

Subject: Major and Minor Alterations GUIDELINES

Introduction:

This information document is issued to all SCOs as a **Guide** as to what constitutes major alteration.

Definitions:

ED, PR and AR Permit Regulation:

Major Alteration means an alteration that, in the opinion of a safety codes officer, significantly changes the structural or operational characteristics of the original design, layout drawings, data or any other information submitted in support of an application for a permit for the elevating device, passenger ropeway or fixed amusement ride;

Elevating Devices Codes Regulation AR 192/2015

- 8.10.1.1.2 A person who installs or makes a **major alteration** to equipment must perform all of the applicable tests specified by Requirements 8.10.2 to 8.10.5 in the presence of an inspector specified in Requirement 8.10.1.1.1.
- 8.10.1.1.2.1 A person who alters equipment must perform all of the applicable tests specified by Requirements 8.10.2 to 8.10.5.

ASME A17.1-2013/CSA B44-13

Alteration: any change to equipment, including its parts, components, and/or subsystems, other than maintenance, repair, or replacement.

Replacement: the substitution of a device or component and/or subsystems, in its entirety, with a unit that is basically the same as the original for the purpose of ensuring performance in accordance with applicable Code requirements (see CSA B44-07 8.6.12.5 where replacement of specific components constitutes an alteration)

Specific Details

Major Alterations: Table A

A Major Alteration submission/application must <u>include the seal of an Alberta professional engineer approving</u> the design drawings and specifications for a <u>major alteration</u> to an existing elevating device, and the professional engineer must verify the accuracy of the contents of the technical information package.



Minor Alterations: Table B

A Minor Alteration means an alteration to an elevating device that is not a "major alteration".

Therefore, all alterations that do not fall under the list of major alterations will be considered a minor alteration. Table B lists the minor alterations that will require inspection.

Multiple Minor Alterations (single device): More than one minor alteration undertaken on a single device may constitute a MAJOR alteration. A complete scope of work should be submitted and reviewed by two level 2 SCOs to determine if the project is now considered as MAJOR.

Type of inspections required:

- 1. Acceptance Inspection (A) is required for all Major Alterations
- 2. **Special Inspection (SI)** is required for Minor Alterations listed. This inspection may be of a narrow scope limited to only the specific item altered. These items may not require Alberta Professional Engineer endorsement.

Implementation:

This information bulletin implanted immediately

Original signed by:

Dean McKernon

AEDARSA VP of Operations



ELECTRIC ELEVATORS Table A			
#	MAJOR ALTERATIONS DETAILS	Inspection Type	Code Reference
1	Hoistway enclosure walls (Structural)	S.I.	8.7.2.1.1
2	Location of the C.W.	Α	8.7.2.3
3	Vertical clearances	Α	8.7.2.4
4	Horizontal clearances	Α	8.7.2.5
5	Protection of space below hoistway	Α	8.7.2.6
6	Machine beams & foundation	Α	8.7.2.9
7	Hoistway entrances & openings	Α	8.7.2.10
8	Hoistway door locking devices & access switch	Α	8.7.2.11
9	Car enclosure, car doors & gates	S.I.	8.7.2.14
10	Car frame & platform	Α	8.7.2.15
11	Capacity, loading, classification	Α	8.7.2.16
12	Change in rise & rated speed	Α	8.7.2.17
13	Car & CW safeties	Α	8.7.2.18
14	Speed governors & governor ropes	Α	8.7.2.19
15	Ascending car & unintended movement	Α	8.7.2.20
16	Suspension ropes & their connections	Α	8.7.2.21
17	Counterweights	S.I.	8.7.2.22
18	Buffers & bumpers	Α	8.7.2.23
19	Guide rails, supports & fastenings	Α	8.7.2.24
20	Driving machines & sheaves	Α	8.7.2.25
21	Operating devices & control equipment	Α	8.7.2.27
22	FEO devices	Α	8.7.2.28

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	HYDRAULIC ELEVATOR Table	A	
#	MAJOR ALTERATIONS DETAILS	Type of Inspection Required	Code Reference
23	Hoistway enclosure walls (Structural)	S.I.	8.7.3.1.1
24	Location of the C.W.	Α	8.7.3.3
25	Vertical clearances	Α	8.7.3.4
26	Horizontal clearances	Α	8.7.3.5
27	Protection of space below hoistway	Α	8.7.3.6
28	Machine beams & foundation	Α	8.7.3.9
39	Hoistway entrances & openings	Α	8.7.3.10
30	Hoistway door locking devices & access switches	Α	8.7.3.11
31	Car enclosure, car doors & gates	S.I.	8.7.3.14
32	Safeties (car/CW gripper)	Α	8.7.3.15
33	Speed governors & governor ropes	Α	8.7.3.16
34	Change in type of service	Α	8.7.3.17
35	Change in class of loading	Α	8.7.3.18
36	Carrying of passenger	Α	8.7.3.19
37	Increase in rated load	Α	8.7.3.20
38	Increase in deadweight of the car	Α	8.7.3.21
39	Change in rise or rated speed	Α	8.7.3.22
40	Hydraulic cylinder	Α	8.7.3.23
41	Hydraulic plungers	Α	8.7.3.23.2
42	Plunger Gripper	Α	8.7.3.23.7
43	Suspension ropes & their connections	Α	8.7.3.25
44	Counterweight alteration	Α	8.7.3.26
45	Buffers & bumpers	Α	8.7.3.27
46	Guide rails, supports & fastenings	Α	8.7.3.28
47	Tanks	Α	8.7.3.29
48	Operating devices & control equipment	Α	8.7.3.31

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	ESCALATORS AND MOVING	G WALKS Table A	
#	MAJOR ALTERATIONS DETAILS	Type of Inspection Required	Code Reference
51	Relocation of Escalators	Α	8.7.6.1.2
52	Relocation of Moving walks	Α	8.7.6.2.2
53	Construction Requirements for Escalators	Α	8.7.6.1.5
54	Construction Requirements for Moving Walks	Α	8.7.6.2.5
55	Handrails of an Escalator	Α	8.7.6.1.6
56	Handrails of a Moving Walk	Α	8.7.6.2.6
57	Escalators Step System	Α	8.7.6.1.7
58	Moving Walk Treadway System	Α	8.7.6.2.7
59	Escalators Combplate	Α	8.7.6.1.8
60	Moving Walk Combplate	Α	8.7.6.2.8
61	Escalators Trusses and Girders	Α	8.7.6.1.9
62	Moving Walk Trusses and Girders	Α	8.7.6.2.9
63	Escalators Step Wheel Tracks	Α	8.7.6.1.10
64	Moving Walk Tracks	Α	8.7.6.2.10
65	Escalators Rated Load and Speed	Α	8.7.6.1.11
66	Moving Walk Rated Load and Speed	Α	8.7.6.2.11
67	Escalators Driving Machine, Motor, and Brake	Α	8.7.6.1.12
68	Moving Walk Driving Machine, Motor, and Brake	Α	8.7.6.2.12
69	Escalators Operating and Safety Devices	Α	8.7.6.1.13
70	Moving Walk Operating and Safety Devices	Α	8.7.6.2.13
71	Escalators Lighting, Access, and Electrical Work	A	8.7.6.1.14
72	Moving Walks Lighting, Access, and Electrical Work	Α	8.7.6.2.14
73	Escalators Controller	Α	8.7.6.1.16
74	Moving Walks Controller	Α	8.7.6.2.15

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	Table I	В	
#	MINOR ALTERATIONS DETAILS	Type of Inspection Required	Code Reference
1	Machine room & machine space alteration	S.I.	8.7.2.7
2	Electrical equipment, wiring, pipes in Hwy & M/R	S.I.	8.7.2.8
3	Alteration of Valves	Hydraulic Elevator Tests Declaration	8.7.3.24
4	Restricted Access on Car Calls	Restricted Access and FEO Phase II Operation Tests Declaration	
5	Protection of floor opening of an Escalator	S.I.	8.7.6.1.3
6	Protection of floor opening of a Moving Walks	S.I.	8.7.6.2.3
7	Protection of Trusses and Machinery Spaces Against Fire on Escalators	S.I.	8.7.6.1.4
8	Protection of Trusses and Machinery Spaces Against Fire on Moving Walks	S.I.	8.7.6.2.4
9	Entrance and Egress on Escalators	S.I.	8.7.6.1.15
0	Driving Machine and Sheaves (Guarding of Equipment)	S.I.	8.7.2.25.1(a)
11	Internal Cab Modernization	S.I.	See Information Bulletin no: IBE20-001

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