Stage Machinery Working Group
E1.42 - 202x, Safety Standard for Entertainment Lifts
Proposed Public Review 1 Comment Resolutions

Reference document: E1.42 - 202x, *Safety Standard for Entertainment Lifts* (Document number SL/2022-10011r1)

ANSI Public review period: 10 October 2022 through 05 December 2022

Question: In your opinion, do you think the requirements of E1.42 - 202x*, Safety Standard for Entertainment Lifts* (DCN SL/2022-10011r1) are reasonable, and adequately address the intended subject matter?

Please answer the question using one of the options below. Select “Yes”, “Yes, but…” (provide comments to support your opinion), or “No, with reasons” (the document’s requirements are unacceptable or unreasonable).

Responses:

Harry Beauregard – Creative Conners, Inc (HB)	No, with reasons
Joseph Jeremy – Niscon, Inc (JJ)	Yes, but...

Robert Haycock (RH) submitted comments outside of the public review period. They are included as part of this resolution summary.

Individual Comments:

No.	Commenter	Ref. section	Comment	Proposed resolution
1	JJ	General	When referring to the person who operates the equipment replace Operator with User to avoid confusion with Switch Operators.	Accept in Principle Replace “operator” with ‘Lift Operator” to clarify. “User” is too general of a term to use as a replacement since the lift operator has specific duties and responsibilities.
2	JJ	General	Reconsider the numbering of some sub-articles. The document may read better when bullets are used. For example bullets are used in 9.3.3 but sub-article numbering in 9.4.4. Bullets would make 9.4.4 clearer. This is a general note for the entire document as the use of bullets is inconsistent.	Accept
3	JJ	Foreword	The foreword does not specifically exclude lifts used for specific purpose of performance. Please consider ensuring that the document refers to lifts that are a permanent and integral part of the performance space. From my review it appears that the intention of TG-1.42 was to exclude specialty lifts and only include stage lifts, compensation lifts, orchestra lifts, piano lifts, and sound cockpit lifts. If this is the case perhaps naming these lift types specifically in the	Reject. The Scope section includes examples of lifts covered by this standard. Lifts used for a specific purpose of performance are neither included nor excluded. Many of these requirements may be applicable and provide guidance to designers and an AHJ.

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			foreword or purpose would be appropriate.	
4	JJ	1.1.2	Heading not bolded	Accept, this paragraph has no heading, but the numbering will be bolded.
5	JJ	1.2.1	How does this standard safeguard health and the general welfare of what or whom? Suggested edit: The purpose of this standard is to establish the minimum requirements for the safe operation of Entertainment Lifts and the prevention of serious injury to any persons who may come in contact with same.	Reject. This standard safeguards health, safety, and general welfare by establishing minimum standards.
6	HB	Definitions	3.7 dead load; Add something to the effect "including parts of the lift machinery that load the actuator, such as the self-weight of push chains on a lift in it's up position".	Accept in Principle dead load: The weight of the lift platform structure, flooring, skirts, and permanently installed equipment. The dead load includes the weight of any parts of the lift machinery supported by the actuators.
7	HB	Definitions	3.26 override; Remove keyed or protected requirement. Protection is not intrinsic to the definition of an override. Later sections physically limit access to controls, and adding these measures tends to result in them being defeated (e.g. key lives in switch, button taped depressed, foot pedal with wood shim wedged) rather than truly enhancing safety.	Accept
8	HB	Definitions	3.29 pressure sensitive safety edge: Need to define acceptable gap at corners. I'd propose not more than 1" between sections. Currently says "continuous" but this is not practical at corners, e.g. rectolinear platform typically is composed of (4) pieces. At each corner, (1) section runs to corner, and the other is held short, but you need some gap to tuck cable ends inside platform and make electrical terminations. If there is no gap, then the cables either A) extend outside the footprint of the sensing edge or B) run underneath the sensing edge so they're the first thing to get damaged. <1" gap would still perform acceptably per 7.4.2 with 3" test rod.	Accept in Principle Definitions cannot specify requirements so add requirements to 7.3.1.3 that gaps in safety edges shall not exceed 1 inch or avoid detection by a 3” diameter test rod placed in any location.
9	JJ	Definitions	3.40 SIL: Delete definition of SIL in favour of referencing "applied safety standards" should the application be constructed to meet with PL standards.	Accept Definition has been deleted and paragraph 6.7.2.4 was revised using commenter’s proposed text from comment 19. Fig 1 has also been revised to replace “SIL3 Certification” with “Safety Function”
10	JJ	4 Risk Assessment and risk reduction	Please consider replacing this entire section with section 4 from E1.72 draft as it has been given a great deal of thought to the content. I think once read the TG-1.42 will agree that it has more relevant detail than what is in this public review draft.	Reject The current section addresses the RA/RR requirements and is integrated with the remainder of the standard. 4.4.1 requires the RA/RR to identify the limits of use for the lift which is not required by the E1.72 draft.

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11	HB	5.1.2 Static load	Why 3000lb concentrated load requirement? This makes small stage lifts, for example a 3' x 3' lifting area, impractical to produce, member and powertrain component sizing gets large for much smaller payload. The minimum lifting capacity would be 450lb per 5.1.3, but needs to take >6x static loading per 5.1.2. 3000lb value might be appropriate for permanently installed lifts but not for many temporarily installed lifts. 1000lb load on 1' x 1' area would be more reasonable for temporary lifts.	Reject. The uniformly distributed loads are not adequate for small lifts to protect against lift damage or failure from a concentrated load such as may result from the wheel load of a storage cart or forklift. 3000 lbs is a standard concentrated load requirement for stage floors.
12	JJ	5.4.2 Deflection	Provide definition of what 1/600 means in the annex. Not all readers will understand.	Reject. This is a common structural design requirements and is similar to the requirements in other standards, including E1.4-1 and E1.6-1.
13	JJ	5.6.1 Lateral movement	The statement reads "The lift shall be guided" this seems restrictive rather than prescriptive. Does a compensating lift that only travels 3" need to be guided? Please reconsider this statement and qualify it.	Reject. All lifts requires some form of guiding to limit lateral movement and resist horizontal loads. In some instances, with short travel heights, the guide may be provided by the lifting mechanism.
14	JJ	5.6.1 (editorial)	Suggested edit: Risks resulting from multiple lifts shall be determined by a risk assessment and mitigated. The residual risks shall not be more hazardous than those of a single lift.	Accept (this is actually 5.8.1)
15	JJ	5.6.4	additional qualification required Suggested edit: The design of lift guides shall consider seismic loading in accordance with the requirements of the local AHJ.	Accept in Principle. “Lift guides shall resist seismic forces required by applicable codes. These forces may be greater than the horizontal forces and may impact the design.”
16	HB	6.6.6 Control lock	Why is this necessary if you've already restricted access to the control system per 6.1.4 and 6.3.1.1? In practice, this becomes the password on a sticky note on the operator console. Could aforementioned physical limits to access to controls be acceptable?	Reject. A means of locking and unlocking a control system is more restrictive than simply limiting access per 6.1.4. 6.3.1.1 prevents unintentional or unauthorized actuation. 6.6.6 allows the locking means to be determined by the risk assessment and operational mandates; however, most state codes currently mandate a key lock.
17	HB	6.6.14 Loss of feedback	Does this requirement only apply to closed-loop control systems or is closed-loop control system required for PES? This wording is unclear. Perhaps just instead something like "Upon loss of positioning feedback, PES shall stop the lift...". Minimally add a definition for closed-loop control systems if retaining that wording.	Accept in Principle “Loss of signal from position sensors shall stop the lift”. (This is the same requirement as E1.6 paragraph 7.5.9)
18	HB	Figure 1	Reference for definition of travel limits; Missing in draft.	Accept Figure 1 is included in the draft.
19	JJ	6 Control	Some great work has been put into the control sections of many of the standards written since this standard was first	Reject This proposal reorganizes the current requirements and repeats requirements from other sections. The reorganization

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		systems	released. I believe it is time to rewrite Article 6 and all sub-articles in their entirety. Suggested Edit: Delete Article 6 and all sub-articles and replace with the following. ***6 Control Systems*** ***6.1 General*** *Control systems for Entertainment Lifts shall be designed and engineered to the requirements of the application.* ***6.2 User Controls*** *6.2.1 User Control Station. User control stations shall contain control means, feedback, and/or status indication as required for the safe and reliable operation of the lift system.* *6.2.1.1 Location of User Controls. User control stations shall be located where movement of the lift platform can be visually monitored via direct line-of-sight for all lift platform movements at all times, except as permitted in 6.2.1.2.* *6.2.1.2 When line-of-sight operation is not possible from a control station, a means of visual monitoring shall be provided to ensure safe operation during the movement of the lift platform. The method of monitoring shall be determined by the risk assessment.* *6.2.2 Control lock. Lift movement shall only be possible after unlocking the control system. The locking method shall be determined by a risk assessment and operational requirements.* *6.6.3 All User Control Stations shall be equipped with an E-Stop Actuator.* *6.6.4 Systems monitoring. The control system shall prevent hazardous operation of the lift by responding in a known manner to an error, fault, unsafe condition, or intended use parameters that have been exceeded and so reported by monitoring device(s) connected to the Control System.*	does not improve the clarity. Some of the sections, particularly under “User Controls” 6.6.5 and 6.6.6 add requirements which are excessive for a minimal system. In other cases, the proposal deletes critical requirements, for example the current 6.1.3 requires a lockable disconnect outside the access point while the proposed 6.7.1.2 only requires a lockable disconnect.

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			6.6.5 Fault annuciation. User control stations shall incorporate a method of fault annunciation. Faults may be indicated in detail or with a singular fault indicator. Where a single fault indicator is used additional details of the fault and/or the location of the faulted device shall be available to the User at or from another device in the Control System. *6.6.6 Ready indication. When the system is unlocked, enabled, and reset, the one active control station shall indicate that the system is in a ready state.* ***6.6.9 Programmable Electronic Systems (PES)*** *Programmable Electronic Systems provide the potential for additional operational and reporting options.* *6.6.9.1 PES Safety Functions. Functions integrated into a PES may also serve as safety functions. The implementation in the PES shall meet the same design, safety, and reliability requirements as a respective electromechanical solution. Failure of a PES shall not disable safety functions. When safety functions implemented in a PES fail, the lift system shall automatically stop.* *6.6.9.2 Data retention. In the case of programmable electronic systems (PES)s with telemetry, controls shall retain in non-volatile memory, position data and all data necessary for the performance of the lift.* *6.6.9.3 Restoration of position data. When actual and stored position data differ, setting or restoring position data for the lift shall only be done by qualified persons.* *6.6.10 Multiple controls interlock. Where a system has multiple control stations, hardware or software interlocks shall prevent the simultaneous control operations, other than E-stop, of the lift by more than one control station.* *6.6.11 Wireless control. Wireless control stations shall be permitted, but shall meet the same design and safety requirements as wired systems.* *6.6.12 Unintended start. The start and restart of lift platform*	

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			motion shall require deliberate action by the User. ***6.7 Electrical Equipment*** *Electrical Equipment shall be manufactured to conform to NFPA 79 Electrical Standard for Industrial Machinery as well as any local standards requirements as imposed by the local AHJ.* *All electrical equipment shall be assembled and installed in compliance with the requirements of the local AHJ over the region that the equipment has been installed for use.* *Compliance testing and labelling shall be performed to the acceptance of the AHJ by a recognized National Recognized Testing Laboratory (NRTL). These may include (but not be limited to):* *• Electrical Safety Authority* *• Underwriters Laboratories* *• Canadian Standards Association* *• Intertek* *• TÜV* ***6.7.1 Disconnect Switches*** *Disconnect Switches shall have an ampere rating at least 115% of the rated service demand of load applied.* ***6.7.1.2 Local Motor Disconnect*** *All entertainment lift machinery shall employ an appropriate and lockable means of local disconnect to isolate the machinery from motive power.* ***6.7.2 Electrical Enclosures*** *Electrical enclosures shall comply with UL508A enclosure type definitions.* ***6.7.2.1 Environmental Ratings*** *Electrical enclosures shall meet, when required, with the environmental conditions as required by the local AHJ* *6.7.3 Overcurrent protection All devices, wiring, and circuitry shall be appropriately protected against overcurrent.* *6.7.4 Reversing starters. Where the control system includes*	

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			the ability to reverse the rotation of an electric motor, a method of electrical and mechanical interlocks shall be provided to prevent accidental simultaneous activation in both directions. *6.7.5 Variable-speed Controllers. Electronic motor control drives shall be selected to be compatible with the motor type and load characteristics of the lift and shall contain control and parameter functions, including overload, as required by the application.* *6.7.6 Motor overload protection. Motor starters shall incorporate a thermal overload device. Motor drives shall be commissioned to prevent damage to the drive output and/or motor.* ***6.8 Operation*** *6.8.1 Faults. Faults shall not lead to hazardous operating conditions or prevent the control system from issuing a STOP when executed by the User.* *6.8.1.1* A method of temporarily overriding fault conditions shall be provided for the purpose of clearing a fault. The temporary override shall permit lift movement in a limited manner as determined by a risk assessment.* *6.8.1.2* Activation of the temporary override shall require additional User(s) as determined by the risk assessment.* *6.8.1.3 Resetting. Resetting the control system shall only be possible after all faults are cleared or temporary overrides are engaged.* *6.8.2 Hold-To-Run (HTR). Motion of the lift platform shall only be possible while the User maintains pressure on a control operator. Release of pressure by the User shall stop motion.* *6.8.2.1 Enable Stations. Where remote visual monitoring is not practical or sufficient, an enable station containing a momentary contact button shall be provided unless determined unnecessary by the risk assessment. The lift*	

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			platform shall only move while every applicable enable station is activated. *6.8.3 Brake release. Brakes shall only be released when all the actuators connected to the lift are energized. Brakes shall be engaged at all other times.* *6.8.4 Jogging.* The control system shall ensure that the duty cycle of start, stop, and reverse commands of contactors and/or drives cannot be exceeded.* *6.8.5 Stopping. Fixed speed and variable speed machinery will have different stopping and braking characteristics.* *- Upon removal of motive power supplied to fixed speed machinery power to the brake or brake rectifier shall be removed simultaneously or within a defined set time as per the machinery designer/engineer's and application requirements.* *- Upon initiation of STOP on a machine controlled with a variable speed controller the machine shall decelerate at a predetermined or programmable rate as per the machinery designer/engineer's and application requirements.* *6.8.6 Loss of Feedback. The loss of feedback from an encoding device shall not create a hazardous condition. The control system shall respond by bringing the machinery to a complete and safe stop, setting brakes, and provide fault indication to the User.* ***6.9 Constraining Travel*** *All lift control systems shall include sensors that constrain the travel distance of the lift platform in order to protect the lift system and building structure. The installation must contain, at minimum, devices to stop the platform at the upper and at the lower extremes of travel.* *6.9.1 Constraining Sensor definitions. Position or Travel sensors are known by many names while serving common functions. Refer to Figure 1, while referencing the definitions for ultimate limit, initial limit, and positioning, or target, limit.*	

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			Figure 1. Reference for definitions of travel limits (*NOTE* this was not included in the draft document) *6.9.1.1 Constraining Sensor Override. The circumstances requiring the override must be investigated by a qualified individual before an override is engaged and may only be performed by an authorized person in communication with the operator. Override devices must be located in a position so as to provide the authorized person a clear line of sight to the condition requiring the override. Indicators at all operator position(s) shall change state to inform the operator that the override has been engaged. The override device must not initiate motion without the direct action of the lift operator and may limit speed and direction of travel while engaged.* *6.9.1.2 Constraining Sensor Reset. In some control systems, some faults disable the control system, and further activity is not possible until the fault is cleared and a reset process initiated.* ***6.9.2 Constraining Sensor Actions*** *6.9.2.1* Ultimate limits are required in both directions of travel in all systems where a travel hazard exists.* *6.9.2.1.2 The ultimate (overtravel) limit shall be a snap-acting or positive break mechanical limit switch.* *6.9.2.1.3 Initiation of the ultimate limit switch shall immediately initiate a category 0 stop utilizing a means separate from the motor controller (reversing contactor or drive).* *Using a separate contactor between the line and the motor controller complies with this requirement. Using Safe Torque Off" (STO) input or certified "Safe Off" input complies with this requirement.* *6.9.2.1.4 Further operation of the lift in either direction shall be restricted. Restarting the lift after activation of this sensor shall require operation of a safety override device. While the*	

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			safety override device is activated, the lift shall only be allowed to move in the opposite direction and away from the sensor. ***6.9.2.2 Initial limit.*** *6.9.2.2.1 Initial limits are required in both directions of travel in all systems where a travel hazard exists.* *6.9.2.2.2 Activation of an initial limit shall bring the lift to a stop before it activates the ultimate limit. When the initial limit is activated, movement in the opposite direction shall be allowed.* *6.9.2.2.3 Activation of an initial limit sensor shall be indicated at the control station.* *6.9.2.2.4 Means should be provided for temporarily overriding the initial limit sensors to test the ultimate limit switches.* *6.9.2.3 Positioning or target sensor. When operated at any speed and any load, activation of this sensor shall bring the lift platform to a safe stop at the predetermined position. Further operation of the shall not be restricted in either direction. Restarting the lift after activation of this sensor shall not require the operator to perform any special task.* *6.9.2.4 Encoder. Encoding systems may be employed to provide position sensing for all positions within the operating range of the lift platform. Encoding systems may also be employed to provide the function of the Initial Limit as long as the control system and the encoder are certified to meet the requirements of the safety standard applied. Encoding systems shall never be employed to act as ultimate limit sensors.* *6.9.3 Sensing devices – types. The type of sensing device applied to the individual lift installation shall be chosen with respects to function, reliability and safe operation as required by the control system and by risk assessment. All sensors shall be installed per the manufacturer's recommendations.*	

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			6.9.3.1 Mechanical sensors. All mechanical switches shall be snap-acting or positive break type. *6.9.3.2 Optical/Photo actuated sensor. Optical sensors must be capable of being sensed in all potential artificial atmospheres used within the venue.* *6.9.3.3 Electronic sensors. All electronic sensors shall be installed per the manufacturer's recommendations.* *6.9.4 Positioning tolerance. All sensors shall be selected, positioned and installed so as to provide positive, repeatable and accurate signaling to stop the lift at the intended stopping position.* *6.9.5 Sensor Annunciation. All sensors and bypass devices for sensors shall have their actions (state changes) visually indicated to the User at a centralized location or at User control station(s).* *6.9.6 Over-travel compensation. All sensors shall be positioned so as to allow for enough over-travel distance to compensate for drift, freewheel stopping or deceleration distance (the deceleration period) before the application of the braking system.* *6.9.7 Mechanically-struck switches. Mechanically struck limit switches or position sensors shall be installed so that the sensor is not damaged by overtravel or released back to its deactivated state during the deceleration period.* ***6.10 Multiple motor/actuator systems*** *6.10.1 Shared loading. Lifts employing multiple actuators that are not mechanically coupled shall cause a fault when the load is not divided between the actuators per the design intent.* *6.10.2 Fault interlocks. The faulting of one motor shall prevent the operation of associated coupled motors unless the system is designed to compensate for a motor failure.*	

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			6.10.3 Individual overloads. Each motor in a multiple motor system shall have an individual overload device ***6.11 Control Installation*** *Control installation shall be completed by competent person(s) and inspected by an authorized person prior to commissioning.* *6.11.1 Interconnection wiring. Cables and wiring between control equipment shall be installed in accordance with the applicable electrical code.*	
20	JJ	6.7.1 Sensor Definitions	Figure 1. Reference for definitions of travel limits - drawing missing.	Accept Figure 1 is included in the draft.
21	JJ	7 Safety Systems	Collect references to E-stop from section 6 and combine into new section 7 E-Stop and Safety Systems. Suggested Edit: delete entire section 7 and replace with the following: ***7 Safety and E-Stop Systems*** *The design and inclusion of risk mitigation devices of the E-Stop and Safety Systems shall be determined through the development and application of a risk asessment.* ***7.1 Safety devices**** *7.1.1 Activation. Safety device activation shall initiate a stop. The type of stop and allowable successive action shall be appropriate for the safety device or function activated, as determined by a risk assessment. Stops initiated by edge protection devices shall meet the requirements of 7.2.4.* *7.1.1.1 Activation response. A motor control center(s) shall include a separate safety contactor or other safety rated means of removing motor power in an E-stop condition. The switched terminals of the E-stop contactor or other means shall be in series with or integral to the directional contactors or the motor drive to ensure stopping has redundancy in the event of failure of a directional contactor or motor drive. The E-Stop system shall open the safety contactor or other means, upon activation of an E-Stop*	Accept in Principle Slight revisions required per comments 8 and 28 and 7.2 needs the numbering corrected.

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			actuator. *7.1.2 Device testing. All safety devices shall be capable of being individually tested for effectiveness and functionality. It shall be possible to perform these tests safely and non-destructively* *7.2 E-Stop System. An E-Stop system shall be included in the design of entertainment lift control systems. The E-Stop system shall provide the User with the ability to safely bring to a full stop all machinery in motion by activating an E-Stop Actuator. The E-Stop system shall be so designed that a decision to use it during an emergency event does not require the user to hesitate engaging it due to consideration of the possible resultant effects.The type of stop shall be determined by a risk assessment.* ***7.2.2 Switch operators (buttons) and switch contacts*** *7.2.2.1 Buttons for activating E-stop functions shall be normally closed and shall have a positive break operation.* *7.2.2.2* The types of buttons permitted for E-stop functions shall include, but are not limited to, the following:* *(1) Push-button operators* *(2) Pull-cord operators* *7.2.2.3 E-stop operators shall not be flat form factor or graphic representations based on software applications.* *7.2.2.4 E-stop operators shall be colored red. The background immediately around E-stop operators shall be colored yellow.* *7.2.3 E-Stop Fault. Activation of any E-stop device shall create a fault condition.* *7.2.4 Restart. Motion following an E-stop shall be permitted only after the fault condition has been corrected. Removing or resetting of the E-stop fault condition shall not restart the lift system, but shall only permit restarting.* ***7.3 Shear and crushing protection***	

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			7.3.1 Use *7.3.1.1 Any projection or edge within 9 inches (22.8 cm) of the edge of the lift platform at any point of its travel, including projections or edges of the lift platform itself, shall be protected against shear and crushing hazards in any direction of lift platform travel.* *7.3.1.2* Edge protection devices shall be any combination of pressure sensitive safety edges, optical beam detectors, or other suitable active guarding mechanism, except as noted in 7.3.1.3 below.* *7.3.1.3* Exception. A continuous bevel shall be a permitted option where horizontal projections are less than 1 inch (25 mm). The bevel shall be not less than 60 degrees from horizontal.* *7.3.2 Fail-safe. Edge protection devices shall be fail-safe. Disconnection of or damage to any component of an edge guard shall cause a fault condition.* *7.3.3 Test force. Edge protection devices shall not exert a force greater than 34 lbs (150 N) on a 3 inch (76 mm) diameter test rod before activation nor a force greater than 90 lbs (400 N) before the Lift platform comes to a complete stop.* *7.3.4 Activation of edge protection device. Activation of an edge protection device shall stop the lift and the system shall indicate that the device has been activated.* *7.3.4.1 Activation of an edge protection device shall not cause the lift to automatically reverse direction.* *7.3.4.2 While edge protection devices are activated, motion shall only be possible in the direction opposite the edge protection device strike.* ***7.4 Guarding lift enclosure and machinery*** *7.4.1 Physical barriers. Physical barriers shall be employed*	

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			to control access into the lift enclosure and any lift machine room to prevent personnel from being exposed to a fall hazard or hazard presented by coming in contact with machinery or moving parts. ***7.4.2 Unintended access to lift pit*** *7.4.2.1 Where a lift platform can be raised above the audience level, access under the lift platform from the audience side shall be prevented.* *7.4.2.2 Where a lift platform can be raised above stage level, access under the lift platform from the stage side shall be prevented.* *7.4.3 Barrier monitoring. All permanent physical barriers which are part of the lift system shall be monitored by the lift control system. An open barrier condition shall cause a fault and require a system reset.* *7.4.4 Controlled access. Any physical barrier (such as a door or gate) that is used for passage into the lift enclosure for normal access shall be locked by the lift control system when opening the barrier would expose a fall hazard or hazard presented by coming in contact with machinery or moving parts.* *7.4.4.1 Bypass controlled access. Physical barriers shall have a bypass system to allow competent persons to access the lift enclosure for service, maintenance and repair.* *7.4.4.2 Emergency egress. Physical barriers that provide egress from the lift enclosure at any level shall be provided with a mechanism for local emergency unlocking or unlatching and egress.* *7.4.4.3 Release systems. Physical barriers shall comply with local codes and be compatible with the latch mechanisms and door hardware.* *7.4.5 System or power failure. During system or power failure, the state of locks shall remain unchanged and the*	

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			mechanism for local emergency unlocking shall remain operable for a period not less than as required by applicable code requirements. *7.4.6 Emergency unlocking signage. Instructions for the local activation of emergency unlocking or unlatching release systems shall be posted on a sign near or on the egress point.* *7.4.7 Hazard signage. All openings that access any part of the mechanical equipment or the lift enclosure shall have a sign installed on or adjacent to the opening that identifies the hazard beyond the opening.* *7.4.8 Encroachment. Physical barriers shall not encroach into the lift hoistway when open or partially open.*	
22	JJ	8.8.1	If above edits are accepted correct reference article number.	Accept
23	JJ	Annex	If above edits are accepted correct Annex numbering.	Accept
24	RH	4.1	4.1 tells readers to "See annex note". No annex note for 4.1 is present in this draft. If this is in reference to an annex note associated with another clause, recommend clarifying with specific annex note reference for ease of reader use. If this is not in reference to an annex note found elsewhere, recommend adding a new annex note or deleting reference to annex from this clause as appropriate.	Accept reference to annex note deleted.
25	RH	4.4.3	4.4.3 references "Annex B". There is no annex B present in this draft.	Accept delete reference to Annex B
26	RH	6.7.1	6.7.1 references "Figure 1". A heading for figure 1 is present directly below 6.7.1 but no figure is present in this draft.	Accept figure 1 included
27	RH	6.7.2.1.3	6.7.2.1.3 references a "category 0 stop". No other reference to "category" classification of stops is present in this draft. Recommend either defining category 0 stop or adding additional information about category stop classifications to the body of the standard or annex.	Accept Add definitions for stop categories
28	RH	7.4.1.2	7.4.1.2 contains an internal reference to 7.3.1.3. There is no 7.3.1.3 in this standard as made available for public review. I believe that internal reference should be to 7.4.1.3 and text of 7.4.1.2 should read, in part, "[...]except as noted in 7.4.1.3 below."	Accept reference corrected.