device

Edition: Rule 209.4b of A17.1 – 1996

Question:

Rule 209.4b requires that control systems on elevators with static control and rated speeds over 200 ft/min be equipped with an emergency terminal stopping device to remove power from the hoist motor and brake should the normal terminal stopping means and the normal terminal stopping device fail to cause the car to slow down at the terminal floor as intended. Several localities are testing for compliance with this rule and failing cars if the car or the counterweight does not come to a complete stop prior to striking the buffer.

Does this Rule require that the car or counterweight must come to a stop prior to coming into contact with the buffer?

Answer:

No.

A17 Committee Approval: January 9, 2002

Reconsideration of Inquiry 00-30

Subject: Rule 111.5(a) & (c)
Restricted Opening of Hoistway Doors and/or Car Doors of Passenger Elevators

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

Does an electrical device with battery back up, that will unlock the doors when a car is outside the unlocking zone, and/or lock the doors when the car is inside the unlocking zone, (when the battery back up is dead or goes dead) meet the requirement of Rule 111.5(a) & (c)?

Answer:

No.

A17 Committee Approval: January 10, 2001

A17 Committee Reaffirmed Answer: January 9, 2002

Inquiry 01-20

Subject: Requirement 5.3.1.1
Construction of Hoistway and Hoistway Enclosure

Edition: ASME A17.1 – 2000

Question:

- 1) How many floors can be served under 5.3.1.14?
- 2) Can an elevator traveling through a floor opening without an enclosure and which is provided with a vertically lifting hatch cover as provided in 5.3.1.1.3 serve 3 landings?

Answer:

- 1) There is no limitation to the number of floors served under this requirement provided total travel does not exceed 50 feet. (5.3.1.10.3)
- 2) No, it may serve only two adjacent landings.

A17 Committee Approval: January 9, 2002

Inquiry 01-31

Subject: Electrical Equipment and Wiring

Edition: Rule 210.4 of A17.1 – 1996

Question:

Rule 210.4 requires compliance with NFPA 70.

The 1999 edition of NFPA 70 (NEC) section 620-62 requires that overcurrent protective devices in each disconnecting means be selectively coordinated with any other supply side overcurrent protective devices, when more than one driving machine is supplied by a single feeder.

Does the A17.1 Code require that the elevator inspector verify this requirement? If yes, how is this verified?

Answer:

No. The required inspections relating to disconnecting means are included in A17.1 - 1996 Rule 1001.2(b)(11). In addition, see Item 2.11 of A17.2.1 – 1996 for additional guidelines.

A17 Committee Approval: January 9, 2002

Inquiry 01-32

Subject: Inspection Operation (Top of Car)

Edition: Rule 210.1d(2) of A17.1 – 1996

Question:

Rule 210.1d(2)(b) indicates that when on top of car operation, power door operating devices must be inoperative. Basically, this Inquiry is asking what constitutes power door operating devices.

- (1) When on top-of-car inspection operation is it permissible for the door to power close (re-close) if it is manually opened past a certain point from the fully closed position?
- (2) If the answer to Question 1 is yes, what is the proper procedure to verify that the car door electric contact (gate switch) is functioning?
- (3) Is power permitted to be supplied to the door operator when the elevator is on top of car inspection operation?

Answer:

- (1) Yes. See Inquiry 89-9 for additional information.
- (2) The A17.1 Code does not address these procedures. See A17.2.1 for guidelines on the verification of car door lock functioning.
- (3) Yes.

A17 Committee Approval: January 9, 2002

Inquiry 01-34

Committee: Hydraulic

Subject: Emergency Operation and Signaling Devices

Edition: 3.27.1 and 3.27.2 of ASME A17.1 – 2000

Question:

According to both of the referenced sections, if the car is below the recall floor (and therefore incapable of returning to the recall floor) when one of the devices listed in 3.27.1 is activated, the car should descend to an available floor. It continues on to say that automatic power-operated doors shall open, and then reclose within 15 s, with the door open button remaining operational.

- 1) Should the doors only open automatically if the car has successfully returned to the recall floor, given that the exact location of the fire may be unknown? Or
- 2) Should the doors always open automatically, regardless of whether or not the car was able to return to the recall floor?

Answer:

- 1) No.
- 2) Yes.

A17 Committee Approval: January 9, 2002

Inquiry 01-36

Subject: Platform Guards

Edition: Rules 2500.12(f) and 2501.4b of A17.1-1996
Requirements 5.2.1.12(e) and 5.2.1.15.2 of A17.1-2000

Question:

Are the two rules referenced from the A17.1-1996 edition as well as the two requirements referenced from the A17.1-2000 edition in conflict?

Answer:

Yes. A revision has been opened to address this item.

A17 Committee Approval: January 9, 2002

Inquiry 01-38

Subject: Hydraulic Systems

Edition: 3.18.4.2 of ASME A17.1 – 2000

Question:

Does this requirement refer to the term “Hydraulic Machine” or to the term “Hydraulic Jack, “ or both?

Answer:

Both.

A17 Committee Approval: January 9, 2002

Inquiry 01-40

Subject: Phase Protection of Motors

Edition: Rule 210.6 of A17.1 – 1996
Requirement 2.26.6 of A17.1-2000

Question:

Is software an acceptable means of preventing operation in the wrong direction upon phase reversal of the polyphase alternating current power supply?

Answer:

There are no restrictions on the type of hardware and/or software used to satisfy requirement 2.26.6 of A17.1-2000 and Rule 210.6 of A17.1-1996. The requirements are written in performance language.

A17 Committee Approval: January 9, 2002

Inquiry 01-41

Subject: Emergency Terminal Stopping Device

Edition: Rule 209.4b of A17.1 – 1996

Question:

Rule 209.4b requires that control systems on elevators with static control and rated speeds over 200 ft/min be equipped with an emergency terminal stopping device to remove power from the hoist motor and brake should the normal terminal stopping means and the normal terminal stopping device fail to cause the car to slow down at the terminal floor as intended. Several localities are testing for compliance with this rule and failing cars if the car or the counterweight does not come to a complete stop prior to striking the buffer.

Does this Rule require that the car or counterweight must come to a stop prior to coming into contact with the buffer?

Answer:

No.

A17 Committee Approval: January 9, 2002

Inquiry 01-46

Subject: 8.6.8.2 Step to Skirt Clearance
8.6.8.3 Step/Skirt Performance Index

Edition: ASME A17.1 – 2000

Question:

(1) Do the requirements in 8.6.8.3 apply to all existing escalators?

(1a) Regardless of the date installed?

(1b) Regardless of the ASME A17.1 Code requirement in effect at the time of installation?

(1c) Only if required by the Code in effect at the time of installation and/or alteration?

(2) If an escalator step/skirt performance index complies with the requirements of 8.6.8.3.3 and the escalator was installed under ASME A17.1c-1999 or an earlier edition:

(2a) Must the maximum loaded gap be 5 mm or less?

(2b) If the answer to question 2(a) is "NO" what is the maximum step to skirt clearance?

Answer:

(1a) Yes.

(1b) Yes.

(1c) No.

(2a) No. There is no loaded gap requirement for escalators installed under ASME A17.1c-1999 and earlier editions.

(2b) The maximum clearance required by the code in effect at the time of installation or alteration.

A17 Committee Approval: January 9, 2002

Inquiry 01-47

Subject: Safety Bulkhead

Edition: Requirement 8.6.5.8 of ASME A17.1 – 2000

Question:

Do the requirements in 8.6.5.8 apply to all existing elevators?

- (1) Regardless of the date installed.
- (2) Regardless of the ASME A17.1 Code requirement in effect at the time of installation?
- (3) Only if required by the Code requirement in effect at the time of installation and/or alteration?

Answer:

- (1) Yes.
- (2) Yes.
- (3) No, the requirements of 8.6.5.8 apply to all existing elevators.

A17 Committee Approval: January 9, 2002

Inquiry 01-53

Subject: Definition Brake, Emergency

Edition: Section 1.3 of A17.1-2000

Question:

Do the added underlined words in the definition of brake, emergency describe the purpose of this device?

Brake, emergency: a mechanical device independent of the braking system used to retard or stop an elevator should the car overspeed in the upward direction or move in an unintended manner in either direction. Such devices include, but are ...:

Answer:

Yes. The purpose of the ascending car overspeed protection is given in requirement 2.19.1.1 and the purpose of protection against unintended car movement is given in requirement 2.19.2.1.

A17 Committee Approval: January 9, 2002

Inquiry 01-60

Subject: Function and Stopping Distance of Safeties

Edition: Requirements 2.17.3 and 8.10.2.2.2(bb)(4)(b) of ASME A17.1 – 2000

Background:

(1) During a safety test of Type B safeties is the brake permitted to assist in stopping the car within the stopping distance specified in 2.17.3 or must the safeties function to stop the car in the specified distance without any assistance from the brake?

(2) If the answer to (1) is “yes”, is there a specific amount that the brake can contribute to the stopping, i.e. what is meant by “minimum assistance”?

(3) Are means meeting requirements in Section 2.19 permitted to function during the safety test?

Answer:

1) The brake is permitted to assist in the safety stop.

2) No, the minimum assistance is not specified.

3) This is not addressed by the current rules.

A17 Committee Approval: January 9, 2002

Inquiry 01-61

Subject: Interpretation of Rules 3.1; 2.1.3.1.1 and 2.1.2.1 of ASME A17.1-2000

Edition: ASME A17.1 - 2000

Background:

Section 3.1 requires that hydraulic elevator hoistway enclosures conform to 2.1.1 through 2.1.6, whereby Rule 2.1.3.1.1 requires "a metal or concrete floor shall be provided at the top of the hoistway". Rule 3.1.2. further clarifies where the floor is to be located.

However, according to rule 2.1.2.1 "the top of the hoistway shall be enclosed as required by the Building Code'

Question:

If the Building Code does not require any enclosure for the top of a partially enclosed hoistway of a hydraulic elevator installed in an building such as atrium (fully protected from the elements), is it permitted not to provide any floor over the hoistway, irrespective of the requirement in 3.1 and 2.1.3.1.1?

Answer:

Yes. Requirement 2.1.3.1.2(b) does not require a floor when the “machine is located below or at the side of the hoistway”.

A17 Committee Approval: January 9, 2002

Interpretations Approved at the April 2002 A17 Standards Committee Meeting

Inquiry 00-31

Subject: Rule 112.3b(1)
Power-Closing of Hoistway Doors and Car Doors or Gates by Continuous-Pressure Means

Edition: ASME A17.1 – 1996 including A17.1c-1999

Question:

1) For vertically sliding biparting counterbalanced hoistway doors, Rule 112.3b(1) requires that release of the closing means shall cause the doors to stop, or stop and reopen. Some systems allow the door controller to complete the last portion of the closing sequence even though the operator has released the closing means. At what point does it meet the intent of the rule for the door controller to complete the door closing sequence although the operator may have released the closing means?

2) A specific instance is where a manufacturer's installation instructions call for the timer s limit switch to be set at the point where both hoistway door panels are 8in. from their stopped positions. (i. e. there remains a 16 in. gap between the panels). At that point, the circuitry is such that the timer relays will complete the closing sequence automatically, even though the door-close button is released (and if the car gate is within 12 inches of the closed position). Does this operation comply with the intent of Rule 112.3b(1)?

Answer:

1) The Code rule does not address a specific close dimension, stopping time, or deceleration. The Code requirement is stated in performance terms. Upon "release of the closing means" a closing door will continue to move a limited distance, due to momentum, until it comes to a stop.

If upon release of the close door button, the door is already in the process of stopping, then the operation complies with the code.

2) See answer to question 1.

A17 Committee Approval: April 10, 2002

Inquiry 01-08

Subject: Rule 2000.7a
Penetration of a Floor

Edition: ASME A17.1 – 1996

Question:

- 1) If a lift goes through a second floor or higher will the floor be penetrated?
- 2) If a vertical wheelchair lift is in an enclosed hoistway, does the continuous perimeter include the walls of the hoistway?
- 3) In diagram "A", where the exterior wall is one of the sides of the hoistway is there floor penetration?
- 4) In diagram "B", the exterior wall is part of the hoistway enclosure. Is there floor penetration?

Answer:

- 1) Please refer to the definition of Penetrate a floor in Section 3.
- 2) No. See answer to question (1).
- 3) Yes. See Inquiry 94-25.
- 4) Yes. See Inquiry 94-25.

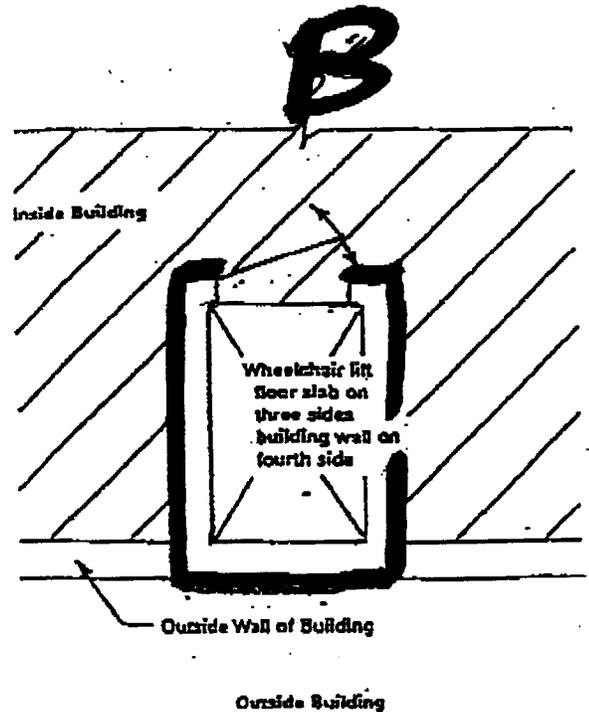
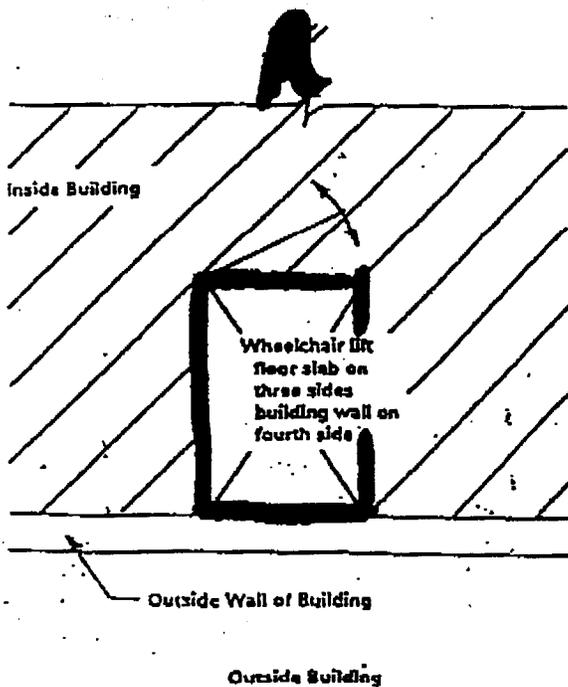
A17 Committee Approval: April 10, 2002

Inquiry 01-08

Wheelchair Lift / Floor Penetration

Definition of floor penetration -- "To penetrate a floor is to pass through or pierce the floor in such a way that the rectangular opening has four contiguous sides".

1. If a lift goes through a second floor or higher will the floor be penetrated?
2. If a vertical wheelchair lift is in an enclosed hoistway does the four contiguous sides include the walls of the hoistway?
3. In diagram "A" below, where the exterior wall is one of the four contiguous sides of the open hoistway is there floor penetration?
4. In diagram "B" below the exterior wall is part of the hoistway enclosure is there floor penetration?



Inquiry 01-33

Subject: Low Oil Protection

Edition: 3.26.9 of ASME A17.1 – 2000

Question:

Does this requirement permit the elevator to stop at an intermediate floor (such as the main floor to allow egress of a handicapped person) before the elevator lowers to the bottom landing?

Answer:

No.

A17 Committee Approval: April 10, 2002

Inquiry 01-35

Subject: Phase I Emergency Recall Operation

Edition: Rule 211.3a of A17.1-1996 including A17.1a-1997

Question:

Is it permitted to activate Phase I Emergency Recall Operation from the activation of a water detector in the bottom of the elevator hoistway if it is programmed as a supervisory device as stated in NFPA definitions for initiating device.

Answer:

No, the A17.1 code permits only fire alarm initiating devices or the Phase I switch to activate Phase I recall. NFPA 72 defines which initiating devices generate fire alarm signals, to initiate Phase I recall.

A17 Committee Approval: April 10, 2002

Inquiry 01-37

Subject: Firefighters' Service – Automatic Elevators

Edition: Rule 211.3 of A17.1-1996

Question:

- 1) What is the proper way to remove Phase I when activated by a smoke detector?
- 2) Is the following allowed, "when on car-top-inspection, the Phase I is activated by a smoke detector then the fire alarm system is reset and the Phase I is then reset with the phase I key switch, the car is not at the designated or alternate level when this is done, can the car be returned to normal service or must the car return to the designated or alternate level before reverting back to normal service"?

Answer:

- 1) See Rule 211.3b(5).
- 2) Assuming top-of-car operation remained in effect during Phase I operation; the car is returned to normal service when top-of-car operation is turned off and Phase I is not active.

A17 Committee Approval: April 10, 2002

Inquiry 01-48

Subject: Top Emergency Exits

Edition: Requirement 8.4.4.1.2 of ASME A17.1 – 2000

Question:

This Rule requires that the opening of the top emergency exit electrical contact shall limit the car speed to not more than 0.75 m/s (150 ft/min) for an elevator in Seismic Risk Zone 2 or greater, although it does not specify whether or not the elevator must be on Earthquake Operation to operate at this speed with this contact open, nor is it clear whether this is a requirement or an option.

- 1) If the top emergency exit contact opens, is it permissible to operate the car at a speed of up to 150 ft/min only if the car is on Earthquake Operation, but prevent operation of the car otherwise?
- 2) Is it permissible to prevent operation of an elevator in Seismic Risk Zone 2 (or greater) when the top emergency exit electrical contact opens during any mode of operation?

Answer:

(1): Yes

(2): Yes. This switch must initiate a stop per 2.26.2. Then per 8.4.4.1.2, it is permissible to operate the car at a speed no greater than 150 ft/min.

A17 Committee Approval: April 10, 2002

Inquiry 01-49

Subject: Phase I Emergency Recall Operation

Edition: Rule 211.3a of A17.1-1996 including A17.1d-2000

Question:

Rule 211.3a(8) states that the visual and audible signal system shall remain activated until the car has returned to the designated level. However, it does not state that they must remain activated until the doors are opened to their limits, though some inspectors are interpreting it this way.

- 1) Is it permissible to maintain the audible signal just until the car steps into the designated level (the position indicator changes), while the visual indicator remains on until the car is returned to normal operation, or do you require the audible (and visual) signal to remain active until the doors are open to their limits (or alternatively, until the doors begin to open)?
- 2) Is it permissible to keep the visual indicator illuminated throughout fire service?

Answer:

- 1) Returned means the car is stopped at the recall level. The position indicator and the position of the door is irrelevant to the issue.
- 2) Yes.

A17 Committee Approval: April 10, 2002

Inquiry 01-52

Subject: Clearance Between Step and Skirt (Loaded Gap)

Edition: Requirement 8.11.4.2.20 of ASME A17.1 - 2000

Background:

Requirement 8.11.4.2.20(c) requires the load to be applied "between 25 mm (1 in) and 100 mm (4 in.) below the nose line of the steps." You are also referred to "Fig 8.11.4.2.19(d)." This figure shows the steps fully extended.

Question:

If the measurement tool is affixed to the steps when they are fully extended do you need to reaffix the tool when the steps are in the transition region or when the steps are flat?

Answer:

This is beyond the scope of the A17 Standards Committee. This is a performance issue and it is not addressed in the A17.2 Guide.

A17 Committee Approval: April 10, 2002

Inquiry 01-54

Subject: Rule 802.2(b), Geometry
Rule 802.4c, Guards
Rule 803.5m, Handrail Entry Device

Edition: ASME A17.1 – 1996

Background:

These questions were brought to light by a situation that results in a handrail entering a wedged shaped balustrade are of reduced clearances with the handrail entry device located approximately 6" away from the reduced clearance entry point.

Rule 802.2(b) states in part: The handrail shall be a minimum of 4 in. (102 mm) horizontally and 1 in. (25 mm) vertically away from adjacent surfaces, except that rounded fillets or beveled sides of the handrail stand are permitted.

Question:

- 1) Does this mean that except for rounded fillets or beveled sides of the handrail stand, these clearances must be maintained from all adjacent surfaces whether they are surfaces attached to the building or surfaces attached to the escalator?
- 2) Are these clearances required to be maintained for the full length of the handrail in either direction until it enters the handrail entry device required in 805.3m?
- 3) When the handrail guard and the handrail entry device are two separate components and if the components of the handrail guard (802.4c) encroach into these clearances, how far inside the handrail guard is the handrail entry device allowed to be located?
- 4a) If components of the handrail guard encroach into these clearances, is the handrail entry device required to be located on the handrail guard where the clearances are reduced from those required by 802.2b?
- 4b) Or may the handrail entry device be located anywhere as long as it operates when an object becomes caught between the handrail and the handrail guard?

Answer:

- 1) Yes.
- 2) Yes.
- 3) Individual code requirements do not universally apply when modified by specific code rules. The clearances required in Rule 802.2b apply to the exposed portion of the escalator handrail. The clearances do not apply to the handrail guard and handrail entry device required by Rules 802.4c and 805.3m. The relationship between the handrail guard and the handrail entry device is a design relationship and not addressed in the Code.
- 4a) See response to question 3.
- 4b) See response to question 3.

A17 Committee Approval: April 10, 2002

Inquiry 01-55

Subject: Comb Pallet Impact Device

Edition: Rule 905.3k(1) of ASME A17.1 – 1996 including A17.1a-1997
Requirement 6.2.6.3.11 of ASME A17.1 – 2000

Question:

- 1) Was it the intent of the A17 Standards Committee to increase the forces in 905.3k(1)?
- 2) Should comb-pallet impact device of moving walks installed using ASME A17.1a-1997 be required to meet 905.3k(1) as written?
- 3) Given the increase in forces made in ASME A17.1-2000, 6.2.6.3.11, would a moving walk that met these requirements also meet the intent of 905.3k(1)?

Answer:

- 1) Yes.
- 2) Yes. Moving walks installed under A17.1a-1997 must meet the requirements of Rule 905.3k(1) as written. However, in the interest of safety, the AHJ should be aware of changes made in later editions of the code, the rationale of which is as follows: Experience backed up by test data indicated that the level of forces required in A17.1-1996 including through A17.1d-2000 are too low and create false stops. Further test data show that the new figures would prevent casual contact with the comb from tripping the comb-pallet impact device.
A17.1-2000, 6.2.6.3.11 reads as follows: “
- 3) See answer to 2.

A17 Committee Approval: April 10, 2002

Inquiry 01-56

Subject: Safety Valve

Edition: Rule 2410.6 of ASME A17.1 – 1996

Question:

A direct acting hydraulic elevator located in a seismic risk zone 2 is equipped with a safety valve. After the safety valve has been tripped, does the Code prohibit automatic restarting the pump in order to reset the safety valve?

Answer:

No.

A17 Committee Approval: April 10, 2002

Inquiry 01-58

Subject: Bottom and Top Car and Counterweight Clearances and Runby

Edition: Rule 1203.1g of A17.1-1996 including A17.1c-1999

Question:

An alteration was made to a two (2) stop; single wall cylindered; holed hydraulic, which was replaced in an existing hoistway, with a two (2) stop holeless hydraulic, retaining existing speed and capacity, hoistway entrances and other salvageable peripheral equipment.

The existing elevator had only 2'-0" refuge space; as required by code at the time of installation. By reducing the inside cab height; and additional 18 1/2" of refuge space was gained; for a total of 41 1/2" of refuge space.

Since Rule 1203.1g states that "Existing clearances may be maintained..." and the clearances were actually increased to the maximum available for the existing hoistway; does the end result meet/or exceed the requirements of 1203.1g?

Answer:

The alteration is considered a change in the location of the driving machine. As such Rule 1203.3e requires the installation to conform to the requirements in Part 3 of the Code.

A17 Committee Approval: April 10, 2002

Inquiry 02-01

Subject: Interruption of Power

Edition: Rule 211.3d of A17.1-1996

Question:

Assuming that the elevator conforms to the second sentence of Rule 211.3d, and remains on Phase I or Phase II operation and functions accordingly, my questions are:

- 1) Is the car permitted to move to reestablish absolute car position?
- 2) Is the car required to move to reestablish absolute car position?
- 3) Is the car permitted to move to any floor or position between floors to reestablish absolute car position?
- 4) Is the car required to move only to a specific floor or floors, or a specific position between floors to reestablish absolute car position?

Answer:

- 1) Yes
- 2) No
- 3) Yes
- 4) No

A17 Committee Approval: April 10, 2002

Inquiry 02-02

Subject: Requirement 2.11.7.2, Glass Doors
Requirement 2.14.1.8, Glass in Elevator Cars

Edition: A17.1-2000

Question:

- 1) The elevator hoistway enclosure and car doors are permitted, by A17.1-2000 Section 2.1.1.2.2(d) and 2.14.5.8.2(a), use of glass in conformance to ANSI Z97.1 or 16 CFR Part 1201. Why is glass in conformance to ANSI Z97.1 no longer permitted by A17.1-2000 Section 2.11.7.1.4(b) in elevator hoistway doors?
- 2) Should A17.1-2000 Section 2.11.7.1.4(b) be revised to permit use of glass in conformance to ANSI Z97.1?
- 3) The elevator hoistway enclosure Section 2.1.1.2.2(d) and car doors 2.14.5.8.2(a) are permitted, by A17.1-2000, use of glass in conformance to ANSI Z97.1 or 16 CFR Part 1201. Why is glass in conformance to ANSI Z97.1 no longer permitted; by A17.1-2000 Section 2.14.1.8.1(a); in elevator car enclosure panels?
- 4) Should A17.1-2000 Section 2.14.1.8.1(a) be revised to permit use of glass in conformance to ANSI Z97.1?
- 5) The scope of the Standard 16 CFR Part 1201 is for storm doors or combination doors, doors, bathtub doors and enclosures (definition: bathtub doors and enclosures means assemblies of panels and/or doors that are installed on the lip of or immediately surrounding a bathtub.), shower doors and enclosures (definition: shower door and enclosure means an assembly of one or more panels installed to form all or part of the wall and or door of a shower stall.), sliding glass doors (patio-type).
 - a) Is 16 CFR Part 1201 the correct standard for elevator hoistway enclosures and car enclosure panels?
 - b) Should all rules, excluding doors, specify only the requirement to conform to the impact standard of 16 CFR Part 1201?

Answer:

- 1) The requirements were revised in A17.1- 2000 to coordinate with the glazing requirements of the Consumer Product Safety Commission and Building Codes.
- 2) No. See answer to number 1.
- 3) See answer to number 1.
- 4) No. See answer to number 1.
- 5a) It is one of the standards. See 2.14.1.8.1(a) and 2.1.1.2.2(d).
- 5b) No.

A17 Committee Approval: April 10, 2002

Inquiry 02-03

Subject: Collection of Oil Leakage

Edition: 3.18.3.7 of ASME A17.1 – 2000

Question:

Is requirement 3.18.3.7 written to apply to all hydraulic jacks including those with neoprene seals, or just those with packings?

Answer:

Requirement 3.18.3.7 applies to all hydraulic jacks.

A17 Committee Approval: April 10, 2002

Inquiry 02-04

Committee: Hoistway

Subject: Requirement 2.4.12.1, Refuge Space on Top of Car Enclosure

Edition: A17.1-2000

Question:

The Code requires an “unobstructed horizontal area of not less than 0.5m² (5.4ft²) for a refuge area on top of the car. It further requires that “it shall measure not less than 600 mm (24 in.) on any side. Can the refuge space be a square, rectangle, parallelogram, trapezoid, triangle or any other shape provided the minimum specified dimensions are provided?”

Answer:

Yes.

A17 Committee Approval: April 10, 2002

Inquiry 02-05

Subject: Requirement 2.14.7.1, Illumination and Outlets Required.

Edition: A17.1-2000

Question:

Requirement 2.14.7.1.3 states “Passenger Elevators shall be provided with auxiliary lighting on each elevator conforming to the following”.

In previous editions of A17.1 wording in rule 204.7a(3) required the “power supply” for the auxiliary lighting to be “on each elevator”. This meant that a battery power supply of some sort had to be on the elevator.

- 1) Is it the intent of A17.1-2000 to NOT require the power source for the auxiliary lighting to be on the elevator?
- 2) Would other forms power supply for the auxiliary lighting such as building emergency generators that provide emergency power to the car lighting branch circuit be acceptable in lieu of a power supply “on the elevator” as long as the other conditions of rule 2.14.7.1.3 are met?
- 3) If so, this seems to conflict with Article 620-22 (A) of NFPA-70 (NEC 1999 & 2002) which require that the branch circuit for the car lighting feed the “auxiliary lighting power source”.

Answer:

- 1) The Code is written in performance language. The location of the power source is not specified.
- 2) You must meet the requirement to turn on auxiliary lights when the “normal car lighting power fails” (e.g. car light circuit failure, travel cable failure, etc.)
- 3) This question is outside of the scope of A17.1.

A17 Committee Approval: April 10, 2002

Inquiry 02-06

Subject: Rule 102.2, Installation of Pipes or Ducts Conveying Gases, Vapors, or Liquids in Hoistways, Machine Rooms, or Machinery Spaces

Edition: A17.1-1996, including through A17.1b-1998 addenda

Question:

This fire rated barrier encloses an area to be primarily used for movement of air to pressurize stairwells in the event of a fire. This assembly runs vertically and is attached to the hoistway wall.

Is a fire-rated barrier assembly as shown in the attached sketch considered to be separating an area from the hoistway, and would be permissible by code, or is it considered to be ductwork with the hoistway, and therefore not permitted unless enclosed in another fire-rated barrier?

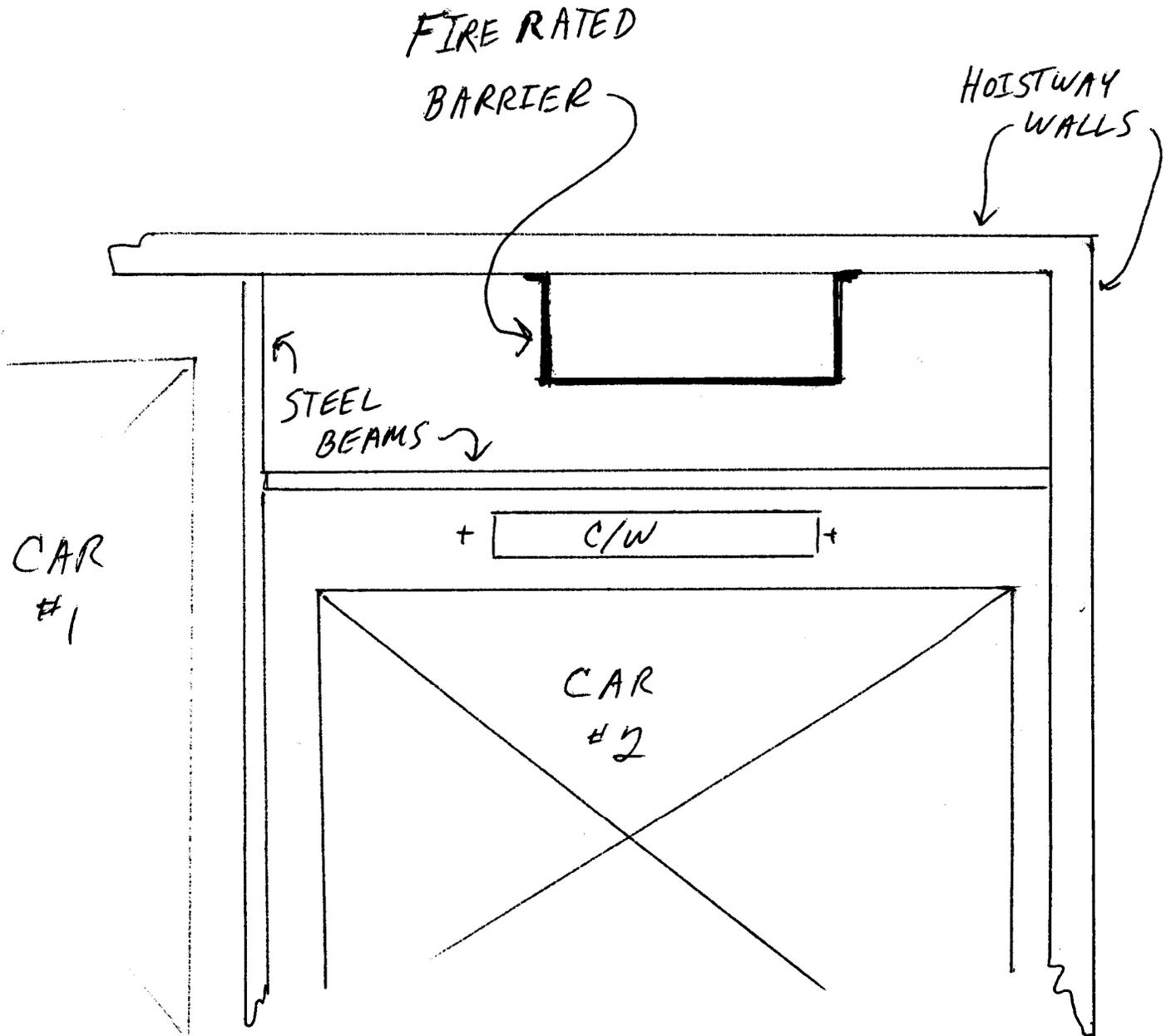
Answer:

Rule 102.2(b) requires the ductwork be separated from the hoistway by a partition.

The partition surrounding the duct must have the same fire-resistive rating as the hoistway enclosure. See Rule 100.1.

A17 Committee Approval: April 10, 2002

Figure for
Inquiry 02-06



Inquiry 02-07

Subject: Requirement 2.3.2, Counterweight Guards

Edition: A17.1-2000

Question:

Requirement 2.3.2.1 states "Metal guards shall be installed in the pit and/or machine room located underneath the hoistway on all open sides of the counterweight runway, except that..."

- 1) What does the code consider to be an "open" side?
- 2) What is the definition of the counterweight runway? The index refers to Section 1.3 for a definition of "runway" however; it doesn't appear to be there.

Answer:

- 1) Any side that you can accidentally come into bodily contact with the counterweight.
- 2) The space in which the counterweight moves.

A17 Committee Approval: April 10, 2002

Inquiry 02-08

Subject: Requirement 2.27.3.2, Phase I Emergency Recall Operation by Fire Alarm Initiating Devices

Edition: A17.1-2000

Question:

The car is: (A) traveling towards the designated level, or (B) has arrived at the designated level, in response to a fire alarm initiating device [FAID] located at a floor other than the designated level.

If in either case, A or B, the FAID at the designated level comes on, is the car required to proceed to the alternate level?

Answer:

No.

A17 Committee Approval: April 10, 2002

Inquiry 02-09

Subject: Requirement 2.27.3.3.4, Phase II Emergency In-Car Operation.

Edition: A17.1-2000

Question:

Requirement 2.27.3.3.4 references requirement 2.27.3.1.6(a), which requires that after the car arrives at the designated level the power operated doors shall open and remain open. According to requirement 2.27.3.3.4, the elevator remains on Phase II operation.

- 1) Which requirement, 2.27.3.1.6(a) or 2.27.3.3.1(d) applies to the opening of the doors upon arrival at the designated level per the Subject requirement?
- 2) If 2.27.3.1.6(a) applies, does it mean that the elevator is momentarily removed from Phase II operation [because there is no permission in the Code for automatic (non-constant pressure) power opening of the door when on Phase II] ?
- 3) If the answer to question 2 is "No, it is not removed...", why is this exception to 2.27.3.1.6(a) not clearly stated in the Code?
- 4) If the Phase II Emergency In-Car Operation switch is turned back to the ON position before it reaches the designated level, will the elevator return to Phase II and will the firefighter still regain full control of the elevator?
- 5) Assuming that the recall switch at the designated level is in "OFF" position when the car arrives at that level and stays there with doors open to find out what happens with the car's operational status, whether Phase II or normal operation,
 - (a) per reading requirement 2.27.3.3.5, is it correct that the car must have been removed from Phase II operation, and consequently it is on normal operation.
 - (b) per reading the 2nd paragraph of 2.27.3.3, which ends "except as required by 2.27.3.3.4", which is the subject rule of this inquiry. From this rule it is concluded that the car should not have been removed from Phase II operation and would remain indefinitely on Phase II operation, until some action is taken.

Answer:

- 1) 2.27.3.1.6 (a) applies. 2.27.3.3.1(d) applies only when the key is 'on.'
- 2) No, the car remains on Phase II until it reaches the recall level and the doors fully open. At that point 2.27.3.3.5 and 2.27.3.3 second paragraph apply. Therefore, if Phase II key is off and Phase I key is on, then the car goes to Phase I. If Phase II key has been turned back on, car remains on Phase II. If Phase I and Phase II are both off, car returns to normal operation.
- 3) See answer to 2).
- 4) No, the on position only takes effect when the doors are fully open (2.27.3.3 second paragraph).
- 5a) Yes, it is on normal, see answer 2).
- 5b) No, it is on normal, see answer 2).

A17 Committee Approval: April 10, 2002

Inquiry 02-10

Subject: Requirement 2.27.5.3, Firefighters' Emergency Operation — Automatic Elevators With Designated-Attendant Operation

Edition: A17.1-2000

Question:

Since this requirement specifies a special mode of "attendant operation", referred to as the HOSPITAL SERVICE, in relation to Phase I and II operation, how do the emergency personnel or firefighters [and also the attendant in the car] know that the specific elevator is equipped with operation control for "hospital service"?

Answer:

The code does not address this issue. There is no safety reason to address this issue.

A17 Committee Approval: April 10, 2002

Inquiry 02-12

Subject: Requirement 8.6.8.4.1

Edition: A17.1-2000

Question:

This rule requires that combs with any broken teeth must be replaced or repaired. However, it seems to permit continued operation of an escalator for extended periods with numerous missing teeth (theoretically every other one) as long as there are none that are adjacent to each other. Is the code condoning continued operation of escalators with missing teeth for extended periods?

Answer:

No.

A17 Committee Approval: April 10, 2002

Inquiry 02-14

Subject: Requirement 8.6.3.6

Edition: A17.1-2000

Question:

Do all replacement governors need to comply with requirement 2.18 as referenced by requirement 8.6.3.6?

Answer:

Yes.

A17 Committee Approval: April 10, 2002

Interpretations Approved at the June 2002 A17 Standards Committee Meeting

Inquiry 01-22

Subject: Rule 1002.3a of A17.1 – 1996 (Car and Counterweight Safeties)
Item 5.10.2(e)(6) of A17.2.2 – 1997 (Car Safety)

Question:

Can the five-year test requirements be accomplished by overspeeding the car to test the governor and safety?

Answer:

No. Rule 1002.3a states in part “Test shall be made by tripping the governor by hand at the rated speed.”

Section 3 defines “shall” as “indicates a mandatory requirement”.

A17 Committee Approval: June 24, 2002

Inquiry 01-26

Subject: Low Oil Protection

Edition: 3.26.9 of ASME A17.1 – 2000

Background:

3.26.9 requires that when the car has arrived at the landing, the doors open then, after a period of time, close. This rule does not specify if this operation can be performed by an authorized person or if the doors must be power operated and capable of automatically closing. Rule 2.11.2 permits a variety of doors, both manual and power. Rule 2.11.3.2 requires only horizontal slide doors to be closed when the car is at the landing and there is an exception to this when the car is operated by a designated attendant. Rule 2.27.3.1.6 (d)(3) includes provisions for closing doors of a type that will not automatically close during firefighters service Phase I recall.

Question:

- (1) For freight elevators that must be operated by authorized persons (see 2.16.5.1), can the doors be opened and closed by the action of the authorized person, instead of automatically?
- (2) For any elevator that is operated by a designated attendant in the car, can the doors be opened and closed by the action of the designated attendant, instead of automatically?
- (3) For freight elevators authorized to carry passengers and not accessible to the general public (2.16.4), can the doors be opened and closed by the action of the authorized person, instead of automatically?
- (4) For passenger elevators that are usable by the general public and do not require a designated attendant to operate the car, must the doors be power operated and capable of automatically opening and closing without intervention by some person?

Answer:

This requirement does not address manual or continuous pressure operated doors.

A17 Committee Approval: June 24, 2002

Inquiry 01-30

Subject: Interruption of Power

Edition: Rule 211.3d of A17.1-1996

Question:

Rule 211.3d states "Upon the resumption of power (normal, emergency, or standby), the car may to move to reestablish absolute car position." We interpret this to mean that regardless of whether the car was already at the designated level with the doors open on phase I operation, or at any floor chosen by the firefighters on phase II operation, or in flight during phase I or II operation, if power is lost and the computer requires the car to move to either the top or bottom floor to "find itself" (reestablish absolute car position) following resumption of power, this is permissible according to this Rule, as long as the car moves back to the floor at which it was located before the power was lost.

Is our interpretation correct? If not, please explain what is permitted by this Rule.

Answer:

See response to Inquiry 02-01.

A17 Committee Approval: June 24, 2002

Inquiry 01-44

Subject: Inspection and Test Requirements for Altered Installations

Edition: Rule 1006.3 of ASME A17.1 – 1996, including A17.1d-2000

Background:

When referring to Rule 1006.3(i), (j), (n) and (o) each of these alterations requires compliance with Rule 1006.2. Referring to Rule 1006.2h, you find that it requires that "each entrance frame, door and hardware shall be checked for label(s) conforming to the requirements of Rule 300.11 and 110.15 (Item 4.2.3)."

Question:

- 1) Does this mean that whenever any alteration listed under Rules 1006.3(i), (j), (n) and (o) is made you must also comply with Rule 1006.2h?
- 2) If the answer to question (1) is "Yes" does this mean that the existing doors, frames and hardware have to be labeled or be replaced?
- 3) If the answer to question (2) is "Yes" where is that requirement mandated in Section 1203 for the alterations referred to in Rules 106.3(i), (j), (n) and (o)?

Answer:

- 1) Rule 1006.2 does not require that all doors be labeled. When labels are required by the code, Rule 1006.2 specifies that the presence of the label be checked.
- 2) No.
- 3) See answer to question (2).

A17 Committee Approval: June 24, 2002

Inquiry 01-57

Subject: Access to Pits

Edition: Requirement 2.2.4.2 of A17.1-2000

Question:

Item 2.2.4.2 now requires that the door lock must be within a reach of not more than 1000-mm as measured horizontally from the pit ladder. The intent of this rule is clear. However, it is unclear as to how compliance is to be achieved.

Since the pit ladder is not required to extend more than 1200-mm above the bottom sill landing, and since most door locks will range in a height above the landing from about 1200 through 2000 mm, where is the horizontal measurement to be taken?

- a) from the vertical plane of the door lock with respect to the pit ladder;
- b) taken directly from the door lock to the nearest point on the pit ladder; or
- c) will the industry be expected to “redesign” door unlocking mechanisms to comply with this requirement?

Answer:

Your question does not reflect what the code states. Requirement 2.2.4.2 states that “the means to unlock” must be within the 1000 mm (39 in.) measured horizontally from the ladder. The code is written in performance language and does not specify how compliance is to be achieved.

A17 Committee Approval: June 24, 2002

Inquiry 01-59

Subject: Safety Stopping Distances

Edition: Rules 1002.3(a)(1), 1002.3(f) and 1207.2 of ASME A17.1 - 1996

Background:

- A) The existing wedge clamp safeties on the elevator were installed prior to A17.1-1955 edition of the Code and were not replaced during the alteration.
- B) The elevator was recently altered in compliance with Rule 1201.2a, 1201.3, 1201.10e, 1202.5, 1202.7, 1202.9, 1202.11, 1202.12a, 1202.12e and 1202.13.
- C) The governor was replaced as part of the alteration.
- D) The governor rope was changes and is of the same size, material and construction as originally furnished.

Questions:

- 1) Prior to the alteration when performing the five (5) year periodic safety test [1002.3a(1)] did the maximum and minimum stopping distances have to conform to the distances specified in Table 2.29.2(e) in ASME A17.2.1-1996?
- 2) Does Rule 1202.7 require that the safeties conform to the requirements in Rule 205.3 (e.g. safety stopping distances)?
- 3) Upon conclusion of the alteration Rule 1003.3(f) required that the test specified in Rules 1003.2a, 1003.2b and 1003.2d be made. Rule 1003.2(d)(3) requires the safety stopping distances for Type B safeties conform to Rule 205.3:
 - a) Do the existing wedge clamp safeties have to comply with the stopping distances specified in Rule 205.3; or
 - b) The stopping distances specified in the Code at the time original installation (e.g. ASME A17.1-1937 and earlier editions, Rule 216)?
- 4) If the answer to question 3(b) is "yes" is it acceptable if the safety stopping distance for the existing wedge clamp safeties comply with that specified in Rule 205.3.

Answer:

- 1) The maximum and minimum stopping distances shall comply with the Code at the time of installation. This information can be found in Table 2.29.2(e) in ASME A17.2.1-1996.
- 2) No.
- 3a) Yes. Rule 1202.12e(4) requires compliance with Section 205. This would include the safety stopping distance.
- 3b) No. See answer to question 3a.
- 4) See answer to question 3b.

A17 Committee Approval: June 24, 2002

Inquiry 02-15

Subject: Rule 303.2, Wall Thickness
Rule 1302.4, Pipe Design

Edition: ASME A17.1 – 1996 through A17.1d-2000 addenda

Question:

1) Using the stated cut groove diameter data and nominal dimensions of ASTM A53 Grade B, Type E or S, Schedule 40, NPS 2 (2 inch) pipe, would all ASTM A53 Grade B, Type E or S, Schedule 40, NPS 2 (2 inch) pipe be considered compliant with the “1.65 mm + C” requirement of Rule 1302.4 ?

2) Using the stated cut groove data for minimum groove diameter, does pipe conforming to the overall specification, including permissible variations, of ASTM A53 Grade B, Type E or S, Schedule 40, NPS 2 (2 inch) comply with the stated “1.65 mm + C” requirement of Rule 1302.4 ?

Answer:

The cited specifications are outside the scope of the A17 Code and A17 does not address permissible variations of these specifications. The A17 Code is written in performance language so that the minimum wall thickness of the piping actually installed shall meet the requirements of Rule 1302.4.

A17 Committee Approval: June 24, 2002

Inquiry 02-16

Subject: Rule 2000.6d, Car Illumination

Edition: ASME A17.1 – 1996

Questions:

1(a) In Rule 2000.6(d) what is meant by the term "normal illumination"?

1(b) Can this be the general lighting that enters the hoistway (runway) from outside the enclosure and/or specific lighting for the lift.?

2(a) If "only" this power fails must the auxiliary lighting activate or must ALL power to the building fail for the auxiliary power to activate?

2(b) If the answer is "yes" that if only the illumination power fails that auxiliary lighting must activate, then must there be additional auxiliary lighting installed to provide general lighting on the unit platform? The lighting on some manufactures units which use the same power source to run the lift, power the auxiliary lighting and may not last the required 4 hours if the lift is used, I do not believe this would meet the code.

Answer:

1(a): Normal illumination is the illumination provided under standard operating conditions to meet the lighting requirement of 5 ftc.

1(b): Yes, the “normal illumination” can be either form of lighting provided they meet the illumination requirements.

2(a): The auxiliary lighting must activate when the power that supplies the “normal illumination” fails.

2(b): The auxiliary lighting must provide illumination of 0.2 ftc for 4 hours.

A17 Committee Approval: June 24, 2002

Inquiry 02-18

Subject: Safeties

Edition: Requirement 8.10.2.2.2(bb) of A17.1 – 2000
Rules 1002.3a and 1003.2d of A17.1-1996 including A17.1d-2000
Item 2.29.2(e)(2) and 2.29.3(b) of A17.2.1-1996 including A17.2.1b-1998

Questions:

- (1) Does this provision apply to all Type B safeties or just drum types?
- (2) Does this provision apply to Type C safeties?
- (3) Does this provision apply just to Acceptance Tests or does it also apply to the 5 Year and Category 5 Tests?
- (4) Does this provision apply to counterweight safeties?
- (5) How is the adjustment to the switch supposed to be accomplished? If the switch is to be relocated temporarily, how is the switch supposed to be secured during the test? Most switches come pre-mounted on the plank or crosshead with bolts through predrilled holes.

Answer:

- (1) Yes, it applies to both.
- (2) Yes.
- (3) Yes, it applies to both.
- (4) No.
- (5) This issue is not addressed in the Code or the Inspections Manual.

A17 Committee Approval: June 24, 2002

Inquiry 02-19

Subject: Rule 204.2b, Openings Prohibited

Edition: A17.1-1996

Question:

- 1) Are access panels used for the cleaning of car enclosure glass considered access panels for maintenance as defined in the A17.1 Code?
- 2) Are access panels that meet the requirements of Rule 204.2b(6) permitted for cleaning of car enclosure glass?

Answer:

- 1) Access panels for cleaning glass were not specifically addressed in the A17.1 Code until the 2000 edition.
- 2) This is subject to the approval of the authority having jurisdiction.

A17 Committee Approval: June 24, 2002

Inquiry 02-21

Subject: Rule 303.2b, Threading

Edition: ASME A17.1 – 1996

Question:

If the existing condition of the oil line piping met A17.1-1996 Code requirements, would piping that was altered by adding a scheduled 40 threaded section need to be upgraded to a Schedule 80 piping when cylinders are replaced?

Answer:

No. Rule 303.2b allows the threading of piping that is Schedule 40 or greater.

A17 Committee Approval: June 24, 2002

Inquiry 02-23

Subject: Requirement 2.11.7.1, Vision Panels

Edition: A17.1-2000

Question:

Does Rule 2.11.7.1 require “Vision Panels” on automatic side slide doors except at floors where a hall position indicator is provided?

Answer:

No. See definition of “door or gate, manually operated” and “door or gate, self-closing”. Vision panels are not required in power-operated doors.

A17 Committee Approval: June 24, 2002

Inquiry 02-25

Subject: Requirement 3.26.9, Low Oil Protection

Edition: ASME A17.1 – 2000

Question:

Are you required to provide both “direct sensing of liquid level” and “a pump run-timer”?

Answer:

No.

A17 Committee Approval: June 24, 2002

Inquiry 02-26

Subject: Requirement 2.2.4.2, Access to Pits

Edition: A17.1-2000 including A17.1a-2002

Question:

Requirement 2.2.4.2, regarding pit ladder width, states that "When unavoidable obstructions are encountered, the width shall be permitted to be decreased to less than 400 mm (16in.)". Regarding the clear distance behind the pit ladder rungs, the requirement states the "When unavoidable obstructions are encountered, this distance may be reduced to 115 mm (4.5 in.)".

Are the following considered to be unavoidable obstructions:

- 1) Pit or hoistway wall/divider beams?
- 2) Elevator leveling devices, electrical raceways, ducts, conduit, pit switches etc.?
- 3) Governor tension sheave?
- 4) Guide rail location or positions?
- 5) Guide rail bracket?
- 6) Hoistway landing sill/struts?
- 7) Safety pickup arm?
- 8) Cab, platform or sling components?

Answer:

Yes, where the required dimensions cannot be provided.

A17 Committee Approval: June 24, 2002

Inquiry 02-27

Subject: Rule 805.3f, Skirt Obstruction Device

Edition: A17.1-1996

Question:

Rule 802.3f requires that a skirt panel not deflect more than 1/16 inch under a 150 lb. load.

Rule 805.3f requires activation of the skirt obstruction device if an object becomes caught between the step and skirt panel.

If an escalator requires deflection of the skirt panels to activate the skirt obstruction device, is it required by the Code that the skirt panel must not deflect more than 1/16 inch in order to activate the skirt obstruction device?

Answer:

No. The two requirements are independent of each other.

A17 Committee Approval: June 24, 2002

Inquiry 02-28

Subject: Rule 210.1d, Inspection Operation

Edition: A17.1-1996

Background:

Rule 210.1d(2)(b) requires that power door operating devices must be inoperative when on top-of-car operation.

Inquiry 01-32 was answered in part by indicating that when on top of car operation it is permissible for the door to close if it is manually opened past the door close limit. It also referred to Inquiry 89-9, which indicated that power was permitted to remain on the door as long as the car door was inoperative in order to keep the door from sagging.

Rule 210.1d(2)(e) indicates that separate additional means of the continuous pressure type may be provided to make power door operating devices operative when on top-of-car operation for testing purposes.

Question:

- 1) After the car is placed on top of car operation is the door permitted to re-close automatically after it is opened manually past the door close limit or may it only close under the control of a continuous pressure device?
- 2) Please enumerate the power door operating devices that are referred to in Rule 210.1d(2)(b).

Answer:

- 1) Either is permitted. See answer to question 1 in Inquiry 01-32.
- 2) The power door operating devices referred to in Rule 210.1d(2)(b) are the momentary pressure switches referenced in Rules 112.3c(2) or 112.3d(4), the "door open" button; and the door close button referenced in Rule 211.3c(1)(d).

A17 Committee Approval: June 24, 2002

Inquiry 02-29

Subject: Rule 100.6(b)(4), Setbacks in Hoistway Enclosures

Edition: A17.1-1996

Question:

Rule 100.6(b)(4) requires the tops of setbacks in hoistway enclosure walls to be beveled at an angle of not less than 75 degrees with the horizontal. Does the Rule apply to the setback of a beam web from the edge of the beam flange, if the beam flange is otherwise flush with the hoistway enclosure wall? (See drawing attached)

Answer:

The drawing illustrates a recess. Rule 100.6(b)(1) applies to recesses.

A17 Committee Approval: June 24, 2002

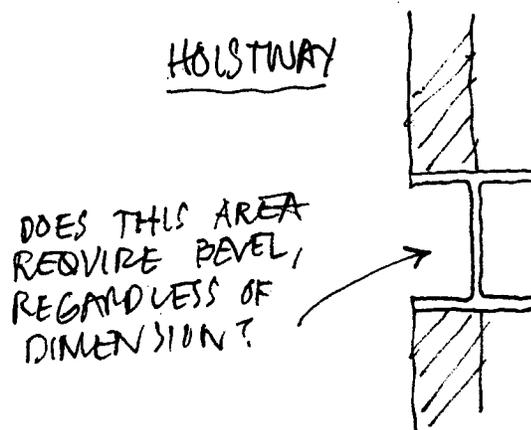
Inquiry 02-29

I would like to request an interpretation of the Safety Code for Elevators and Escalators.

Subject: Rule 100.6(b)(4)
Setbacks in hoistway enclosure walls

Edition: A17.1, 1996

Question: Rule 100.6(b)(4) requires the tops of setbacks in hoistway enclosure walls to be beveled at an angle of not less than 75 degrees with the horizontal. Is this intended to apply to the setback of a beam web from the edge of the beam flange, if the beam flange is otherwise flush with the hoistway enclosure wall? (See drawing)



Inquiry 02-37

Subject: Rule 300.3

Edition: ASME A17.1 – 1996

Question:

1) For a situation with a common machine room and a common hoistway in a two (2) car elevator bank; does the Code allow the running of pipe and wire duct through the hydraulic elevator pit closest to the machine room to get to the second elevator, which is furthest from the machine room? The pipe and wire duct in questions are used directly in connection with this elevator.

2) Same question for a common hoistway in a two (2) car elevator bank where there is a short concrete block divider, only in the pit to secure the bottom rail brackets, pit ladders, pit switch and light switch. Standard divider beams are being used in the rest of the hoistway.

Answer:

1) Yes.

2) Yes.

A17 Committee Approval: June 24, 2002

Interpretations Approved at the September 2002 A17 Standards Committee Meeting

Inquiry 01-43

Subject: Wedge Rope Sockets

Edition: Requirement 2.20.9.5 of A17.1 – 2000

Question:

1) Rule 2.20.9.5.1 requires that a wedge rope socket specimen must be subjected to a destructive tensile engineering test. This rule also contains the first criteria for assessing the test results: " The rope socketing shall develop at least 80% of the ultimate breaking strength of the rope... without rope slipping through the assembly".

[1a] Is only one test on one specimen required?

[1b] Is the rope used in the test expected to be assembled with the wedge specimen as shown in figure 2.20.9.5, including the number and type of retaining clips as intended for an actual elevator installation?

2) Rule 2.20.9.5.2 gives the second criteria for assessing the results of the test required in 2.20.9.5.1: "Wedge socket assemblies shall be of such a strength that when tested as in 2.20.9.5.1, the rope shall break before the socket or wedge is materially deformed".

[2a] If, when tested, the rope slipped under a force corresponding to 81% of the ultimate breaking strength of the rope, and did not break, is it necessary to continue the test to verify compliance with the criteria in 2.20.9.5.2 ("rope shall break etc ")?

[2b] If the answer in [2a] is YES, the question is - how to achieve "breaking of the rope" if the rope is permitted to slip out of assembly? Note: Rope slippage would make the criteria in 2.20.9.5.2 impossible to verify.

[2c] If the answer in [2a] is NO (it is not necessary to continue the test), then again, why do we have the requirement in 2.20.9.5.2?

(3) What is the minimum strength of the suspension-rope fastenings, such as wedge sockets, that the Code requires? Is it?

[a] Minimum 80% of the rope ultimate breaking strength, as implied in 2.20.9.5.1? or

[b] Minimum 100% of the rope ultimate breaking strength, as implied in 2.20.9.5.2?

Answer:

(1a) Yes.

(1b) Yes.

(2a) No.

(2b) See (2a)

(2c) The Code requires that the ultimate failure of the suspension means shall not occur in the termination.

(3a) Yes.

(3b) Yes, based on current language.

A17 Committee Approval: September 11, 2002

Inquiry 01-50

Subject: Types of Driving Machines

Edition: Rule 220 of A17.1-1937, Rule 208.1 of A17.1-1996 and
Scope of Part XV of A17.1-1996

Question:

An existing winding drum elevator was built in accordance with the 1937 Code, and the elevator travel cannot be shortened, should it be considered, that in this case, full compliance to Rule 208.1 of A17.1-1996 for the replacement of the winding drum elevator is not practicable or necessary, as it is stated in the Scope of Part XV of the ASME A17.1?

Answer:

A17.1-1996 Rule 1502.9 “Limitation of Load, Speed and Platform Area” includes a reference to Rule 208.1 that provides requirements for winding drum machines. Winding drum machines shall comply with the requirements of Rule 208.1. See also A17.1 – 1996, Section 2.

A17 Committee Approval: September 11, 2002

Inquiry 01-51

Subject: Emergency Brake

Edition: Requirement 2.19.3 of A17.1-2000

Question:

1) The inquirer believes the stops made during inspection operation (2.26.1.4) with the transfer switch [2.26.1.4.1(b)] in the “INSPECTION” position are not the “normal elevator stops” referred to in 2.19.3.2(c). Is this correct?

2) The inquirer also believes that the transfer switch [2.26.1.4.1(b)] must be in the “NORMAL” position before the “normal elevator stops” referred to in 2.19.3.2(c) can occur. Is this correct?

Answer:

1) The A17.1-2000 Code does not address this issue. The operation described is neither required nor prohibited.

2) See response to Question 1.

A17 Committee Approval: September 11, 2002

Inquiry 02-22

Subject: Requirement 2.13.5, Reopening Device for Power-Operated Car Doors or Gates

Edition: A17.1-2000

Question:

If that same device as described in Inquiries 85-43 and 99-05 (i.e. a device that has an active zone conforming to body dimensions) is used on a vertical slide-up to open car door, is it in compliance with 2.13.5?

Answer:

Yes.

A17 Committee Approval: September 11, 2002

Inquiry 02-24

Subject: Requirement 2.19.3, Table F1 and F2, Emergency Brake

Edition: A17.1-2000

Question:

The A17.1-2000 edition is quite clear that when the “ascending car overspeed device (see 2.19.1.2(b)/2.26.2.29)” or the “unintended car movement device (see 2.19.2.2(b)/2.26.2.30)” are activated (operated, opened) that the “emergency brake,” required by 2.19.3 be applied (also see 1.3, Table F1 and Figures F1 & F2).

- 1) Can the “emergency brake” also be applied to a moving braking surface when any of the other “electrical protective devices (see 2.26.2)” are activated (operated, opened)?
- 2) If the answer to the question is “yes”, might the reliability of the “emergency brake” be compromised when most needed to protect against the failure mechanisms described in 2.19.1.1 and 2.19.2.1?

Answer:

- 1) The A17.1-2000 Code does not address this issue. The operation described is neither required nor prohibited.
- 2) See response to Question 1.

A17 Committee Approval: September 11, 2002

Inquiry 02-30

Subject: Rule 206.3, Sealing and Painting of Speed Governor
Rule 206.4, Speed-Governor Overspeed and Car-Safety-Mechanism
Switches

Edition: A17.1-1996 including A17.1d-2000

Question:

- 1) Is the means of adjustment for the governor overspeed switch setting required to be sealed?
- 2) Is the means of adjustment for the governor jaw tripping setting required to be sealed?

Answer:

- 1) No.
- 2) Yes.

A17 Committee Approval: September 11, 2002

Inquiry 02-31

Subject: Requirement 2.23.9.3, Bracket Fastenings

Edition: A17.1-2000

Question:

In regards to the new requirement requiring rail brackets with slotted fastenings to be pinned:

- 1) Would the bracket shown in FIGURE A require pinning, or is this considered a double bolt fastening bracket and therefore excluded from the requirement?
- 2) Would the bracket shown in FIGURE B require pinning, or is this considered a double bolt-fastening bracket and therefore excluded from the requirement?
- 3) If the bracket shown in FIGURE B does not meet requirements, does the bracket shown in FIGURE C meet them?
- 4) The bracket shown in FIGURE D shows fastening to the wall.
 - a) Are connections to the wall subject to the same rules?
 - b) Would these connections need to be pinned if we are fastening to unistrut?
 - c) Stud anchors?
- 5) The bracket shown in FIGURE E shows a double fastening to the wall.
 - a) Would these connections need to be pinned if we are fastening to unistrut?
 - b) Stud anchors?
- 6) The bracket shown in FIGURE F shows fastening to the rail.
 - a) Are connections to the rail subject to the same rules?
 - b) Would these connections need to be pinned?

NOTE: The figures represent generic structural arrangements utilized by the elevator industry, and are not proprietary, etc.

Answer:

The Rule is clear as written. ASME does not address specific designs.

A17 Committee Approval: September 11, 2002

Inquiry 02-34

Subject: Section 2.19, Ascending Car Overspeed and Unintended Car Movement Protection

Edition: A17.1-2000

Question:

- 1) Is it permitted to activate the emergency brake for an overspeed condition in the down direction?
- 2) When the emergency brake is activated during overspeed conditions, is compound braking (i.e. simultaneous activation of the mechanical safety and the emergency brake) permitted?

Answer:

- 1) The A17.1-2000 Code does not address this issue. The operation described is neither required nor prohibited.
- 2) See response to Question 1.

A17 Committee Approval: September 11, 2002

Inquiry 02-35

Subject: Rule 209.3e, Additional Req. for Winding Drum Machines

Edition: A17.1-1987

Question:

- 1) Does the mainline wiring from the disconnect switch on the wall to the machine have to be opened when over-travel from the drum has occurred?
- 2) Is the mainline circuit, referred to in Rule 209.3e, the wiring on the controller for the final limit circuit?

Answer:

- 1) Rule 209.3e(2) requires that the main-line circuit to the driving-machine motor and the circuit of the driving-machine brake coil shall be directly opened either by the contacts of the machine stop switch or by stopping switches mounted in the hoistway and operated by a cam attached to the car. This switch is separate from the final terminal-stopping switch required by Rule 209.3b.
- 2) No. The mainline circuit is the power circuit to the driving machine motor and brake.

A17 Committee Approval: September 11, 2002

Inquiry 02-39

Subject: Driving Machines: General Requirements

Edition: Requirement 5.3.1.16.2 of A17.1 – 2000 including A17.1a-2002

Question:

Under 5.3.1.16.2(b)(1)(b) “21 times the diameter for wire suspensions means...” is the diameter being referred to the true diameter or the pitch diameter referred to under 2.24.2.2 Minimum Pitch Diameter. “Sheaves and drums used with suspension and compensating ropes...”?

Answer:

The referenced diameter is the pitch diameter.

A17 Committee Approval: September 11, 2002

Inquiry 02-40

Subject: Materials for Car Frames and Platform Frames

Edition: Requirement 2.15.6.4 of A17.1 – 2000

Question:

Is OSB, Oriented Strand Board, which has passed Voluntary Product Standards PS 2-92 and CSA 0325 a suitable material for use as a sub-floor on hydraulic elevator platforms?

Answer:

No. Requirement 2.15.6.4(c) requires that the material complies with ANSI Voluntary Standard PS1 or CSA O151.

A17 Committee Approval: September 11, 2002

Inquiry 02-42

Subject: Electrical Equipment and Wiring

Edition: Rule 210.4 of A17.1 – 1996

Question:

- (1) Is a hoistway limit switch required to have the CSA-B44.1/AMSE 17.5 designation listed on each device?
- (2) If the answer to number 1. is yes, would a CSA, UL or UL equivalent be sufficient?
- (3) Would this apply to door locks?
- (4) Would this apply to electrical door restriction devices?

Answer:

- 1) Requirements for listing/certifying or labeling/marketing of hoistway limit switches are not addressed by the Code.
- 2) See answer to (1)
- 3) No. Hoistway door interlocks and door gate switches have their own requirements. See Rule 111.6 of A17.1-1996 and Clause 1.3 of B44.1/A17.5-1996.
- 4) Requirements for listing/certifying or labeling/marketing of electrical door restriction devices are not addressed by the Code. See Inquiry 00-30.

A17 Committee Approval: September 11, 2002

Inquiry 02-46

Subject: Final Terminal Stopping Devices

Edition: Rule 209.3b of A17.1 – 1996

Question:

Does this Rule require that the car or counterweight must come to a stop prior to coming into contact with the buffer, in the case where spring buffers are used?

Answer:

No.

A17 Committee Approval: September 11, 2002

Interpretations Approved at the January 2003 A17 Standards Committee Meeting

Inquiry 01-03

Subject: Rule 102.2(c)(5)
Installations of Pipes or Ducts conveying Gases...

Edition: ASME A17.1 – 1996 including A17.1a-1997

Question:

When the elevator is at the lowest landing there may be electrical equipment and/or wiring below the 4 ft. level. Does that equipment and/or wiring need to comply with the referenced rule?

Answer:

This Code does not address this question.

A17 Committee Approval: January 8, 2003

Inquiry 01-58 (Reconsideration)

Subject: Bottom and Top Car and Counterweight Clearances and Runby

Edition: Rule 1203.1g of A17.1-1996 including A17.1c-1999

Question:

An alteration was made to a two (2) stop; single wall cylindered; holed hydraulic, which was replaced in an existing hoistway, with a two (2) stop holeless hydraulic, retaining existing speed and capacity, hoistway entrances and other salvageable peripheral equipment.

The existing elevator had only 2'-0" refuge space; as required by code at the time of installation. By reducing the inside cab height; and additional 18 1/2" of refuge space was gained; for a total of 41 1/2" of refuge space.

Since Rule 1203.1g states that "Existing clearances may be maintained..." and the clearances were actually increased to the maximum available for the existing hoistway; does the end result meet/or exceed the requirements of 1203.1g?

Answer:

The alteration is considered a change in the location of the driving machine. As such Rule 1203.3e requires the installation to conform to the requirements in Part 3 of the Code.

A17 Committee Approval: April 10, 2002

A17 Committee Approval (reaffirmation): January 8, 2003

Inquiry 02-11

Subject: Section 8.7, Alterations

Edition: ASME A17.1 - 2000

Question:

What is the meaning of the word 'new' in the following rules:

- 1) In Requirement 8.7.2.18 on car and counterweight safeties.
 - a) Does "Installation of a new safeties" means [a] installation of safeties on a car or CWT which was never equipped with a safety?, or/and
 - b) installation of a new safeties to REPLACE the old (existing) safety?
 - c) If the answer to question [b] is NO, does it mean that the capacity and stopping distances of the newly safety need not be tested per Section 8.10?
- 2) In Requirement 8.7.2.3 on counterweights, does installation of a new counterweight also mean REPLACEMENT of an existing counterweight?
- 3) In Requirement 8.7.2.9 on machinery or sheaves beams, does installation of a new beams also mean REPLACEMENT of existing beams?
- 4) In Requirements 8.7.2.10.1 through to 8.7.2.10.4 on entrances and doors, does installation of a new entrance also mean REPLACEMENT of an existing entrance?
- 5) In Requirement 8.7.2.14.1 on NEW cars, does installation of a new car also means REPLACEMENT of an existing car?
- 6) In Requirement 8.7.3.23 on Jack, Plunger, Cylinder, does "installation of a jack or plunger or cylinder as a part of an alteration" in this rule means:
 - a) that the installation of a new jack, plunger or cylinder to replace an existing is not an alteration if it is the only elevator component that is installed [on that day or week?], and consequently need not be tested/verified for compliance with the Code in accordance with Section 8.10?
 - b) that the work described in [1] , however will be considered an alteration if any of the above components is replaced as a part of an alteration of any other elevator component [simultaneously, or during the same day or week?] , e.g. simultaneously with the installation of an auxiliary power operation per 8.7.3.31.9, and in that case the newly installed plunger, cylinder, or jack will have to be subjected to tests specified in 8.10?

Answer:

- 1(a) Yes.
- 1(b) Since the question pertains to Section 8.7, the answer is yes, provided the new equipment does not meet the definition of replacement.
- 1(c) See 1(b).
- 2) Yes. See response to 1(b).
- 3) Yes. See response to 1(b).
- 4) Yes. See response to 1(b).
- 5) Yes. See response to 1(b).
- 6) See requirement 8.6.3.10.

A17 Committee Approval: January 8, 2003

Inquiry 02-20

Subject: Rule 204.1j, Side Emergency Exits

Edition: A17.1-1996

Question:

Rule 204.1j(2)(g) requires that the car door electric contact for a side emergency exit be located so as to be inaccessible from inside the car. Must the contacts be inaccessible from inside the car with the side emergency door in the open and closed positions?

Answer:

The Code does not specify whether the door is in the open or closed position.

A17 Committee Approval: January 8, 2003

Inquiry 02-38

Subject: Restricted Opening of Hoistway Doors and/or Car Doors on Passenger Elevators

Edition: Paragraph 2.7.4 of A17.3 – 1996

Question:

Would door restrictors be required on an existing two-stop hydraulic passenger elevator equipped with front and rear, manually operated, horizontal sliding scissor gates, both of which can be opened at any point in the hoistway?

Answer:

Yes.

A17 Committee Approval: January 8, 2003

Inquiry 02-41

Subject: Phase II Emergency In-Car Operation.

Edition: Requirement 2.27.3.3.2 of A17.1 – 2000

Question:

- 1) Under the conditions stated in 2.27.3.3.2 is the car required to remain at the landing in the case of power failure and subsequent restoration of power?
- 2) After restoration of power with the car remaining at the landing on "HOLD", the Phase II Fire Operation Switch is then turned to either the "OFF" or "ON" position. Is the car permitted to move to re-establish absolute car position exactly as stated in Inquiries 01-30 and 02-01?

Answer:

- 1) Yes.
- 2) Yes.

A17 Committee Approval: January 8, 2003

Inquiry 02-44

Subject: Speed Governors and Governor Ropes

Edition: Rule 1202.7 of A17.1 – 1996

Question:

The bearings in an existing governor have worn to a point where a new governor has to be installed. Would this be considered an alteration or a maintenance, repair or replacement?

Answer:

This is a replacement.

A17 Committee Approval: January 8, 2003

Inquiry 02-45

Subject: 3.26.1, Operating Devices and Control Equipment
3.26.3, Anti-Creep and Leveling Operation

Edition: Requirements 3.26.1 and 3.26.3 of A17.1 – 2000

Question:

(1) 3.26.1(c) states that "Requirement 2.26.1.6 applies as specified by 3.26.3." Nowhere in 3.26.3 does the Code specify compliance with 2.26.1.6.6, which states that elevators with static control must have an independent means of limiting the leveling speed to a maximum of 0.75 m/s (150 ft/min) with the doors open should the normal means to control this speed fail to do so. Although 3.26.3.2 limits the leveling speed on a hydraulic elevator to 0.125 m/s (25 ft/min), there is no reference to an independent means of limiting this speed when static valve controls are used (which would presumably necessitate the use of speed monitoring on hydraulic elevators with static valve control).

(a) Is an independent means of limiting the leveling speed to 0.125 m/s (25 ft/min) required on hydraulic elevators with static valve controls?

(b) If so, is speed monitoring required to ensure the leveling speed is 25 ft/min or less?

(2) 3.26.1 requires operating devices and control equipment to conform to 2.26, and does not exclude requirement 2.26.9.3(c) for hydraulic elevators. Although most hydraulic elevators are limited to speeds of 150 ft/min or less, some are rated for speeds of up to 200 ft/min on normal operation. But as long as there are two separate and independent means of limiting the car speed to 150 ft/min or less during access and inspection, and 25 ft/min or less during leveling, and a single ground or any other single failure will not permit speeds in excess of 150 ft/min, is it necessary to also monitor the car speed (assuming static valve control is not being used in this case)?

Answer:

1a) No.

1b) See answer to a).

2) No.

A17 Committee Approval: January 8, 2003

Inquiry 02-59

Subject: Final Terminal Stopping Devices

Edition: Rule 209.3b of A17.1-1996 including through A17.1b-1998
Requirement 2.25.3.2 of A17.1-2000

Question:

- 1) What is the definition of “normal operating conditions”?
- 2) Would it be a violation of the code if an elevator, while being operated from the car top-operating device (inspection) caused the final terminal stopping device to function when the elevator is stopped by the normal terminal stopping device.

Answer:

- 1) In the context of Rule 209.3b (requirement 2.25.3.2 of A17.1-2000) “normal operating conditions” refers to the operation of the car in response to the normal stopping means and the normal terminal stopping device. See definitions for “normal stopping means” (A17.1-2000), “terminal stopping device, normal” and “control, operation”
- 2) No.

A17 Committee Approval: January 8, 2003

Inquiry 03-01

Subject: Top Car Clearance

Edition: Requirement 5.3.1.3 of A17.1 – 2000

Question:

- (1) Does a private residence elevator traveling at 40ft/min comply with the requirements of 5.3.1.3 if an elevator car at the terminal floor, maintains a minimum of 9 inches vertical distance between the car top and the lowest point of the overhead structure or any other obstruction;
- (2) Would this elevator having a component fastened to the elevator rail system projecting over a portion of the top of the car, maintaining less than 9”, meet the requirement of 5.3.1.3?

Answer:

- 1) Yes.
- 2) No, a minimum of 9 in. must be maintained.

A17 Committee Approval: January 8, 2003

Interpretations Approved at the May 2003 A17 Standards Committee Meeting

Inquiry 01-42

Subject: Car Doors and Gates

Edition: 7.5.1.2.1 of A17.1 – 2000

Question:

1) The Subject rule states “requirement 2.14.4.1 apply to Type A material lifts, where car doors or gates are provided,…”

Requirement 2.14.4.1 does not give any requirement for doors or gates other than “where required”, and reads *–A door shall be provided at each entrance to a passenger car and a door or gate shall be provided at each entrance to a freight car.*

1a) Is a door or gate required to be provided at each entrance to a material lift Type A car?

1b) If the answer is NO, how can a Type A material lift with a voluntarily provided car door or gate meets the requirements in the Subject rule?

2) The Subject rule state “requirement 2.14.4.1 apply to . . . , and to Type B material lifts.” No condition for application of the Subject requirement is given for Type B material lifts.

2a) Is a door or gate required to be provided at each entrance to a material lift Type B car?

2b) If the answer is NO, explain how can one come to such answer by reading the Subject requirement?

Answer:

1) Yes. An errata has been posted on the A17 website to the A17.1-2000 edition and reads as follows:

7.5.1.2.1 Requirement 2.14.4.1 applies to Type A Material Lifts and where car doors or gates are provided for Type B Material Lifts.

2) See response to (1).

A17 Standards Committee Approval: May 7, 2003

Inquiry 02-43

Subject: Speed Governors and Governor Ropes

Edition: Rule 1202.7(a) of A17.1 – 1996

Question:

Would a full-load be required to test a new governor installed on an existing elevator?

Answer:

No. The requirements for inspection and test are contained in Part X. The requirements for inspection and testing of altered (see Section 3 definitions) equipment are in Rule 1003.3. A17.1d-2000 and earlier editions do not have a requirement for testing of governors that have been replaced.

A17 Standards Committee Approval: May 7, 2003

Inquiry 02-44

Subject: Speed Governors and Governor Ropes

Edition: Rule 1202.7 of A17.1 – 1996

Question:

The bearings in an existing governor have worn to a point where a new governor has to be installed. Would this be considered an alteration or a maintenance, repair or replacement?

Answer:

If the new governor is “basically the same” as the existing governor, it is a replacement (see definition). If not, it is an alteration.

A17 Standards Committee Approval: May 7, 2003

Inquiry 02-47

Subject: Firefighters' Service Operating Procedures (Phase II)

Edition: Rule 211.7(b) of A17.1 – 1996

Question:

This Rule requires Fire Phase II operating instructions to be incorporated with or adjacent to the Phase II switch in the car, including the wording shown in Figure 211.7(b).

The wording in Figure 211.7(b) instructs the firefighters to turn the key to "OFF" with the doors open, if they wish to automatically send the car to the recall floor. However, this does not reflect the requirement for power operated vertically sliding doors to be closed only with constant pressure, per Rule 211.3c(3)(b).

Is it permissible to alter the Phase II instructions shown in Figure 211.7(b) to reflect specific Code requirements, such as those mentioned above? For example, to automatically send the car to the recall floor, the firefighters might be instructed as follows: "With doors open, turn key to "OFF"; press and hold door close button". This example includes the required verbiage, and also appends to it more detailed instructions that reflect the specific Code requirements for that particular application. Is this acceptable?

Answer:

The code requires the inclusion of verbiage in Fig. 211.7(b). The code does not address the inclusion of specific additional verbiage.

A17 Standards Committee Approval: May 7, 2003

Inquiry 02-48

Subject: Phase I Emergency Recall Operation by Fire Alarm Initiating Device

Edition: 2.27.3.2.3 (c) of A17.1-2000

Question:

This Requirement states that a fire alarm initiating device installed in the elevator hoistway shall cause all elevators having any equipment in that hoistway, and any associated elevators of a group automatic operation, to be returned non-stop to the designated level, except where the initiating device is installed at or below the lowest landing of recall, in which case the car shall be sent to the upper level of recall.

What should happen in the case where the alternate level of recall is the lowest level of recall, and the hoistway fire alarm initiating device that is activated is installed at the designated level?

Answer:

The activation of a fire alarm initiating device located in the hoistway causes recall to the designated level unless that device is at or below the lowest landing of recall.

A17 Standards Committee Approval: May 7, 2003

Inquiry 02-49

Subject: Cylinders Buried in the Ground

Edition: 3.18.3.8 of A17.1 – 2000

Question:

- 1a) Does ASME A17.1 – 2000 require PVC pipe encapsulation of buried hydraulic cylinders?
- 1b) If PVC pipe encapsulation is used as a method of protection does ASME A17.1 – 2000 require the method to be monitored?
- 2) Do requirements of 3.18.3.8.2(a); and 3.18.3.8.2(c) prohibit sealing the exterior surface of the buried hydraulic cylinder with a water-proof mastic coating as the only method of protection against corrosion?
- 3) Does the (recorded) monitoring of oil loss/use for a buried hydraulic cylinder meet the requirements for “means for monitoring” and ensuring “on-going compliance” of the corrosion protection system?

Answer:

- 1a) No. The Code does not specifically require PVC pipe encapsulation. PVC pipe encapsulation may be one of several acceptable methods that is covered by requirement 3.18.3.8.2, as long as it complies with the requirement of 3.18.3.8.3(b).
- 1b) No. The Code does not require that the encasing material be monitored. The Code requires a means for monitoring any method in accordance to 3.18.3.8.2(a).
- 2) No, as long as requirement 3.18.3.8 is met which requires cylinder protection against the environment and further requires a means to monitor the on-going compliance of that protection method.
- 3) No. The monitoring of oil loss does not ensure or verify that there is on-going compliance of the method for cylinder protection.

A17 Standards Committee Approval: May 7, 2003

Inquiry 02-50

Subject: Step/Skirt Performance Index

Edition: Rule 1206.6c of A17.1d-2000
8.6.8.3 of A17.1-2000

Question:

- 1) Does Inquiry 94-73 apply to ASME A17.1d-2000 and later editions of the Code?
- 2) If the answer is "no" is it permissible under ASME A17.1d-2000 and later editions of the Code to install skirt deflectors on existing escalators installed under ASME A17.1c-1999 and earlier editions?
- 3) Does ASME A17.1d-2000 and later editions of the Code require skirt deflectors on existing escalators installed under ASME A17.1c-1999 and earlier editions when the step/skirt performance index > 0.15 and $= 0.4$?

Answer:

- (1) No.
- (2) Yes.
- (3) Yes.

A17 Committee Approval January 8, 2003
A17 Committee Reaffirmation: May 7, 2003

Inquiry 02-52

Subject: Standby Power Selection Switch

Edition: Rule 211.2(c) of A17.1 – 1996

Question:

When this switch is set to select a particular car (as opposed to being in the "AUTO" position), does the following operation comply with this Rule?

- 1) All cars that were not already stopped at a floor when the power transferred would first be brought sequentially to their nearest respective landings, and the doors cycled.
- 2) Once all cars have stopped at a floor, the selected car will return to the designated landing first.
- 3) Once the selected car has completed its return, the other cars in the group will then be automatically returned, one at a time, to the designated level.
- 4) Once all cars have returned to the designated level, the selected car can be then be run on automatic operation.

Answer:

No

A17 Standards Committee Approval: May 7, 2003

Inquiry 02-55

Subject: Firefighters emergency Operation – Automatic Elevators

Edition: Requirement 2.27.3 of A17.2-2000

Background:

A building does not have an additional fire control station “FIRE RECALL” key switch. The elevator(s) are at the alternate level, doors open, having been recalled there as a result of the fire alarms initiating device at the designated level being active.

Question:

- 1) The fire alarm initiating device at the designated level continues to be active. Under this condition, is it a requirement of 2.27.3.1.6(j) and 2.27.3.2.4 to prohibit the “FIRE RECALL” key switch at the designated level from recalling the car to the designated level?
- 2) The fire alarm initiating device at the designated level has been cleared and is no longer active. Does the code require the “FIRE RECALL” key switch to first be turned to the “RESET” position before this switch can be effective to recall the elevators to the designated level by turning it to the “ON” position?

Answer:

- 1) No
- 2) No

A17 Standards Committee Approval: May 7, 2003

Inquiry 02-56

Subject: Alteration

Edition: Requirements 8.7.2.10.2, 8.7.2.10.3, 8.7.2.10.4
A17.1-2000 up to and including A17.1a-2002

Question:

The second sentence indicates that:

“New components that are installed shall conform as follows:

- (a) Landing sills shall conform...
- (b) Hanger tracks and track supports shall conform...
- (c) Entrance frames shall conform...
- (d) Hangers shall conform...
- (e) Panels shall comply ...
- (f) Door safety retainers shall conform...

- (1) Does this mean that the addition/installation/replacement of these components is deemed an ALTERATION?
- (2) Is the addition/installation/replacement of these components is permitted under the category of Maintenance, Repair or Replacement?
- (3) Is the same true for the second sentences in requirements 8.7.2.10.3 and 8.7.2.10.4, that those items are Alterations and are not permitted under the category of Maintenance, Repair or Replacement?

Answer:

- (1) Yes for a new entrances
- (2) Yes for an existing entrances.
- (3) See response to questions (1) and (2).

A17 Standards Committee Approval: May 7, 2003

Inquiry 02-57

Subject: Alteration

Edition: Requirement 8.7.2.13, A17.1-2000 up to and including A17.1a -2002

Question:

Is the switch/substitution from a mechanical safety edge to an electronic safety edge intended to be covered by the wording in 8.7.2.13 "where a reopening device... is altered or added" even though the mechanical edge was not altered, nor was a reopening device added since the elevator originally had an edge?

If the answer is "Yes" [switch from mechanical to electronic edge is an alteration] should the wording not be clarified?

If the answer is "No" is this a Maintenance/Repair/Replacement issue? [With important features of 2.13.4 & 2.13.5 overlooked.]

Answer:

This issue is addressed in Inquiry 03-10.

A17 Standards Committee Approval: May 7, 2003

Inquiry 02-58

Subject: Single Short Circuit Affecting Final and Normal Terminal Stopping Devices

Edition: 2.25.3.4 of A17.1 – 2000

Question:

1. How can a single short circuit prevent "both circuits" if only one circuit, either " Normal Terminal Stopping Device or Final Terminal Stopping Device" is short-circuited?
2. Assuming that "or" is replaced with "and", which single short circuit must be taken into consideration:
 - 2.1 Resulting from equipment's failure, e.g. deterioration of wiring insulation or deliberate act, e.g. installed jumpers?
 - 2.2 Short circuit between the devices?
 - 2.3 Short circuit between wiring and/or terminals inside controller?
 - 2.4 Short circuit between wires of circuits incorporating the devices throughout the elevator installation irrespective of the level of conductors' insulation and their compliance with applicable electric codes and standards?
3. What is the meaning of term "control" which must not prevent Normal Terminal Stopping Device and/or Final Terminal Stopping Device circuits from stopping the car in the case of a single short circuit?
4. Since this requirement had been introduced when technologies and protective measures used in elevators as well as the applied safety standards were quite different from the current ones, should the same Code requirement still be applicable to the new elevators incorporating multiple levels of car-speed monitoring and control systems and sophisticated protective measures provided in accordance with much advanced safety requirements specified in the current A17.1 Code?

Answer:

1. It is possible that someone could consider the Normal Terminal Stopping Device and the Final Terminal Stopping Device share a common circuit, which could be made ineffective by a single short circuit. Compliance with the provisions of this requirement would preclude them from doing so.
2. All single short circuits must be considered that prevent both the normal and final terminal-stopping device circuits from stopping the car.
3. "Control" as used here is the elevator "motion control".
4. Yes.

A17 Standards Committee Approval: May 7, 2003

Inquiry 03-03

Subject: Requirement 8.6.1.4, Maintenance Records

Edition: ASME A17.1 – 2000

Question:

Does requirement 8.6.1.4 require maintenance records be available immediately? Or does it mean within another time limit?

Answer:

This is not addressed by the Code.

A17 Standards Committee Approval: May 7, 2003

Inquiry 03-07

Subject: Bottom Car Clearance

Edition: Rule 300.8(a)(3) of A17.1-1996

Background:

The referenced rule allows two specific refuge space geometries:

(i) 24 H x 24 W x 47 L = 27027 in³

(ii) 42 H x 18 W x 36 L = 27216 in³

Question:

Would dimensions 32 H x 21 W x 41L = 27552 in³ be allowed by Rule 300.8(a)(3)?

Answer:

No. The Code is very specific in these requirements.

A17 Standards Committee Approval: May 7, 2003

Inquiry 03-08

Subject: Step Demarcation Lights

Edition: 6.1.6.7 of A17.1-2000

Question:

May a light source of equivalent luminescence and color, as such low-voltage incandescent lights or light emitting diodes, be installed in lieu of “fluorescent light fixtures”?

Answer:

No. The present rule specifically required fluorescent lights.

A17 Standards Committee Approval: May 7, 2003

Inquiry 03-09

Subject: Walking on Stopped Escalators

Edition: Part VIII of A17.1-1996 through A17.d-2000
Section 6.1 of A17.1-2000 through A17.1a-2002

Question:

- 1) Does the code prohibit the public from walking on escalators that are not running?
- 2) Does the code prohibit the public from walking on escalators that are shut down due to a safety device?

Proposed Answer:

- 1) The A17.1 Code does not address this issue.
- 2) The A17.1 Code does not address this issue.

A17 Standards Committee Approval: May 7, 2003

Inquiry 03-10

Subject: Replacement of Door Reopening Device

Edition: 8.6.3.8 of A17.1-2000

Question:

This question originates from the cited code referring you to 8.7.2.13.

- 1) Based on the definitions in section 1.3 of replacement versus alteration, if you replace a mechanical safety edge with an electronic infrared curtain is this an alteration or a replacement?
- 2) Based on the same situation if you replace a mechanical safety edge with a mechanical safety edge is this an alteration or a replacement?

Answer:

- 1) It is a replacement. The replacement shall comply with the requirements of 8.7.2.13.
- 2) It is a replacement. The replacement shall comply with the requirements of 8.7.2.13.

A17 Standards Committee Approval: May 7, 2003

Inquiry 03-12

Subject: Door Position Monitoring

Edition: 2.26.5(b) of A17.1-2000
Rule 210.15(b) of A17.1-1996

Question:

It has been argued by Elevator Inspectors in certain jurisdictions that this requirement does not apply during Fire Phase II operation. It is their contention that if the hoistway doors fail to couple with the car gate when the firefighters open the car door on Fire Phase II operation, they should have the option of closing the car door and either trying again or moving the car to a different landing.

Is compliance with Rule 210.15(b) or Requirement 2.26.5(b) required during Fire Phase II operation?

Answer:

Yes.

A17 Standards Committee Approval: May 7, 2003

Interpretations Approved at the October 2003 A17 Standards Committee Meeting

Inquiry 96-71

Subject: Rule 110.11h
Hoistway Door Safety Retainers

Edition: A17.1 - 1993

Question:

(1) Does a mechanically fastened door gib with multiple retaining means meet the requirements of the Rule? We use two separate gibs on each door which have a phenolic guide plus two full depth steel barrel nuts on each gib plus two bent down full depth steel tabs on each. This is three means of retaining the door on the sill groove.

(2) The Rule also requires the door meet the right angle and upwards force criteria described. The door with the retaining means device(s) can be tested by a door manufacturer for the right angle requirement but in order to meet the upwards force door, the hanger and installation into the sill groove must be tested as an assembly. The door hanger would have as much effect as the door. In addition, there are many different types and manufacturers of hangers used on new installations not to mention the number of replacement doors made which use existing hangers. Please clarify if this is the intent of this Rule?

Answer:

(1) No. It is the intent of this Rule that a separate item be provided to meet these requirements. Rule 110.11h defines requirements for Hoistway Door Safety Retainers and failure of primary guiding means in performance language. ASME A17.1 does not define door gib(s).

Rule 110.11f defines requirements for bottom guides stating that the bottom of each panel shall be guided by one or more members. The mechanically fastened guiding members attached to the bottom of each panel are the guiding members in their entirety.

(2) It is the intent of the Rule to test the complete assembly which could be done as a type test for new assemblies. For replacement doors ASME A17.1, Rule 1201.10 would apply and does not include a requirement for compliance with Rule 110.11h unless a new entrance is installed.

A17 Committee Approval: June 12, 1997

A17 Committee Reconsideration Approval: October 1, 2003

Inquiry 02-13

Subject: A17.1-2000, Requirement 8.6.1.6.5

Question:

This rule requires a fire extinguisher in all electrical machinery and control spaces. Does this apply to escalators, moving walks, dumbwaiters, and material lifts?

Answer:

No, the intent of the requirement was to apply only to elevators.

A17 Committee Approval: October 1, 2003

Inquiry 02-17

Subject: Rule 112.5

Edition: A17.1-1996

Question:

- 1) Is it a violation of A17.1 to have the power supply to the door-reopening device fed from a separate branch circuit when failure of the separate branch circuit prevents the door from closing thereby preventing normal operation of the elevator?
- 2) Would it be a violation of A17.1 if failure of the separate branch circuit power supply to the door reopening device prevents operation under emergency conditions described in Section 211 by preventing the door from closing?

Answer:

- 1) The separate branch circuit is not addressed by the A17.1 Code. Branch circuit requirements are addressed in NFPA 70-1996 Section 620-22(a) {in NFPA 70-2002, see Section 620.22(A) and Section 620.25(A)}, which is referenced in A17.1 Rule 210.4.
- 2) See answer to question (1).

A17 Committee Approval: October 1, 2003

Inquiry 02-53

Subject: Access to Machine Rooms and Machinery Spaces

Edition: Rule 101.3 of A17.1 – 1996

Question:

Permanent noncombustible stairs shall have a maximum angle of 60 deg. from the horizontal, etc. What is the size of the step tread and rise for a 60 deg. ladder, OSHA only covers from 30 to 50 deg?

Answer:

The A17.1 does not have requirements for the step tread and rise. However this issue may be addressed in ANSI A14.3.

A17 Committee Approval: October 1, 2003

Inquiry 02-54

Subject: Cleaning of Glass

Edition: Rule 204.2b of A17.1 – 1996

Questions:

Rule 204.2b prohibits openings or hinged panels or removable panels in a car enclosure, with six exceptions. One exception is for access panels for the *maintenance of equipment*.

Maintenance is defined as a process *for the purpose of ensuring performance in accordance with the applicable Code requirements*.

Since dirty glass car and hoistway panels do not in any way affect an elevator's performance and are not considered equipment, are openings or hinged panels or removable panels in a car enclosure permitted for the purpose of cleaning glass car and hoistway panels?

Answer:

The use of access panels for maintenance (i.e. cleaning of glass) is subject to the approval of the authority having jurisdiction. See also 1206.9.

A17 Committee Approval: October 1, 2003

Inquiry 03-02

Subject: Requirement 2.17.5.2, Type B Safeties
Requirements 2.23.6, Guide Rail Surfaces

Edition: ASME A17.1-2000 including A17.1a-2002

Questions:

- 1) Is a counterweight safety device that engraves a crossed etched pattern on the running surface of the counterweight rails (that cannot be removed with a rail file) during an over speed condition for stopping, conform with the requirements of Sections 2.17.5.2 and 2.23.6? This safety device has hardened knurled rollers which are forced against the rail surface and rotate during the stopping sequence, thereby engraving a deep cross etched or knurled pattern into the rail surface. Traditional safety devices have smooth vertical block surfaces, which engage the rail surface to apply **limited** and uniform **pressure** to the rail surface to realize the dimensional sliding distance required for stopping. This cross etched pattern cannot be removed with a rail file as compared with the smooth surface scraping marks that are left by traditional smooth surface safety blocks. The principle concerns are A) The running surfaces of the rails will be permanently damaged with these crossed etched pattern areas where the safeties may again engage and B) If the counterweight safeties are again engaged in the same physical locations, the coefficient of friction will be a great deal higher on those rail locations and thus dramatically reduce the stopping distance. Therefore, the slide stopping distance of the counterweight safeties will be different dependent upon whether or not the safeties engage a cross etched (knurled) section of the rail or a non-cross etched (non-knurled) section of the rail.
- 2) Section 2.17.5.2 state that the safeties shall apply **limited pressure** on the guide rails during the stopping interval. By definition pressure is the "force or thrust exerted over a surface divided by its area". Engraving a cross etched pattern deeply into the surface of a rail would not be a result of **limited pressure**. Would the magnitude of pressure required to cross etch or knurl the surface of the rail exceed the parameters of **limited pressure** as related in Section 2.17.5.2?
- 3) Over time these rail surfaces will realize an increasing number of areas where these cross etched or knurled patterns will be evident. With these patterns evident on the rail surfaces will Section 2.23.6 be satisfied with regard to the requirement that the rail surfaces shall be "smooth and true within the tolerances required to ensure proper safety application without excessive retardation?"

Answer:

Requirement 2.17.5.2 does not reference rail damage. It only sets stopping distance limits based on governor tripping speed. Requirement 2.23.6 does not address damage imposed on the rail when the safety sets. (See also 8.6.1.2.3).

A17 Committee Approval: October 1, 2003

Inquiry 03-06

Subject: Access to Pits

Edition: Requirement 2.2.4.2 of A17.1-2000 including A17.1a-2002

Question:

- 1) Is a ladder, which meets the requirements of 2.2.4.2, permitted to be mounted in a recess on the hoist way wall?
 - 2) Would this recess containing the ladder meet the requirements of 2.1.6.2?
- See attached sketch for clarification.

Answer:

- 1) Yes
- 2) Yes

A17 Committee Approval: October 1, 2003

Inquiry 03-13

Subject: Suspension Ropes and Their Connections

Edition: 2.20.1 and 7.5.6.1 of A17.1-2000

Background:

Paragraph 2.20.1, for electric elevators, requires wire ropes to have the classification "Elevator Wire Rope". This wire is designed specifically for use on traction type machines.

Paragraph 2.24.1 requires all driving machines to be traction type, except that winding-drum machines shall be permitted for freight elevators, with reservations. There is no apparent recommendation for wire rope to be used on winding drum machines.

Paragraph 7.2.10.1.1, for dumbwaiters and material hoists, states that the [driving machine] requirements of 2.24.1 do not apply.

Paragraph 7.5.6.1, for dumbwaiters and material hoists, states that the requirements of 2.20.1 do not apply.

US Navy and USCG have standardized the wire rope type to be used on elevator systems other than traction type to be nominal 6x37 - IWRC (independent wire rope core) construction.

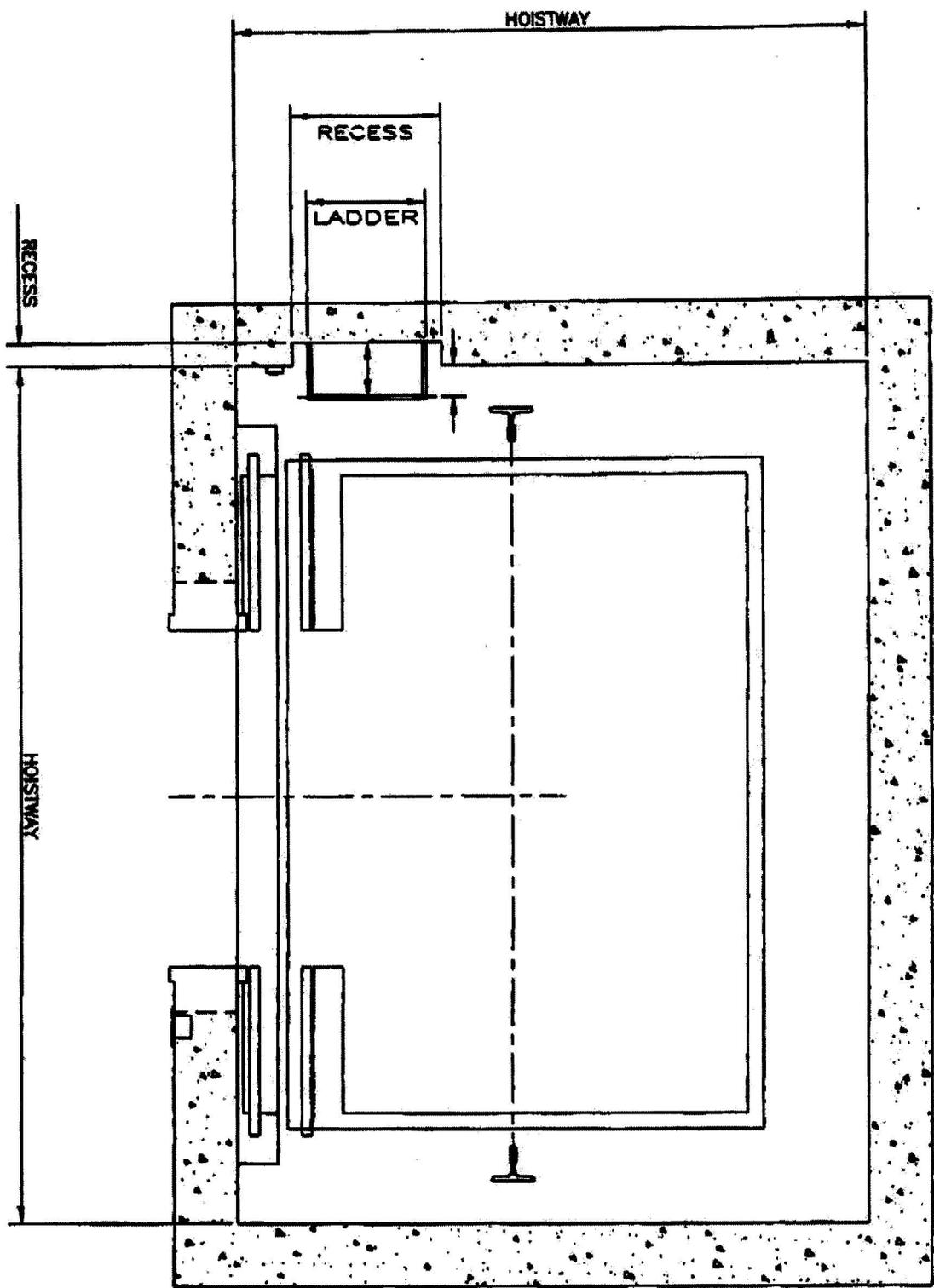
Question:

- 1) Does paragraph 7.5.6.1 permit IWRC [Independent Wire Rope Core] construction wire rope in lieu of Elevator Wire type construction [typically Fiber Core type]?
- 2) Are there types of wire rope construction that are not allowed or not recommended?
- 3) If a dumbwaiter or material hoist utilizes a traction type machine, shouldn't the wire be Elevator Wire type construction, and should paragraph 2.20.1 be invoked?
- 4) Should both paragraph 2.20.1 and 7.5.6.1 be revised to address the types of machines being supported in a consistent manner? Should specific types of wire rope be specified for traction machines and specific types of wire rope be specified for winding drum machines?

Answer:

- 1) Yes.
- 2) No.
- 3) No. See 7.5.6, which is written in performance language.
- 4) See response to question 3.

A17 Committee Approval: October 1, 2003



Inquiry 03-06
Recessed Ladder

Inquiry 03-14

Subject: Electrical Equipment and Wiring

Edition: 2.8.1.2 of A17.1-2000

Question:

- 1) May additional fire alarm appliances located inside an office suite of a municipal building be connected to an existing addressable fire alarm riser located in an elevator hoistway?
- 2) Or, must someone install a separate independent fire alarm riser outside the hoistway for all fire alarm appliances not directly serving the elevator?

Answer:

- 1) No
- 2) See answer to 1.

A17 Committee Approval: October 1, 2003

Inquiry 03-15

Subject: Phase I Emergency Recall Operation

Edition: 2.27.3.1.6(k) and 2.27.3.2.5 of ASME A17.1 - 2000

Background:

An elevator is placed on Phase I Emergency Recall Operation by a fire alarm initiating device at the designated level. Phase I recall to the alternate level is completed.

At this point the Fire Recall key switch(es) is placed in the "ON" position and the elevator is brought to the designated level. The fire alarm initiating device at the designated level is not reset. The Phase II Fire Operation key switch is in the "OFF" position and the car is at the designated landing.

Questions:

- (1) The Fire Recall key switch(es) is placed in the "OFF" position.
 - (a) Does the elevator return to the alternate level?
 - (b) Does the elevator remain at the designated level?
- (2) Assuming only one Fire Recall switch, the Fire Recall key switch in the elevator lobby is rotated to the "RESET" then "OFF" position.
 - (a) Does the elevator return to the alternate level?
 - (b) Does the elevator remain at the designated level?

Answer:

- (1)(a) Yes
- (1)(b) No
- (2)(a) Yes
- (2)(b) No

A17 Committee Approval: October 1, 2003

~~Inquiry 03-17~~

~~Subject: Phase I Emergency Recall Operation by Fire Alarm Initiating Devices
Seismic Operation of Elevators~~

~~Edition: Req 2.27.3.2 and 8.4.10.1.3 of A17.1-2000 including A17.1a-2002~~

~~Question:~~

~~Does a configuration which interrupts Phase I recall and directs the elevator to the nearest available landing, comply with the requirements of 2.27.3.2?~~

~~Answer:~~

~~No.~~

~~A17 Committee Approval: October 1, 2003~~

Inquiry 03-18

Subject: Replacement of Driving Machine

Edition: 8.7.2.25.1(a) of A17.1-2000

Question:

This Requirement states that where a driving machine is installed as part of an alteration, the installation shall conform to 2.7.2.2, 2.9, 2.10.1, 2.19, 2.20, 2.24, and 2.26.8. If the contractor does a direct replacement of the driving machine, with no other changes, does this qualify as being "part of an alteration", or is it considered to be a replacement (which should then be covered under Section 8.6 rather than Section 8.7)?

Answer:

This is considered to be a replacement as defined in Section 1.3. See requirement 8.6.3.1

A17 Committee Approval: October 1, 2003

Inquiry 03-20

Subject: Multisection Doors

Edition: Rule 110.2 and 110.7 of A17.1 – 1996

Questions:

The term multisection door is used in the code (e.g. Rule 110.7, 110.2), but is not defined. Are the following multisection doors?

- (1) center opening single speed doors
- (2) center opening multiple speed doors
- (3) side opening multiple speed doors
- (4) vertical biparting doors
- (5) vertical slide multiple speed doors

Answer:

- (1) Yes
- (2) Yes
- (3) Yes
- (4) Yes
- (5) Yes

A17 Committee Approval: October 1, 2003

Inquiry 03-21

Subject: Overriding Alternate Level Recall

Edition: Requirement 2.27.3.1.6(1 j) of ASME A17.1 - 2000

Question:

This Requirement states that where an additional "FIRE RECALL" switch is provided, both "FIRE RECALL" switches shall be in the "ON" position to recall the elevator to the designated level if the elevator was recalled to the alternate level.

The question is, once both "FIRE RECALL" switches are turned to the "ON" position and the car has completed its return to the designated level (with the main floor sensor still tripped), what should happen if either one of the "FIRE RECALL" switches is then turned to the "OFF" position? If there is a difference depending on which switch is turned off, please explain what should happen in each case.

Answer:

If either switch is returned to the off position, the car returns to the alternate level. Also see response to Inquiry 03-15.

A17 Committee Approval: October 1, 2003

Inquiry 03-22

Subject: Door Position Monitoring

Edition: 2.26.5(a) of A17.1-2000
Rule 210.15(a) of A17.1-1996

Question:

The heading for this Requirement indicates that its purpose is to prevent automatic operation of the elevator with faulty door contact circuits. However, this is not explicitly stated in the body of the Requirement, which says that the purpose of the door monitoring means is to prevent the operation of the car if the car door is not closed, regardless whether the portion of the circuits incorporating the car-door contact or the interlock contact of the landing door coupled with the car door, or both, are closed or open, except as permitted in 2.12.7 (access), 2.26.1.5 (door lock bypass), and 2.26.1.6 (leveling). Is the controller required to detect jumpers that have been installed across the hoistway door interlock and/or car door electric contacts and prevent operation of the car on inspection mode (assuming the BYPASS switches are in the "OFF" position)?

Answer:

No.

A17 Committee Approval: October 1, 2003

Inquiry 03-23

Subject: Factor of Safety of Driving Machines and Sheaves

Edition: Rule 208.3 of A 17.1-1993

Question:

Is a Factor of Safety of 8 or 10 required for securing brake lining to Brake shoe per rules 208.3a and 208.3b?

Answer:

If the means for securing the brake lining to the brake shoe are metal the elongation of those metals will determine which factor of safety applies. The factors of safety for materials other than metals are not addressed in this rule.

A17 Committee Approval: October 1, 2003

Inquiry 03-25

Subject: Speed Governors

Edition: 2.18.5.3(f) and 2.18.9(b) of A17.1-2000

Background:

In the ISO 4344 Standard, Types of construction of elevator rope is as shown below (Part 3 including footnote 1 which states that the construction can be with 8 to 12 outer wires per strand, 2 to 3 layers over a king wire). The wire rope industry is using this as a classification, which gives them flexibility on construction of the rope as long as it meets the minimum prescribed mass and breaking loads (specified in Tables 2 and 3 in Part 10 of ISO 4344). In this standard, there are two classifications; 6 x 19 and 8 x 19 used for lifts. Any of the rope diameters shown could be provided to meet a specification requirement of, e.g. 8 x 19 construction ropes.

Excerpt from ISO 4344 Standard, Part 3
3 Types of construction and diameter ranges

The types of construction and diameters are as follows:

Construction	Nominal diameters, mm
6 x 19 ¹⁾ equal (parallel) lay	6-8-10-11-13-16-19-22
8 x 19 ¹⁾ equal (parallel) lay	8-10-11-13-16-19-22

¹⁾ 8 to 12 outer wires per strand, 2 to 3 layers over a king wire.

Question:

- (1) Is the “construction of the governor rope” specified in 2.18.9(b) the same as the “construction classification” specified in 2.18.5.3(f)?
- (2) Are they the same as the “construction” in Part 3 of ISO 4344?

Answer:

- (1) Yes
- (2) This is beyond the scope of A17.

A17 Committee Approval: October 1, 2003

Inquiry 03-27

Subject: Pits

Edition: Rules 300.7 and 106.1b(3) of A17.1 – 1996

Questions:

Rule 300.7 requires that pits for hydraulic elevators comply with Section 106. Rule 106.1b(3) requires a sump pump where drains are not required. Is this pump required to be rated to pump oil?

Answer:

No.

A17 Committee Approval: October 1, 2003

Inquiry 03-28

Subject: Phase I Emergency Recall Operation & Phase II Emergency In-Car Operation

Edition: 2.27.3.1.6(h) and 2.27.3.3.1(h) of A17.1 – 2000 including A17.1a-2002

Question:

Section 2.27.3.1.6(h) requires a visual graphic as shown in Figure 2.27.3.1.6(h). Section 2.27.3.3.1(h) requires a Call Cancel button. There is currently advertised an illuminated button that serves a dual purpose. The button operator has the visual graphic shown in Figure 2.27.3.1.6(h) with the words Call Cancel inscribed across the graphic.

- (1) Is the described graphic a violation?
- (2) Is dual use permitted?

Answer:

- (1) Yes. It is the intent of the code that these be separate devices.
- (2) No.

A17 Committee Approval: October 1, 2003

Inquiry 03-29

Subject: Ventilation for Machine Room and Control Equipment

Edition: Rule 101.5b of A17.1 – 1996

Questions:

- (1) Does the installation of a thermostatically controlled HVAC system, with heating and cooling capabilities, comply with the requirement of Rule 101.5b?
- (2) Does Rule 101.5b require that the machine room be exhausted to the exterior, by way of an exhaust vent or exhaust fan, in addition to the HVAC system?

Answer:

- (1) Yes.
- (2) No. See Inquiry 91-22.

A17 Committee Approval: October 1, 2003

Inquiry 03-30

Subject: Design and Construction of Pits

Edition: 2.2.2.5 of A17.1 – 2000

Questions:

Would an acceptable alternative to the sump pump or drain be a design, certification and verification that the elevator operation could proceed unimpeded if the pit were filled with water to the level of the lowest landing?

Answer:

No.

A17 Committee Approval: October 1, 2003

Inquiry 03-31

Subject: Means of Checking Liquid Level

Edition: Requirement 3.24.3.3 of A17.1 – 2000

Questions:

Rule 3.24.3.3 requires that a means of checking the liquid level of an atmospheric oil storage tank for a hydraulic elevator shall be provided, and that means must be accessible without the removal of any cover or other part.

Many tanks use a sight glass or viewport to allow the level in the tank to be viewed without removing any part or cover. I find this to be practical and effective. Is the use of a dipstick, a part that must be removed from the tank, now prohibited, because it is a part that must be removed, in favor of a sight glass or viewport?

Answer:

No, the dipstick is considered an acceptable means.

A17 Committee Approval: October 1, 2003

Inquiry 03-32

Subject: Emergency or Standby Power System

Edition: 2.27.2.3 of A17.1 – 2000 including A17.1a-2002

Question:

Rule 2.27.2.3 requires that an illuminated signal marked “ELEVATOR EMERGENCY POWER” shall be provided in the elevator lobby at the designated level to indicate that the normal power supply has failed and the emergency or standby power is in effect.

An illuminated signal marked “ELEVATOR EMERGENCY POWER” is provided in a fire control center located just off the elevator lobby. This room is separated from the lobby by a door. No signal is actually provided in the elevator lobby itself. Does this comply with requirement 2.27.2.3?

Answer:

No.

A17 Committee Approval: October 1, 2003

Inquiry 03-33

Subject: Hoistway Access Switches – Operating Requirements

Edition: 2.12.7.3.3(a) of A17.1 – 2000 including A17.1a-2002

Revised Question:

- 1) When will the in car switch enable hoistway access switches to initiate and maintain movement of the car?
- 2) Does this switch override fire service at any time?
- 3) Does this switch only operate and enable hoistway access switches when the car is stopped at a landing where hoistway access switches are provided?
- 4) Can this switch (if key operated) be the same as the hoistway access switches?

Answer:

- 1) When the elevator is within the zone specified in 2.12.7.3.6, and 2.12.7.3.7. See also 2.12.7.3.8.
- 2) See 2.27.6.
- 3) See response to question 1.
- 4) Yes. See 8.1.2.

A17 Committee Approval: October 1, 2003

Inquiry 03-34

Subject: Phase I Emergency Recall Operation

Edition: 2.27.3.1.6(k) of A17.1 – 2000

Revised Question:

Is it permissible to bypass fire alarm initiating devices if key switch is left in the reset position?

Answer:

No.

A17 Committee Approval: October 1, 2003

Inquiry 03-36

Subject: Hoistway Access Switches

Edition: 2.12.7.1.2 of A17.1 – 2000

Background:

A hoistway key access switch is being requested because the top of car enclosure exceeds 35". However, at the front of the car where the door motor and door control box are situated and clearly has a place to step onto this measures 29". The crosshead measures 21".

Question:

- (1) What is the definition of top of car as stated in 2.12.7.1.2?
- (2) Is it the top of car enclosure only?
- (3) Would the crosshead enter into this equation?

Answer:

- (1) The top of the car is the car top horizontal plane. See Appendix G.
- (2) Yes
- (3) No

A17 Committee Approval: October 1, 2003

Inquiry 03-37

Subject: Requirements 8.6.8.3, 8.11.4.2.19, and 8.11.4.2.20
Step/Skirt Performance Index Requirements

Edition: A17.1d-2000 of A17.1-1996
A17.1-2000 including through A17.1b-2003

Question:

- 1) When testing escalators which were installed under A17.1c-1999 and earlier editions the resulting step/skirt performance index is greater than 0.15 but less than or equal to 0.4, then is installing skirt deflectors the only option or are there other acceptable options (e.g. reducing the index to equal or less than 0.15 by other means)?
- 2) If skirt deflectors are added to an existing escalator installed under A17.1c or earlier editions, is this an alteration?
- 3) If the answer to question 2 is NO, then what would this addition to the escalator be classified as?

Answer:

- 1) Any permanent means that reduces the index to 0.15 or less is acceptable.
- 2) Yes.
- 3) See answer to 2).

A17 Committee Approval: October 1, 2003

Inquiry 03-38

Subject: Requirement 3.26.8 – Pressure Switch

Edition: A17.1-2000 and up to and including A17.1a-2002

Question:

Is it permissible for the pressure switch required in 3.26.8 to be of a type which does not utilize moving contacts to indicate a change of state from “on” to “off”?

Answer:

Yes.

A17 Committee Approval: October 1, 2003

Interpretations Approved at the January 2004 A17 Standards Committee Meeting

Inquiry 01-59 (Reconsideration)

Subject: Safety Stopping Distances

Edition: Rules 1002.3(a)(1), 1002.3(f) and 1207.2 of ASME A17.1 - 1996

Background:

- A) The existing wedge clamp safeties on the elevator were installed prior to A17.1-1955 edition of the Code and were not replaced during the alteration.
- B) The elevator was recently altered in compliance with Rule 1201.2a, 1201.3, 1201.10e, 1202.5, 1202.7, 1202.9, 1202.11, 1202.12a, 1202.12e and 1202.13.
- C) The governor was replaced as part of the alteration.
- D) The governor rope was changed and is of the same size, material and construction as originally furnished.

Questions:

- 1) Prior to the alteration when performing the five (5) year periodic safety test [1002.3a(1)] did the maximum and minimum stopping distances have to conform to the distances specified in Table 2.29.2(e) in ASME A17.2.1-1996?
- 2) Does Rule 1202.7 require that the safeties conform to the requirements in Rule 205.3 (e.g. safety stopping distances)?
- 3) Upon conclusion of the alteration Rule 1003.3(f) required that the test specified in Rules 1003.2a, 1003.2b and 1003.2d be made. Rule 1003.2(d)(3) requires the safety stopping distances for Type B safeties conform to Rule 205.3:
 - a) Do the existing wedge clamp safeties have to comply with the stopping distances specified in Rule 205.3; or
 - b) The stopping distances specified in the Code at the time original installation (e.g. ASME A17.1-1937 and earlier editions, Rule 216)?
- 4) If the answer to question 3(b) is "yes" is it acceptable if the safety stopping distance for the existing wedge clamp safeties comply with that specified in Rule 205.3.

Answer:

- 1) The maximum and minimum stopping distances shall comply with the Code that was in place at the time of installation or alteration. This information can be found in Table 2.29.2(e) in ASME A17.2.1-1996. The values have not changed since 1955.
- 2) No.
- 3a) Yes. Rule 1202.12e(4) requires compliance with Section 205. This would include the safety stopping distance.
- 3b) No. See answer to question 3a.
- 4) See answer to question 3b.

A17 Committee Approval of Revised Answer: January 14, 2004

Inquiry 02-09 (Reconsideration)

Subject: Requirement 2.27.3.3.4, Phase II Emergency In-Car Operation.

Edition: A17.1-2000

Question:

Requirement 2.27.3.3.4 references requirement 2.27.3.1.6(a), which requires that after the car arrives at the designated level the power operated doors shall open and remain open. According to requirement 2.27.3.3.4, the elevator remains on Phase II operation.

- 1) Which requirement, 2.27.3.1.6(a) or 2.27.3.3.1(d) applies to the opening of the doors upon arrival at the designated level per the Subject requirement?
- 2) If 2.27.3.1.6(a) applies, does it mean that the elevator is momentarily removed from Phase II operation [because there is no permission in the Code for automatic (non-constant pressure) power opening of the door when on Phase II] ?
- 3) If the answer to question 2 is "No, it is not removed...", why is this exception to 2.27.3.1.6(a) not clearly stated in the Code?
- 4) If the Phase II Emergency In-Car Operation switch is turned back to the ON position before it reaches the designated level, will the elevator return to Phase II and will the firefighter still regain full control of the elevator?
- 5) Assuming that the recall switch at the designated level is in "OFF" position when the car arrives at that level and stays there with doors open to find out what happens with the car's operational status, whether Phase II or normal operation,
 - (a) per reading requirement 2.27.3.3.5, is it correct that the car must have been removed from Phase II operation, and consequently it is on normal operation.
 - (b) per reading the 2nd paragraph of 2.27.3.3, which ends "except as required by 2.27.3.3.4", which is the subject rule of this inquiry. From this rule it is concluded that the car should not have been removed from Phase II operation and would remain indefinitely on Phase II operation, until some action is taken.

Answer:

- 1) 2.27.3.1.6 (a) applies.
- 2) No, the car remains on Phase II until it reaches the recall level and the doors fully open. At that point 2.27.3.3.5 and 2.27.3.3 second paragraph apply. Therefore, if Phase II key is off and Phase I key is on, then the car goes to Phase I. If Phase II key has been turned back on, car remains on Phase II. If Phase I and Phase II are both off, car returns to normal operation.
- 3) See answer to 2).
- 4) See answer to 2).
- 5a) Yes, it is on normal, see answer 2).
- 5b) No, it is on normal, see answer 2).

A17 Committee Approval of Revised Answer: January 14, 2004

Inquiry 03-24

Subject: Elevator Safety Requirements for Seismic Risk Zone 2 or Greater

Edition: 8.4 of A17.1-2000

Question:

- (1) With regard to hydraulic elevators, the first paragraph of Section 8.4 refers explicitly to direct-plunger hydraulic elevators only. Does this section include other types of hydraulic elevators (e.g. roped-hydraulic) if they have counterweights?
- (2) If the answer to Question 1 is yes, do all other requirements for hydraulic elevators in this section, including those of 8.4.11, apply to these other types of hydraulic elevators with counterweights?
- (3) Does Section 8.4 apply to the special application elevators of Part 5 of the code in the same manner as described by the replies to Question 1 and 2 above?

Answer:

- (1) The A17.1 Code does not address seismic requirements for roped hydraulic elevators.
- (2) See answer to (1).
- (3) Yes.

A17 Committee Approval: January 14, 2004

Inquiry 03-40

Subject: Requirement 5.3.1.7.4 - Locking devices for Hoistway Doors and Gates
Requirement 8.3.3 - Type Tests of Interlocks, Combination Mechanical Locks and Electric Contacts, and Door or Gate Electric Contacts

Edition: A17.1 – 2000

Question:

- (1) Are residential elevator hoistway door locking devices as described in 5.3.1.7.4 required to comply with any of 2.12.2.4? If so, please state which sections, and where in the code is this stated.
- (2) If 2.12.2.4.1 is not applicable, are enclosed snap action type switches permitted to be used for sensing the closed and locked position of the door?
- (3) Are residential elevator hoistway door locking devices as described in 5.3.1.7.4 required to comply with any sections of 8.3.3? If so, please state which sections, and where in the code is this stated.
- (4) If compliance with 8.3.3 is required, in reference to 8.3.3.2, which sections of Part 2 would be “applicable requirements”?

Answer:

- (1) No.
- (2) ASME does not endorse any product. Any switches used within the device must conform to the requirements of 5.3.1.7.4 and pass the tests as required by 8.3.3.
- (3) Yes. Requirement 5.3.1.7.4 references requirement 2.12.4.1 which references requirement 8.3.3
- (4) Requirement 5.3.1.7.4 references requirement 2.12.4 and requirement 5.3.1.7.7 references requirement 2.12.6. The primary requirements are found in requirement 5.3.1.7.4.

A17 Committee Approval: January 14, 2004

Inquiry 03-41

Subject: Section 3 – Definition of “Designated Attendant”

Edition: A17.1 – 1996

Question:

The definition for "designated attendant" states that this term applies whenever elevator operation is controlled from inside the car, and the examples of this are listed as "attendant service, independent, hospital service, and other similar operations". Fire Phase II operation would seem to be a rather conspicuous omission from this list.

Is the elevator considered as being operated by a designated attendant during Fire Phase II operation? If not, then, for the purpose of this definition, what distinguishes Fire Phase II from any other "designated attendant" type of operation?

Answer:

No. It is the intent that Phase II operation is used by emergency personnel only, not authorized personnel.

A17 Committee Approval: January 14, 2004

Inquiry 03-43

Subject: Requirement 2.27.2 Emergency or Standby Power System
Requirement 3.27 Emergency Operation and Signaling Devices

Edition: A17.1 – 2000

Question:

1) Requirement 2.27.2.3 states, "An illuminated signal marked 'ELEVATOR EMERGENCY POWER' shall be provided in the lobby at the designated level to indicate that the normal power supply has failed and the emergency or standby power is in effect."

a) In the case of a multi-car group, should there be one illuminated signal per car, or one per group of elevators?

b) If it is one signal per car, should the light only illuminate when the car is selected to run on emergency/standby power?

2) The introductory paragraph to Section 3.27 states that emergency operation and signaling devices shall conform to 2.27 (except as modified therein).

a) Is the illuminated signal referenced in question 1 required in the case of a hydraulic elevator that has auxiliary power lowering operation?

b) If so, shall the light remain illuminated after the car has completed the recall sequence?

Answer:

(1)(a) The code requires one illuminated signal per elevator lobby at the designated level.

(1)(b) See 1a

(2)(a) No

(2)(b) See answer to (2)(a).

A17 Committee Approval: January 14, 2004

Inquiry 03-45

Subject: 3.18.3.7 Collection of Oil Leakage

Edition: A17.1 – 2000

Question:

- 1) On hydraulic elevators with more than one cylinder:
 - a) does the Code limit the total amount of oil collected before removal to 19L (5 gal) per elevator? or
 - b) may each cylinder be equipped with a container that has a capacity of up to 19 L (5 gal)?
- 2) Is an oil return line that returns oil from the cylinder head to the storage tank permitted by Code?
- 3) Would an installation with an oil return line described in question 2 above require a separate means for oil collection if the oil return line did not capture oil that leaked past the packing gland?
- 4) Do the responses to the above questions apply to all previous editions of the Code with similar wording?

Answer:

- 1a) No
- 1b) Yes
- 2) It is neither required nor prohibited.
- 3) Yes
- 4) Yes. Also see requirement 8.6.5.5.2.

A17 Committee Approval: January 14, 2004

Inquiry 03-48

Subject: Phase I Emergency Recall Operation
Phase II Emergency In-Car Operation

Edition: Requirements 2.27.3.1.6(l) and 2.27.3.3.1(i) and (k) of A17.1-2000 including through A17.1b-2003

Background:

The International Building Code requires that elevators conform to ASCE 24 for construction in flood hazard areas. SEI/ASCE 94-98, Section 8.5 states “Where there is potential for an elevator cab to descend below the elevation specified in Table 8-1 during a flood event, the elevator shall be equipped with controls which will prevent the cab from descending into floodwaters.” (Table 8-1 specifies Minimum Elevations for different Structure Categories).

Question:

If a device causes the elevator to move to or shut down and park at a landing above the Flood Elevation in order to meet the requirements of SEI/ASCE 24, does the elevator comply with the referenced requirements if:

- (1) The elevator remains parked at a landing other than the recall landing when a Fire Recall switch or Fire Alarm Initiating Device is activated?
- (2) The elevator recalls to a landing other than the recall landing when a Fire Recall switch or Fire Alarm Initiating Device is activated?
- (3) The elevator remains parked at a landing other than the recall landing when a Fire Operation switch is activated?
- (4) The elevator does not serve all landings during the flood event?

Answer:

The Committee recognized there are conflicting requirements between SEI/ASCE 24 and ASME A17.1. The following answers are based on the requirements in A17.1.

- (1) No
- (2) No
- (3) No
- (4) No

A17 Committee Approval: January 14, 2004

Inquiry 03-49

Subject: Security

Edition: 8.1.1(c) of A17.1-2000

Question:

- (1) What is the definition of “premises”?
- (2) Does it meet the code requirement if the keys are kept at another building within the same multi-building project with signs placed at each elevator in other buildings within the same project indicating the location of the keys?
- (3) Does your answer apply to previous editions of the code with similar wording?

Answer:

- (1) A17.1 does not define “premises”. Undefined terms take on common meaning.
- (2) Yes
- (3) Each edition of the code stands on it’s own.

A17 Committee Approval: January 14, 2004

Inquiry 03-50

Subject: Security

Edition: 2.14.7.2.1 and 8.1 of A17.1-2000 including A17.1a-2002

Question:

It is assumed that 8.1.1(a) is referring to devices or locks that are not part of or related to the elevator system.

(1) A common method of controlling the lights and fan in an elevator car has been to include both the lights and fan in the same key switch, with the positions marked as off-light-light and fan. Since the fan is not mentioned in Section 8.1 (except possibly under Rule 8.1.5 Group 4 Other), and since the keys in Group 2 are not prohibited from being part of a master key system, can the combination light fan switch still be used?

(2) If separate light and fan switches are used, can the same key control both, with the fan being considered part of the master key system?

Answer:

(1) Yes.

(2) Yes.

A17 Committee Approval: January 14, 2004

Inquiry 03-51

Subject: Phase I Emergency Recall Operation to an alternate level

Edition: Requirement 2.27.3.2.4(a) of ASME A17.1-2000

Question:

Requirement 2.27.3.2.4(a) states, "the activation of a fire alarm initiating device specified in 2.27.3.2.1(a) or 2.27.3.2.2(a) that is located at the designated level, shall cause all elevators serving that level to be recalled to an alternate level, unless a 'FIRE RECALL' switch is already in the 'ON' position".

But what should happen in each of the following scenarios:

1) Either the main or additional Phase I Emergency Recall switch is momentarily turned to the "ON" position (and then back to the "OFF" position), and the car goes into Phase I Emergency Recall operation. Then, with both Phase I switches in the "OFF" position, the main floor fire alarm initiating device is actuated.

2) Either the main or additional Phase I Emergency Recall switch is turned to the "ON" position and remains in the "ON" position, and the car goes into Phase I recall operation. Then, with the Phase I switch still in the "ON" position, a fire alarm initiating device at the designated level is actuated. After that point, the Phase I switch is turned to the "OFF" position.

In either of these two scenarios, should the car remain at the designated level until the 3-position Phase I switch is turned to the Reset position, or should it respond to the FAID?

Answer:

Operation of the Phase I switch has initiated Phase I recall to the designated level. The fire alarm initiating device cannot initiate Phase I recall to the alternate level as Phase I is already in effect.

A17 Committee Approval: January 14, 2004

Inquiry 03-52

Subject: Control and Operating Circuits

Edition: 2.26.9.4 of A17.1-2000

Question:

This section requires that, when a single ground or failure, as specified in 2.26.9.3, occurs, the car shall not be permitted to restart. However, there is no guideline as to when the car is permitted to restart in each case. In the case where a fault is self-clearing (e.g., a stuck relay drops out on its own) and this can be detected without having to first move the car away from the floor:

- 1) is it permitted to automatically allow the car to return to service when the fault self-clears? Or
- 2) should all of these failures require a physical reset before the car can return to service?

Answer:

- 1) Yes.
- 2) No.

A17 Committee Approval: January 14, 2004

Inquiry 03-53

Subject: Emergency Terminal-Speed Limiting Device

Edition: 2.25.4.1.9 of A17.1-2000

Question:

This section requires that, where magnetically operated, optical, or solid state devices are used for position sensing, and a single short circuit or other type of failure occurs, the car shall not be permitted to restart after a normal stop. However, there is no guideline as to when the car is permitted to restart. In the case where a fault is self-clearing, and this can be detected without having to first move the car away from the floor:

- 1) is it permitted to automatically allow the car to return to service when the fault self-clears? or
- 2) should any such failure require a manual reset before the car can return to service?

Answer:

- 1) Yes.
- 2) No.

A17 Committee Approval: January 14, 2004

Inquiry 03-54

Subject: Elevator Safety Requirements for Seismic Risk Zone 2 or Greater

Edition: 8.4.10.1.3 of A17.1-2000 including through A17.1b-2003

Question:

Requirement 8.4.10.1.3, Paragraphs (a), (b), (c) and (d) all seem to be in agreement that automatic, power-operated doors must open and remain open when the car is stopped at a landing following actuation of an earthquake protective device (unless the car is on Phase II). But the Code does permit the car to be run at a speed of not more than 150 fpm, provided the counterweight displacement switch is of the continuously monitoring type and is not activated, though it doesn't specify what modes of operation would be considered acceptable; nor does it explain subsequent door operation requirements for cars not on Phase II.

- (1) Once the car has completed the earthquake shutdown and opened the doors as required (assuming the counterweight displacement switch is not activated, and the momentary reset button mentioned in 8.4.10.1.3(i) has not been actuated), is it permitted to then run the car on normal operation, albeit at a reduced speed (if necessary) of no more than 150 fpm?
- (2) If the answer to question (a) is "yes," is it permitted to close the doors and keep them closed whenever the car is stopped at a floor with no calls registered? (NOTE: Requirement 2.11.3.2 would actually seem to make this mandatory for horizontally sliding doors, although this is far from being clear.)
- (3) If the answer to question (b) is "yes," is there a minimum time the doors must remain open?
- (4) In what way might the answers to questions (b) or (c) change if the car has walkthrough doors and/or security features?
- (5) If the answer to question (a) is "no," what modes of operation are permitted in this situation?

Answer:

- 1) The proposed operation is not addressed by the A17.1-2000 Code. The operation is neither required nor prohibited.
- 2 through 5) See response to number 1

A17 Committee Approval: January 14, 2004

Interpretations Approved at the May 2004 A17 Standards Committee Meeting

Inquiry 02-43

Subject: Rule 1202.7(a), Speed Governors and Governor Ropes

Edition: A17.1 – 1996

Question:

Would a full-load be required to test a new governor installed on an existing elevator?

Answer:

No. The requirements for inspection and test are contained in Part X. The requirements for inspection and testing of altered (see section 3 definitions) equipment are in Rule 1003.3. A17.1d-2000 and earlier editions do not have a requirement for testing of governors that have been replaced.

A17 Standards Committee Approval: May 7, 2003

Reconsideration of Inquiry 02-43

Subject: Rules 1200.5 and 1202.7(a), Speed Governors and Governor Ropes

Edition: A17.1 – 1996

Question:

Would a full-load be required to test a new governor installed on an existing elevator?

Answer:

The requirements for inspection and test are contained in Part X. The requirements for inspection and testing of altered (see section 3 definitions) governors are in Rule 1003.3(f). A17.1d-2000 and earlier editions do not have a requirement for testing of governors that have been replaced.

A17 Standards Committee Approval: May 6, 2004

Reconsideration of Inquiry 03-10

Subject: Requirement 8.6.3.8, Replacement of Door Reopening Device

Edition: A17.1-2000

Question:

This question originates from the cited code referring you to 8.7.2.13.

- 1) Based on the definitions in section 1.3 of replacement versus alteration, if you replace a mechanical safety edge with an electronic infrared curtain is this an alteration or a replacement?
- 2) Based on the same situation if you replace a mechanical safety edge with a mechanical safety edge is this an alteration or a replacement?

Answer:

- 1) It is a replacement. The replacement shall comply with the requirements of 8.7.2.13.
- 2) It is a replacement. The replacement shall comply with the requirements of 8.7.2.13.

A17 Standards Committee Approval: May 7, 2003

A17 Standards Committee Approved Reaffirmation: May 6, 2004

Inquiry 03-16

Subject: Requirements 2.8.1.2, 2.27.1.1.3 and 2.27.1.1.5
Electrical Equipment and Wiring and Emergency Communications

Edition: A17.1 – 2000 including A17.1a-2002

Questions:

- (1) May the two-way communication **means** between the car and a location in the building be satisfied in Section 2.27.1.1.3 with a wireless communication system?
- (2) If a wireless communication system satisfies the **means** requirement for a two-way communication system will an in car storage battery for the in car communication satisfy the requirements for a "source of standby or emergency power" as related in Section 2.27.1.1.5?
- (3) If a wireless in car communication system were provided would the coax wiring and related communication antennas within the hoistway be permitted in that they are not listed in Section 2.8.1.2. ?

Answer:

- (1) Yes, provided the emergency communications also complies with the other requirements in 2.27.1.1.
- (2) The requirements for sources of standby or emergency power are outside the scope of ASME A17.1.
- (3) As long as the coax wiring and antennas are only used for communication with the elevator(s), they are permitted.

A17 Standards Committee Approval: May 6, 2004

Inquiry 03-26

Subject: Rule 300.3, Electrical Equipment, Wiring, Pipes, and Ducts in Hoistway and Machine Rooms

Edition: A17.1 – 1996

Questions:

- (1) For the situation with a common machine room and totally separate hoistways for a two car bank or even multi cars; does the code allow the electrical piping/duct and the hydraulic oil line to run through the pit of the elevator shaft closest to the machine room to get tot the hoistway of the second car? (Both elevator shafts are completely separate from one another with a masonry wall from the pit floor to the roof and both cars have their own hoistway venting.) The electrical pipe and oil line in question are for the farthest car from the machine room. Can they pass through the pit area of the elevator closest to the machine room?
- (2) If the shaft was across the hall can the electrical pipe and oil line be routed through the pit of the hoistway closest to the machine room and go underground to the shaft across the hall to get to the hoistways of the car or cars?
- (3) If the answers to questions 1 and 2 are yes, then how many sets of electrical piping and oil lines are allowed to pass through this one hoistway?

Answer:

- (1) Yes. See Rule 102.2(d).
- (2) Yes.
- (3) If used in connection with the elevator(s), the number of sets is not addressed.

A17 Standards Committee Approval: May 6, 2004

Inquiry 03-35

Subject: Rule 107.1e, Top Car Clearances for Counterweighted Elevators

Edition: A17.1 – 1996

Question:

Is the counterweight runby that must be used to calculate the minimum car top clearance the minimum (Rule 107.1b), the maximum (Rule 107.1d) or the actual (measured)?

Answer:

The actual runby is used.

It should be clearly understood that the designer of the elevator system when preparing the elevator plans will determine the counterweight runby in accordance with 107.1b, 107.1d, 107.1e, 107.1g, 107.1i, 107.1j and 107.1k.

The designer will typically specify the counterweight runby on the elevator plans. That maximum designed counterweight runby is specified on a data plate per 107.1d.

The code does not specify that the maximum permitted counterweight runby be used in accordance with 107.1b, 107.1d, 107.1e, 107.1g, 107.1i, 107.1j, and 107.1k. Counterweight runbys of lesser magnitudes are permitted by the designer. These are the maximum designed counterweight runbys. This is what is specified on the data plate per 107.1d for future reference.

A17 Standards Committee Approval: May 6, 2004

Inquiry 03-39

Subject: Requirement 2.15.7, Car-Frame and Platform Connections

Edition: A17.1 – 2000

Question:

It is being required that a support frame be provided and that the support frame shall carry rubber isolation pads or pads of approved material on which the platform shall rest without any connection to the steel frame.

Does the A17.1 code allow a platform to sit, or rest on isolation pads, in a frame, without any fastening, bolting, or connection of any kind between the platform and the frame?

Answer:

The code requires attachment of the platform to the car frame to be done in accordance with good engineering practice (see 2.15.7.2). In addition, the Code further requires the platform, frame and their connections to meet the static requirements of the type of loading. Constraints on vertical motion are imposed by other parts of the Code e.g. buffer strikes and ascending car overspeed protection.

A17 Standards Committee Approval: May 6, 2004

Inquiry 03-42

Subject: Requirement 6.1.3.3.8 - Skirt Deflector Devices
Step/Skirt Performance Index Requirements

Edition: A17.1-2000 including through A17.1b-2003

Background:

There exists some confusion as to whether the rule wording permits deflectors to be located at any position other than the specific values written in the rule, and being in conflict with Figure 6.1.3.3.8.

Question:

(1) Does 6.1.3.3.8 (a) (2) permit the lower edge of the rigid element lower surface (nearest the step nose line) to be located further outward than 25 mm vertically above the step nose line?

(2) If the answer to (1) is yes, is there a maximum “outward” distance?

(3) Does 6.1.3.3.3 (a) (3) permit the lower edge of the rigid element lower surface (nearest the step nose line) to be located higher than 50 mm above the step nose line?

(4) If the answer to (3) is yes, is there a maximum “above” distance?

Answer:

(1) Yes.

(2) No. But there is a natural limit that is determined by the balustrade geometry.

(3) Yes.

(4) No. But there is a natural limit that is determined by the balustrade geometry.

A17 Standards Committee Approval: May 6, 2004

Inquiry 03-44

Subject: Requirement 6.1.3.6.6, Floor Opening Protection Adjacent to Escalator Wellway

Edition: A17.1-2000

Question:

Does this rule require the floor opening protection of the inclined portion of the escalator?
This is assuming that the escalator is not adjacent to a wall or other structure, but perhaps, in an atrium situation.

Answer:

Yes.

A17 Standards Committee Approval: May 6, 2004

Inquiry 03-46

Subject: Normal Terminal Stopping Devices and Control and Operating Circuits

Edition: Requirement 3.25.1 and 3.26.6.2 of A17.1 – 2000
Rules 305.1a and 306.9(b) of A17.1-1996

Background:

As a direct acting hydraulic elevator approaches a terminal floor on a normal run it activates a slowdown switch. It then proceeds at reduced speed and is stopped by a making contact (completing a circuit) in the leveling switch.

A failure of the slowdown switch to slowdown the car activates a separate NTSD switch. When activated the NTSD switch activates a slowdown independent of the slowdown switch.

The leveling switch has only one contact. The stopping of the car is dependent on the making of this single contact, during both a normal terminal stop and a NTSD stop.

Question:

The stopping of the car is dependent on the making of the same single device (e.g. a device for determining position), for both the normal stopping means and a normal terminal stopping device stop. Does this meet the requirements of A17.1-1996 Rule 305.1 and A17.1-2000, requirement 3.25.1 for the operation of the normal terminal stopping device?

Answer:

No, the code states that normal terminal stopping device shall function independently of the operation of the normal stopping means. See also Inquiry 97-32.

A17 Standards Committee Approval: May 6, 2004

Inquiry 03-47

Subject: Rule 211.3b(3), Phase I Fire Alarm Activation

Edition: A17.1-1996 including through A17.1a-1997

Background:

The rule in 1996 specifically stated that an initiating device in a motor room at the designated floor will send the elevator to the alternate floor.

The rule in 1997 edited the language about a motor room,

The requirement in 2000 returned the specific language for alternate floor recall.

Rule 211.3a states that the elevator will respond... to the first initiating device...

There is controversy as to where the elevator shall go, based upon the change in rules. It has been interpreted to mean that from the 1997 supplement that the code calls for the elevator to respond to the designated floor if the motor room initiating device is triggered first even if the motor room is at the designated floor and may be remote from the hoistway.

Question:

If a motor room initiating device at the designated level is triggered is the elevator to go to the alternate level or the designated level?

Answer:

The elevator is to be recalled to the alternate level in compliance with the requirements to recall to the alternate level when the detector at the designated level is activated per rule 211.3b(2).

A17 Standards Committee Approval: May 6, 2004

Inquiry 03-56

Subject: Requirements 211.3a and 211.3b(4) or (5)

Edition: A17.1-1987 through A17.1-1996 including through A17.1d-2000

Question:

1) When Phase I is initiated via the Phase I switch, must the car complete the Phase I return before the OFF position will have any effect?

2) When Phase I is initiated via the fire alarm initiating device, must the car complete the Phase I return before the BYPASS position of the Phase I switch will have any effect?

3) If the answer to either of these questions is "yes," please explain.

Answer:

1) No, however the code does not prohibit the car from completing recall.

2) No, however the code does not prohibit the car from completing recall.

3) See response to 1) and 2).

A17 Standards Committee Approval: May 6, 2004

Inquiry 03-57

Subject: Requirements 211.3a(4)(a)

Edition: A17.1-1996 including through A17.1d-2000

Question:

A reopening device that has been rendered inoperative as required and door closing complies with Rule 112.4(a) when Phase I is activated. If the door is obstructed we have 3 different scenarios:

- (a) The doors start to close until they contact the obstruction, and then continue to close without reopening once the obstruction is removed.
- (b) The doors start to close until they contact the obstruction, and then after a pre-determined time will reopen and close without delay.
- (c) The doors start to close until they contact the obstruction, and then after a pre-determined time will reopen and remain open for a pre-determined time and then close.

- 1) Do these scenarios comply with Rule 211.3a(4)(a)?
- 2) If the answer to scenario (c) were yes, what would an acceptable time for the doors to remain open be? (5, 10, 30 seconds, 1, 2, 3, minutes)

Answer:

- 1) Rule 211.3a(4)(a) does not address obstructions in the closing path of the door.
- 2) See response to 1).

A17 Standards Committee Approval: May 6, 2004

Inquiry 03-59

Subject: Requirement 211.3a(6), Hall Position Indicators

Edition: A17.1-1993 through A17.1-1996 including through A17.1d-2000

Question:

Are all hall position indicators to be extinguished and to remain inoperative throughout fire service, except the one at the designated level (i.e., the hall position indicator located at the alternate level must remain inoperative, regardless of the level to which the car was recalled)?

Answer:

Where provided, all hall position indicators except at the designated level and the central control station shall be extinguished.

A17 Standards Committee Approval: May 6, 2004

Inquiry 03-60

Subject: Requirement 2.18.2.1 and 2.19.1

Edition: A17.1-2000

Question:

Requirement 2.19.1 states that an ascending car overspeed must be detected at a speed not more than 10% higher than the speed at which the car governor is set to trip. According to 2.18.2.1, the car speed governor is not permitted to trip prior to the car speed reaching 115% of the rated speed. Is it permissible for the ascending car overspeed detection circuit to be adjusted so that it will actuate the Emergency Brake before it has reached the minimum car speed governor tripping speed?

Answer:

Yes.

A17 Standards Committee Approval: May 6, 2004

Inquiry 04-02

Subject: Rule 804.3a(3) Escalator Braking Requirement

Edition: ASME A17.1 – 1996, including through Addenda A17.1c – 1999

Questions:

Does an escalator with horizontal retardation values exceeding 0.91 m/s^2 (3 ft/s^2) for time durations not greater than 0.125 seconds comply with the intent of ASME A17.1c – 1999, Rule 804.3a(3)?

Answer:

Yes. It was the intent, but it was not reflected in the code until the adoption of requirement 6.1.5.3.1(c) of the A17.1a-2002 code.

A17 Standards Committee Approval: May 6, 2004

Inquiry 04-03

Subject: Requirement 2.11.10.1, Landing Sill Guards

Edition: ASME A17.1 – 2000, including through Addenda A17.1b-2003

Background:

2.11.10.1.1(c) states "Landing sill guards are not required for (c) elevators where the landing sills do not project into the hoistway."

2.11.10.1.2 states in part "Where a car-leveling device is provided and the hoistway edge of the sill is either flush with or projects into the hoistway, the guard"

Question:

Does requirement 2.11.10.1(c) conflict with requirement 2.11.10.1.2?

Answer:

No.

A17 Standards Committee Approval: May 6, 2004

Inquiry 04-04

Subject: Request for Interpretation of 2.27.3.1.6(h)

Edition: ASME A17.1 - 2000

Question:

- 1) Does the Code require the visual signal to remain illuminated after the car has returned to the designated level?
- 2) Does the Code require the audible signal to remain audible after the car has returned to the designated level?

Answer:

- 1) No
- 2) No

A17 Standards Committee Approval: May 6, 2004

Inquiry 04-05

Subject: Request for Interpretation of 2.27.3.3.3, 2.27.3.3.4 and 2.27.3.3.5

Edition: ASME A17.1 - 2000

Background:

A car has completed recall to the alternate level as the result of activation of a fire alarm initiating device at the designated level, and is standing with its doors open. A firefighter enters the car at the alternate level, inserts the key into the "FIRE OPERATION" switch and turns the switch to the "ON" position. The switch is then returned to the "OFF" position without the car having been moved, and the switch is left in the "OFF" position.

In response to the listed actions, the doors close automatically, the car proceeds to the designated level automatically and the doors open automatically at the designated level. The doors then close automatically, the car recalls to the alternate level automatically and the doors open automatically.

Question:

- (1) Are all of the actions described above in compliance with the subject requirements and all other Code requirements?
- (2) If the doors were powered closed before the "FIRE OPERATION" switch was returned to the "OFF" position, does Code require any change in the remainder of the responses described?

Answer:

- 1) No
- 2) No

A17 Standards Committee Approval: May 6, 2004

Inquiry 04-06

Subject: Requirements 8.6.1.4(a), (b) and (c), Maintenance Records

Edition: A17.1-2000

Question:

- 1) Do the maintenance records have to be hard copy (written) or do electronic records comply with these requirements?
- 2) Do the records have to be physically stored at the maintenance site?
- 3) If the answer to question 2 is "yes" is there a required location at the site where the records are required to be stored?
- 4) If the answer to (3) is "yes" where?

Answer:

- 1) Either hard copy or electronic records comply with these requirements.
- 2) No. See requirements 8.6.1.2.1(c) and 8.6.1.4.2.
- 3) See answer to (2).
- 4) See answer to (3).

A17 Standards Committee Approval: May 6, 2004

Inquiry 04-07

Subject: Requirements 2.27.3.1.6(m), 2.27.3.3.1(l) and 2.16.8

Edition: A17.1-2000

Question:

Requirements 2.27.3.1.6(m) and 2.27.3.3.1(l) both state that "No device, which measures load, shall prevent operation of the elevator at or below the capacity and loading required in 2.16." Requirement 2.16.8 states, " Passenger elevators and freight elevators permitted by 2.16.4 to carry passengers shall be designed and installed to safely lower, stop, and hold the car with an additional load up to 25% in excess of the rated load."

Does the Code permit the load weighing device to prevent operation of the car on Phase I or Phase II in the UP direction if 100% of rated load is exceeded?

Answer:

Yes.

A17 Standards Committee Approval: May 6, 2004

Inquiry 04-10

Subject: Requirement 2.26.5, Door Monitor

Edition: ASME A17.1 - 2000

Questions:

- (1) Is the door monitor requirement of 2.26.5 required to function when the elevator is on Inspection Operation?
- (2) Is the door monitor requirement of 2.26.5 required to function when an automatic elevator is on designated attendant operation (Attendant, Independent or Hospital Service)?
- (3) Is the door monitor requirement of 2.26.5 required to function when an automatic elevator is on Firefighters' Emergency Operation?

Answer:

- (1) No, see Inquiry 03-22.
- (2) Yes
- (3) Yes, also see Inquiry 03-12.

A17 Standards Committee Approval: May 6, 2004

Interpretations Approved at the September 2004 A17 Standards Committee Meeting

The original Inquiry 03-17 answered October 2003 has been withdrawn.

Inquiry 03-17

Subject: Phase I Emergency Recall Operation by Fire Alarm Initiating Devices Seismic Operation of Elevators

Edition: Req 2.27.3.2 and 8.4.10.1.3 of A17.1 – 2000 including A17.1a -2002

Background:

40-story hi-rise office building with 24 passenger elevators and 3 service elevators, Building is seismic zone 1. Elevators are being upgraded to conform to A17.1-2000 requirements.

It has been decided that a new safety feature be added to the elevators. It consists of a heat detector installed in the machine room, which is intended to supply an input signal to the seismic recall portion of the elevator controller. No seismic switches or displacement switches are installed in this zone 1 building. The seismic recall feature is being installed strictly for this purpose.

The intent of this configuration is this:

- Phase I Emergency Recall is initiated and the elevators are in the process of being recalled, and
- A fire has activated the heat sensor in the machine room
- Phase I recall will be interrupted, and the elevator will stop at the first available landing, open its doors, and remove itself from service.
- This only affects elevators that are actively under Phase I recall.

Question:

According to code the activation of an elevator-related fire alarm initiating device shall cause all associated elevators to return nonstop to the designated or alternate level.

Does a the configuration of the seismic recall controller, activated by a heat sensor in the machine room, which interrupts Phase I recall and directs the elevator to the nearest available landing, comply with the requirements of 2.27.3.2?

Answer:

No.

A17 Standards Committee Approval: September 23, 2004

Inquiry 03-58

Subject: Requirement 6.1.7.3.2, Fastening of Access Plates

Edition: A17.1-2000

Background:

The code states in section 6.1.7.3.2 that " Access plates at the top and bottom landings shall be securely fastened". Some inspectors have been asking the installing contractors to "Bolt Down" these plates. Some manufacturers provide plates sitting flush with the floor and held in place by gravity. The means to lift the plate is either the installation of a lifting hook or a small hole in the front center of the plate that allows the mechanic to put a hook into to lift the plate.

Question (1):

Do access plates, sitting flush with the floor, held in place by gravity only, meet the requirements of 6.1.7.3.2 for securely fastened?

Answer (1):

No.

Question (2):

Must such plates be bolted or locked in place to meet 6.1.7.3.2?

Answer (2):

No. Any method to securely fasten the access plate is acceptable.

A17 Standards Committee Approval: September 23, 2004

Inquiry 04-09

Subject: Requirement 2.15.9.3 and 5.3.1.9.2(b), Platform Guards (Aprons)

Edition: ASME A17.1 – 2000

Question (1):

In 2.15.9.3, with regard to the guard being bent back 60 degrees and no more than 75 degrees, is there a length required for the bent section?

Answer (1):

This is not addressed in the Code.

Question (2):

In requirement 5.3.1.9.2(b), with regard to the 50 mm (2 in.), does this mean that the straight vertical face is 2 inches long or, the length is the depth of the zone where the door is unlocked plus 2 inches?

Answer (2):

The length of the straight vertical face is the depth of the zone where the door is unlocked plus 2 inches.

Question (3):

Does the lowest point of travel mean sitting at first floor (lowest point of normal travel) or sitting on the bottom of the pit (lowest possible point of travel)?

Answer (3):

Travel is defined. The lowest point of travel is the bottom terminal land.

A17 Standards Committee Approval: September 23, 2004

Inquiry 04-12

Subject: Requirement 2.17.17 and 2.22.4.10.3, Compensating Rope Tie Down

Edition: ASME A17.1 – 2000, including A17.1a-2002

Question:

Requirement 2.17.17 in the 2000 edition of the A17.1 Code required compensating rope tie down for rated speeds greater than 3.5 m/s (700 ft/min). However, this requirement was deleted in the 2002 Addenda, although it is still referenced in Requirement 2.22.4.10.3. Is compensating rope tie down still required for rated speeds greater than 3.5 m/s (700 ft/min)? If so, where in the Code is this Requirement now being addressed?

Answer:

Yes, tie down compensation is required for speeds greater than 3.5 m/s (700 ft/min). The requirement for the tie down compensation was moved from requirement 2.17.17 in the A17.1-2000 edition to requirement 2.21.4.2 in the A17.1a-2002 addenda.

A17 Standards Committee Approval: September 23, 2004

Inquiry 04-13

Subject: Requirements 3.4.2.2, 3.4.4 and 3.4.7
Top of Car Clearance for Hydraulic Elevator

Edition: ASME A17.1 – 2000

Question:

In a proposed sloped roof project it is believed that the requirements for the required area of refuge have been exceeded. Does meeting and exceeding all minimum requirements of Part 3, Requirements 3.4.2.2, 3.4.4 and 3.4.7, over only a portion of the car, comply with the intent of the code for clearance versus the general definition of top of car clearance as defined in Part 1, Section 1.3?

Answer:

No. There are no conflicts between the Code requirements stated and the definition. The lowest point of a sloped ceiling over the car enclosure establishes the lowest point of the overhead structure and is the height of the horizontal plane as stated in 3.4.7. The situation described does not meet the code.

A17 Standards Committee Approval: September 23, 2004

Inquiry 04-15

Subject: 6.1.3.5.6, Step Demarcation

Edition: ASME A17.1b-2003 addenda to A17.1-2000

Question (1):

Does “sides of the step” mean along both the step tread surface edge and the step riser surface edge?

Answer (1):

The Code does not define the “sides of the step”.

Question (2):

If the demarcation runs along the side of the step tread surface and stops at the juncture between the tread and riser at the step side, is the demarcation in compliance with the rule?

Answer (2):

See answer to (1).

Question (3):

If the demarcation runs along the side of the step tread surface and continues down along the side of the step riser, is the demarcation in compliance with the rule.

Answer (3):

See answer to (1).

Question (4):

If the answer to (2) is yes, will the rule be modified to clarify?

Answer (4):

A technical revision has been issued to review this matter.

A17 Standards Committee Approval: September 23, 2004

Inquiry 04-16

Subject: Rule 110.10, Landing Sill Guards

Edition: ASME A17.1-1996

Question (1):

Does Rule 100.1b (2) (a) apply to the strength of these guard plates?

Answer (1):

No

Question (2):

If not, does A17.1 address the strength these guard plates shall withstand?

Answer (2):

No, only the thickness is specified

A17 Standards Committee Approval: September 23, 2004

Inquiry 04-20

Subject: Requirement 2.14.7.1.3, Car Lighting

Edition: ASME A17.1-2000

Background:

It is our understanding that the purpose of auxiliary lighting is to enable the elevator passengers to see the emergency functions contained on a car operating panel (Alarm button, Stop button, 2-way communication device) in the event of a power failure. Since these items are generally located at 35" and below, the light intensity may be enough to pass code but not aid the passenger in an emergency situation.

Question (1):

What exactly is the auxiliary lighting meant to illuminate?

Answer (1):

The auxiliary lighting is meant to provide general illumination in the car by providing not less than 2 lx at the specified point of measurement.

Question (2):

If the alarm button is located at 35" should the illumination be tested at that height instead of 48"?

Answer (2):

No. See response to (1).

A17 Standards Committee Approval: September 23, 2004

Inquiry 04-21

Subject: Requirements 2.26.2.21, 2.26.2.33, 2.27.3.3.1(m), 2.27.3.3.7 and Section 8.1

Edition: ASME A17.1-2004

Background:

The in-car stop switch is required to be either key operated or behind a locked cover in or adjacent to the car-operating panel. It is a Group 1 security device. The firefighters stop which is located behind a locked cover at the top of a car-operating panel. A key for a Group 3 security device accesses the firefighters' panel. Elevator personnel have access to devices of both security groups.

Question:

Can the requirements for the in-car stop switch be met by the provision of the firefighters; stop switch?

Answer:

No, the in-car stop switch is rendered inoperative during Phase I, the firefighters emergency stop switch is not. Security levels for the two switches are also different.

A17 Standards Committee Approval: September 23, 2004

Inquiry 04-22

Subject: Requirement 3.7, Hydraulic Elevator Machine Rooms

Edition: ASME A17.1 – 2000

Question (1):

Does the code require 18 inches clearance all around the hydraulic machine pump units?

Answer (1):

No.

Question (2):

If the answer to question (1) above is no, how and where would the 18 inch requirement for maintenance clearances in 2.7.2.2 apply to hydraulic machine rooms?

Answer (2):

The 18 inches for maintenance clearance is determined per the design of the unit and the manufacturers recommendations of where maintenance access is needed.

A17 Standards Committee Approval: September 23, 2004

Interpretations Approved at the January 2005 A17 Standards Committee Meeting

Inquiry 04-11

Subject: Requirement 2.13.4.2.3, Door Force

Edition: ASME A17.1 – 2000

Question (1):

Does the term "from rest" mean from a motor stalled situation?

Answer (1):

No, "from rest" is when the doors are stalled.

Question (2):

Does the term "from rest" mean from an off to an on activation of the closer?

Answer (2):

No, see answer to (1).

Question (3):

Does this requirement preclude the use of ramping current edges which do not permit the door to stop but instantaneous reverse when an obstacle occurs within one third and two thirds of the travel?

Answer (3):

No, however compliance with 8.10.2.2.1(h) shall still be demonstrated.

Question (4):

Does this requirement outline the only means and method of testing permitted by the inspection authority?

Answer (4):

No, requirement 2.13.4.2.3 specifies the maximum force and region of travel in which it is measured. See also 8.10.2.2.1(h) for inspection requirements and procedures that may be used via reference to the Inspections Guide.

Question (5):

Are these requirements to identify means of testing?

Answer (5):

No. See answer to (4).

Question (6):

What do you tell an inspector who uses the requirements as the only means and method of testing?

Answer (6):

See above answers.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-14

Subject: Part 8 General Requirements, Scope

Edition: ASME A17.1 – 2000, including A17.1a-2002

Question (1):

Does this part require **retroactive** system upgrades for elevators installed or modernized before the date of the standard publication if no work other than regular maintenance procedures are performed? Example: 8.6.5.8 safety bulkhead requirements for below ground cylinders with no evidence of unexplained oil loss or other voluntary upgrading installed prior to 1971 would require unjustified renewal of cylinders or system alterations using a car safety device.

Answer (1):

Yes. See requirement 8.6.1.1.3.

Question (2):

If the response is yes, what is the purpose of A17.3-2002 Section 4.3.3.(a)?

Answer (2):

A17.3 is a stand-alone code. See General paragraph of the A17.3 Preface.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-18

Subject: Requirement 2.1.6, Projections, Recesses and Setbacks in Hoistway Enclosure

Edition: ASME A17.1-2000

Background:

The rear wall of a new hoistway for an observation elevator includes a glass and aluminum window system. The window system is set into the wall toward the outside of the hoistway greater than 4 inches. The bottom ledge is beveled at 75 degrees with the horizontal. The window mullions project less than 4 inches away from the glass toward the inside of the hoistway.

Question (1):

Is the window system a “recess” and therefore not permitted by Req. 2.1.6.2(a), or does this window system comply with Req. 2.1.6.2 (d) as a “setback” assuming it is provided with a proper bevel at the bottom?

Answer (1):

The intent of the terms “recess” versus “setback” is unclear, as the requirement was originally developed in the 1950’s.

Question (2):

Must the beveling of a setback begin at the edge of the hoistway wall or may it create a ledge up to 4”?

Answer (2):

The entire horizontal surface of a setback must be beveled.

Question (3):

Could you define a recess and a setback?

Answer (3):

The terms are not defined in A17.1.

Question (4):

Is either definition dependent upon the recess or setback extending the full width of the hoistway?

Answer (4):

See answer to question 3.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-24

Subject: Requirement 8.7.2.27.5, Change in Type of Motion Control
Requirement 8.7.2.27.6, Change in Type of Operation Control

Edition: ASME A17.1-2000

Question (1):

When replacing a mechanical selector on existing elevator with a digital selector that does not change any controller functions, is this considered a change in either motion or operation control and covered by 8.7.2.27.5 or 8.7.2.27.6?

Answer (1):

No.

Question (2):

If the answer is “yes” then does this installation have to meet the requirements of 2.27, the “emergency operation and signaling devices” including fire service?

Answer (2):

See response to question (1).

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-27

Subject: Requirement 5.7.19, Operating Devices and Control Equipment

Edition: ASME A17.1-2000, including through A17.1a-2002

Question:

If inspection operation is not provided does the controller need “car door bypass” and “hoistway door bypass” switches?

Answer:

No.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-28

Subject: Rules 211.3a(6) & 211.3c(1)(b)
Requirements 2.27.3.1.6(f) & 2.27.3.3.1(b)

Edition: A17.1b-1995 and A17.1-1996 including through A17.1d-2000
A17.1-2000, including A17.1b-2003

Question:

These Rules/Requirements state that all directional lanterns shall be extinguished and remain inoperative throughout Fire Phase I and II operation. However, it also states that position indicators in the car, at the designated level and at the central control station shall remain operative for fire department use. Since position indicators typically indicate direction as well as floor position, is it either

- a) required, or
- b) permissible

to keep the direction arrows, which are inherently part of the position indicator(s) that are located as specified in the referenced requirements, operative throughout fire service?

Answer:

This is not addressed in the code.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-29

Subject: Requirement 2.19.2, Protection Against Unintended Car Movement

Edition: A17.1 - 2000

Question:

Do the requirements of 2.19.2 apply when the elevator is parked at a landing under the following conditions?

- (a) With the In-Car inspection switch in the "ON" position?
- (b) With the elevator on Independent Service?
- (c) When the car is placed out of service and power is not turned off?
- (d) When the car is on either "Phase I or II Firefighters' Emergency Operation"?
- (e) When the elevator is on any of the following Automatic operation, hospital service, and car top inspection?

Answer:

- (a) Yes.
- (b) Yes.
- (c) Yes.
- (d) Yes.
- (e) Yes.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-30

Subject: Requirements 2.19.2.2(a)(4) and 2.19.1.2(a)(4)
Ascending Car Overspeed and Unintended Movement Protection

Edition: A17.1 - 2000

Background:

While testing a Rope Gripper (emergency brake), which when operated will stop an ascending overspeeding car or unintended movement from a landing, the controlling software for the unintended movement functioned in the following manor:

The means to reset this device is done by manually removing power from the controller and turning the power back on.

Question:

Does the term manually reset in rule 2.19.1.2(a)(4), were it states that *the detection means shall remain actuated until manually reset, and the car shall not start or run unless the detection means is reset*, meet the requirement, when an unintentional loss of power resets the detection means?

Answer:

No.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-31

Subject: Requirement 2.27.3.2.6, Heat Detectors

Edition: A17.1-2004

Background:

Requirement 2.27.3.2.6 states that, when activated, heat detector [2.27.3.2.1(d)] in the machine room shall cause the visual signal [see 2.27.3.1.6(h) and Fig. 2.27.3.1.6(h)] to illuminate intermittently only in a car(s) with equipment in that machine room.

Question (1):

What are the required location(s) of the heat detectors that apparently should have been listed in 2.27.3.2.1(d) (e.g., machine room, hoistway, at each floor, etc.)?

Answer (1):

There are no required locations for heat detectors in A17.1.

Question (2):

(a) Are these heat detectors required or permitted?

(b) Would a heat detector be required or permitted in a machine room without sprinklers?

Answer (2):

(a) Heat detectors are not required or prohibited.

(b) Heat detectors are not required or prohibited.

Question (3):

Does the machine room heat detector that should have been listed in 2.27.3.2.1(d) necessarily cause the machine room sprinklers to activate, and if so, would not this also cause the main line power supply to be automatically disconnected, in accordance with 2.8.2.3.2, thereby preventing any type of response from the elevator?

Answer (3):

This is outside the scope of A17.1.

Question (4):

Assuming that the machine room heat detector that should have been listed in 2.27.3.2.1(d) does not cause the main line power supply to be automatically disconnected or the machine room sprinklers to activate, if this machine room heat detector activates but the smoke detector does not, aside from the requirement to flash the fire hat, how should the elevator respond (e.g., should it complete a Fire Phase I return, stop at the next floor and remain stopped, continue on normal operation, other)?

Answer (4):

This is outside the scope of the current code requirements.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-32

Subject: Requirement 2.27.3.3.1

Edition: A17.1 – 2000 including A17.1a-2003

Background:

The second sentence of requirement 2.27.3.3.1 reads as follows: “The door open and close buttons shall be labeled ‘OPEN’ and ‘CLOSE’”.

Question (1):

Does this mean the wording must be on the face of the button itself?

Answer (1):

No

Question (2):

Can an applied label or engraved label be placed adjacent to the button on the car station?

Answer (2):

Yes

Question (3):

Can the words be on the button bezel?

Answer (3):

Yes

Question (4):

Usually ASME spells out what the character height of required wording is. Is there a requirement in the case of these “OPEN” and “CLOSE” labels?

Answer (4):

No

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-33

Subject: Requirement 2.19.2 – Protection Against Unintended Car Movement

Edition: A17.1 – 2000

Question:

Is Protection Against Unintended Car Movement required to function on inspection operation?

Answer:

Yes, see also Inquiry 04-29.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-35

Subject: Requirement 2.27.3.3.1(m)

Edition: A17.1 – 2004

Background:

This requirement states that when the stop switch located in the firefighter's operating panel is turned to the "RUN" position from the "STOP" position, the car shall not move, except for leveling, until a call is entered.

Question (1):

(1) When the firefighter's stop switch is turned to the "RUN" position from the "STOP" position, if the car is within the leveling zone, is the car required to level into the floor?

Answer (1):

(1) No

Question (2):

Is the firefighter's stop switch required to be operative during all modes of operation? If the answer is yes, please answer the following questions (assume that an individual who has access to the key for the firefighter's operation panel has that panel open in the following situations):

(a) If the firefighter's stop switch is activated during Fire Phase I recall, is it either

(1) permissible or

(2) required

to resume Phase I recall when the switch is moved to the "RUN" position from the "STOP" position?

(b) If the firefighter's stop switch is moved from "STOP" to "RUN" during normal, automatic operation

(1) is its operation required to conform to the same operation as described in 2.27.3.3.1(m), or

(2) does the car return to the operation in effect at that time?

Answer (2):

(2) Yes

(2a) Required

(2b(1)) No

(2b(2)) Yes

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-36

Subject: Requirements 2.12.7.3, Hoistway Access Switches

Edition: ASME A17.1-2000

Question:

2.12.7.3 states, "The operation of the switch shall permit movement of the car with the hoistway door at this landing unlocked or not in the closed position, and with the car door or gate not in the closed position, subject to the requirements of 2.12.7.3.1 through 2.12.7.3.8." In the case of two openings at any floor where a hoistway access switch is installed, is it permissible to move the car on hoistway access with the car gate and/or hoistway door open at the entrance that does not have a hoistway access switch associated with it (e.g., if the top hoistway access switch is located adjacent to the front entrance, is it permissible to move the car with the rear car gate and/or top rear hoistway door open)?

Answer:

No, see 2.12.7.2.1 and 2.12.7.3.1.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-37

Subject: Rule 211.3(a), Phase I Emergency Recall Operation

Edition: A17.1 – 1996

Question:

For the following questions, assume the 3-position Phase I key switch is located at the front entrance and the car is already stopped at the designated level with the rear doors open when a fire alarm initiating device at another floor is first actuated. Also assume that both front and rear doors are automatic power-operated horizontally-sliding doors.

(1a) Is it permissible to close the rear doors before opening the front doors?

(1b) Is it required to close the rear doors before opening the front doors?

(2a) Is it permissible to render the rear door open button ineffective while the rear doors are in the process of closing (assume reduced kinetic energy during closing in accordance with Rule 112.4(a))?

(2b) Is it required to render the rear door open button ineffective while the rear doors are in the process of closing (assume reduced kinetic energy during closing in accordance with Rule 112.4(a))?

Answer:

(1a) Yes

(1b) No

(2a) No, see rule 112.5.

(2b) No

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-38

Subject: Rule 211.3c(1)(g), Call Cancel Button

Edition: A17.1 – 1996

Question:

This Rule states that when the call cancel button is activated, all registered calls shall be canceled and a traveling car shall stop at or before the next available landing.

In the case of a blind hoistway with "false floors" located at various points throughout for the purpose of position correction, is it permissible to stop the car at a false floor and wait there for the firefighter to enter a new car call? (NOTE: Assume there is no means by which to open the car door at these "false floors," and the car position indicator would most likely display an "X," or something else to that effect, when stopped at this location.)

Answer:

Yes, see Inquiry 95-45.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-39

Subject: Requirement 5.3.1.8, Light in Car

Edition: ASME A17.1 – 2004

Background:

Requirement 5.3.1.8.3 Light in Car – requires a light in the car. It does not contain any language regarding the glass used in the light fixtures. Requirement 5.3.1.8.1 Car Enclosure - requires that glass used in elevator cars comply with 2.14.1.8. Requirement 2.14.1.8 Glass in Elevator Cars provides requirements for panels of glass in enclosures and glass used to line walls or ceilings. It does not contain any language for glass in light fixtures. Requirement 2.14.7.3 Car Lighting Devices – requires glass used for lighting fixtures in electric elevators to comply with Requirement 2.14.1.8. Requirements 5.3.1.8.3 and 2.14.1.8 do not specifically cover glass in lighting fixtures and Section 5.3 does not refer to requirement 2.14.7.3 which specifically provides requirements for glass in lighting fixtures.

Question:

Are there requirements for the glass used in lighting fixtures on private residence elevators?

Answer:

No.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-42

Subject: Requirement 2.27.2.4.5, Emergency Power Selector Switches

Edition: A17.1 – 2000 including through A17.1b-2003

Question:

2.27.2.4.5 requires that the emergency power selector switch positions corresponding to the elevator identification numbers must override the automatic power selection, and that operation of the selector switch must not cause power to be removed from any elevator until the elevator is stopped. However, it doesn't give any further details on the proper sequence of events for an elevator that was already moving through the hoistway when the selector switch was operated. For each of the following scenarios, assume that the previously selected car is not on designated attendant, inspection or Phase II In-Car Emergency operation, and that it is already in motion on emergency or standby power operation when the selector switch is turned to one of the positions other than "AUTO" and a new car is selected to run. Please indicate which of the following operations are permissible and which are not. For those operations that are not compliant, please specify the Code Requirement(s) being violated:

- (a) The car that had been previously selected immediately makes an emergency stop (assuming it was moving away from the designated level), waits a few seconds, and then returns non-stop to the designated level. If the car had been traveling toward the designated level, it continues on to the designated level and stops there. The doors are then cycled.
- (b) The car that had been previously selected immediately makes an emergency stop (assuming it was moving away from the designated level), and then immediately returns non-stop to the designated level. If the car had been traveling toward the designated level, it continues on to the designated level and stops there. The doors are then cycled.
- (c) The car that had been previously selected reverses at or before the next available landing without opening its doors (assuming it was moving away from the designated level), and then returns non-stop to the designated level. If the car had been traveling toward the designated level, it continues on to the designated level and stops there. The doors are then cycled.
- (d) The car that had been previously selected proceeds to the next available floor in the direction of travel and stops. The doors are then cycled.

In each of the above scenarios, please assume that the newly selected car would then proceed to operate on emergency or standby power operation, accepting car and hall calls as appropriate.

Answer:

- (a) Not permitted, see 2.27.2.4.5.
- (b) Not permitted, see 2.27.2.4.5.
- (c) Permitted
- (d) Permitted

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-48

Subject: Requirement 2.19, Ascending Car Overspeed and Unintended Car Movement Protection

Edition: ASME A17.1 – 2000

Question (1):

Is the emergency brake conforming to 2.19.3 to be applied with unintended movement or overspeed in the up direction only?

Answer (1):

No, the emergency brake is required to operate in either direction with unintended car movement and in the case of overspeed in the up direction.

Question (2):

Is the emergency brake permitted to be applied if the overspeed is in the down direction?

Answer (2):

The Code does not address this issue. The operation described is neither required nor prohibited. See Inquiry 02-34.

Question (3):

Is the emergency brake permitted to be applied when normal stops are made, if resetting is not required?

Answer (3):

The emergency brake is permitted to be activated during normal elevator stops as long as the emergency brake is applied to and released from a stationary braking surface (see 2.19.3.2(c)).

Question (4):

Is the "Protection Against Unintended Car Movement", rule 2.19.2 as required by rule 2.26.2.30 also required for "Inspection Operation", rules 2.26.1.4 and 2.26.1.5?"

Answer (4):

Yes, see also Inquiry 04-33.

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-49

Subject: Requirements 2.26.9.3 & 2.26.9.4, Software System Failure

Edition: ASME A17.1 – 2000 including through A17.1b-2003

Background:

2.26.9.3 requires that the occurrence of a "software system failure" shall not cause any of the unsafe conditions listed in paragraphs (a) through (e). 2.26.9.4 requires that redundant devices used to satisfy 2.26.9.3 in the determination of the occurrence of a software system failure shall be checked prior to the start of the elevator from a landing, when on automatic operation and that the car not be permitted to restart if such a failure is detected. It goes on to further state that implementation of redundancy by a software system is permitted, provided that the removal of power from the driving machine motor and brake is not solely dependent on software-controlled means.

Question:

Does this mean that it is permissible to use redundant software systems (i.e., two or more separate and independent processors) to implement the safety functions in 2.26.9.3(a)-(e) that do not directly involve removing power from the driving machine motor and brake?

Answer:

Yes, provided that requirement 2.26.9.4 is met, i.e. "provided that the removal of power from the driving machine motor and brake is not solely dependent on software-controlled means".

A17 Standards Committee Approval: January 27, 2005

Inquiry 04-50

Subject: Requirements 2.19.3.2 and 2.24.8.2

Edition: ASME A17.1 – 2000

Background:

2.19.3.2 states that the emergency brake is permitted to decelerate the car by acting on the brake drum or braking surface of the driving machine brake, provided that the driving-machine brake is integral with or directly attached to the driving-machine sheave, and the emergency brake is independent of the driving-machine brake.

Question:

If the driving-machine has two independent brake shoes or calipers (one to satisfy the requirement for a driving-machine brake in 2.24.8.2, and the other to satisfy the requirement for an emergency brake in 2.19.3) that are compliant with the above mechanical requirements, but both shoes/calipers are controlled by the same electrical circuit, is this implementation compliant?

Answer:

The implementation described is not prohibited as long as the requirements of 2.19.1, 2.19.2 and 2.19.3 are met.

A17 Standards Committee Approval: January 27, 2005