SUMMARY OF MATERIAL INCORPORATED BY REFERENCE

815 KAR 4:025. Forms incorporated by reference.

"Elevator Inspection Violation Reference List for New and Existing Elevator Devices and Scheduling Checklist," Form EV-5, 5 pages

This form is a reference checklist containing the most common violations for new and existing elevator devices. The permit holder shall utilize this form to note any outstanding violations and submit it to the appropriate inspector 48 hours prior to scheduling a test time and date.

"Elevator Inspection Section" is amended to "Elevator Inspection Branch" to reflect the appropriate name.

References to a specific version of the ASME A17.1, Safety Code for Elevators and Escalators, and ASME A18.1, Platform Lifts and Stairway Chairlifts, are removed and "as referenced by the current edition of the Kentucky Building Code" is added to ensure the form remains current.

The words "is to" are replaced with "shall" to create a clear duty with respect to both the permit holder and the inspector.

The words "at the scheduled time of the test" are replaced with "48 hours prior to scheduling a test time and date" to reflect the appropriate policy.

The word capitalized word "Inspector" is replaced with "inspector" to correct a grammatical error.

References to a specific version of the NFPA 70 for electrical code violations, the NFPA 13 for sprinklers, and the NFPA 72 for fire alarm and firefighter emergency operations are removed so the form remains current.

The words "No person or company, including a contractor, owner, tenant, or elevator company may use the elevator to haul construction materials, furniture, or persons not directly related to the installation and construction of the elevator unless permitted by a temporary certificate of operation issued by the Chief Elevator Inspector" are replaced with "A temporary 90-Day Construction Use permit may be requested to transport construction personnel as well as tools and construction materials, which must be permanently fastened or secured to the building infrastructure. A permitted construction use elevator may not be used for any purpose except those performed by the permit holder and must at all times be operated by a trained operator with authorization from the permit holder." This amendment uses the appropriate name of the required permit and clarifies what types of use it allows. It also seeks to address concerns about damage to construction elevators caused by inappropriate use by instructing that materials are to be secured

and the elevator only operated by a trained individual with the permission of the permit holder.

The words "Additional Notes and Remarks" are added to indicate the purpose of the lines at the bottom of the first page.

References to a specific code section are removed from each checklist item throughout the remainder of the form to ensure the form remains current.

Outdated code sections and language are removed from various checklist items throughout to make the form current.

"Escalator Inspection Violation Reference List for New and Existing Escalators and Scheduling Checklist," Form EV-6

This form is a reference checklist containing the most common violations for new and existing escalators. The permit holder shall utilize this form to note any outstanding violations and submit it to the appropriate inspector 48 hours prior to scheduling a test time and date.

"Private Residence Inspection Violation Reference List for New Elevators and Scheduling Checklist," Form EV-7

The form is a reference checklist containing the most common violations for new elevators in private residences. The permit holder shall utilize this form to note any outstanding violations and submit it to the appropriate inspector 48 hours prior to scheduling a test time and date.

"Private Residence Chairlift Inspection Test Form," Form EV-8

This form is a checklist of the items that will be tested by the inspector for private residence chairlifts. The permit holder shall utilize this form to ensure all checklist items are capable of demonstration and submit it to the appropriate inspector 48 hours prior to scheduling a test time and date.

Commonwealth of Kentucky Elevator Inspection Branch

Elevator Inspection Violation Reference List for New and Existing Elevator Devices and Scheduling Checklist

EV-5 Updated 02-2026

The following list contains the violation narratives for the majority of violations issued by the Commonwealth of Kentucky Elevator Inspection Branch. The branch references the ASME A17.1, Safety Code for Elevators and Escalators, for the minimum elevator safety standard as well as the ASME A18.1, Platform Lifts and Stairway Chairlifts, for commercial accessible lifts as referenced by the current edition of the Kentucky Building Code.

Prior to obtaining an acceptance inspection for a new installation, the permit holder shall review the job site against this list and note any outstanding violations and why they exist. The permit holder shall review the statement below and submit it to the appropriate inspector 48 hours prior to scheduling a test time and date.

In addition, see the referenced documents of NFPA 70 for electrical code violations, the KentuckyBuilding Code for fire rating, NFPA 13 for sprinklers, and NFPA 72 for fire alarm and firefighter emergency operations.

Please Read Before Signing:

- **A Commonwealth of Kentucky elevator inspector must inspect an elevator, and a temporary or permanent certificate of operation shall be issued before an elevator may be used for any purpose.**
- **A temporary 90-Day Construction Use permit may be requested to transport construction personnel as well as tools and construction materials which must be permanently fastened or secured to the building infrastructure. A permitted construction use elevator may not be used for any purpose except those performed by the permit holder and must at all times be operated by a trained operator with authorization from the permit holder.**
- **Violation reference list must be corrected and emailed to the elevator inspector prior to rescheduling of the test.**

Provide State Elevator ID Number: _____

Name of Elevator Company: _____

Phone Number: _____ Fax Number: _____

Email: _____ License: _____

Certified by (Print Name): _____ **Signature:** _____

Date: _____

Passed: _____ Failed: _____

Additional Notes and Remarks:

_____

_____

_____

____ACCESS/ROOF-HOISTWAY

Access to and from the roof and machine room shall be by the means of a stairway. When access is over a sloping roof or a roof with vertical obstructions, a walkway shall be provided. Access shall be safe and convenient. It is prohibited to allow access to a machine room to non-authorized personnel. Doors that allow passage through a machine room to gain access to a roof area or other building equipment shall be prohibited. ASME A17.1.

____NON-ELEVATOR RELATED

All non-elevator-related piping and equipment shall be prohibited from entering or passing through the machine room.ASME A17.1.

____ELECTRICAL DISCONNECT

Electrical disconnects shall be lockable in the open position and properly located within sight of the elevator devices as outlined in NFPA 70. All disconnects shall be properly fused or utilize a non-self-resetting circuitbreaker. A lockable disconnect with overcurrent protection shall be located in the machine room serving the car lighting per NFPA 70. Advisory: The preferred location for electrical disconnects is near the jamb side ofthe machine room door in order to be readily accessible to qualified personnel.

____RECEPTACLES

Receptacles in the machine room and machinery spaces shall have GFCI protection either by a GFCI-type receptacle or a GFCI-type circuit breaker per NFPA 70. Warning signs shall be posted when there is power from more than one source. NFPA 70.

____ELECTRICAL CLEARANCE

All electrical clearances shall be provided and maintained in front of the controller and disconnect at all times. Advisory: It is interpreted that machine room doors that swing into the electrical clearance area endanger worker safety, are prohibited, and they shall meet the provisions of NFPA 70.

____MACHINE ROOM LIGHT

Permanent electric light shall be provided in all machine rooms and machine spaces. The illumination shall be not less than 19 foot candles at the floor. ASME A17.1.

____ELEC EQUIPMENT/CONTR/MACH

All electrical equipment, controllers, and machines shall be properly installed and grounded. NFPA 70 and ASME A17.1.
All electrical conduits shall be properly secured and routed in a workman like manner. See NFPA 70. A properly tested and maintained ABC type fire extinguisher of adequate size shall be provided in the machine room per ASME A17.1. The fire extinguisher in the machine room is to be of sufficient size to allow workers within the room to exit safely in the event that a fire within the machine room occurs during their maintenance procedures. The extinguisher is not meant to be returned to the room to fight the fire. The extinguisher is to be located in an area of the room that will allow easy access to the extinguisher by workers. It is recommended that, when possible, the extinguisher be located near the jamb side of the elevator room entrance door.
All conductors used in raceways and for hoistway door interlock wiring shall be flame-retardant. NFPA 70.

____DOOR SELF-CLOSE/LOCK

The machine room door shall be self-closing and self-locking. The door shall always require a key to be opened from the outside but can always be opened from the inside without a key. ASME A17.1.
The clear headroom in a machine room shall be not less than 7 feet. This shall be measured from any overhead obstruction. ASME A17.1.
Machine rooms shall be provided with natural or mechanical means to keep the ambient air temperature and humidity inthe range specified by the elevator equipment manufacturer to ensure safe and normal operation of the elevator.
The temperature and humidity range shall be permanently posted in the machine room. Kentucky Building Code.

____COMMUNICATION

Where required, a permanent means of communication shall be provided between the elevator car and remote machine/control room. ASME A17.1.

____SPRINKERS (MACHINE ROOM)

Sprinklers may serve a machine room via a branch line, when the machine room is located above the roof of the building, risers, return pipes, and branch lines for the machine room sprinkler(s) shall be permitted to be located in the hoistway between the top floor and the machine room, but they shall not pass through the machine room. ASME A17.1.

____SHUNT TRIP OPERATION

Power shall be removed from the main line disconnect prior to the application of the sprinkler, commonly referred toas "shunt-trip operation." ASME A17.1, NFPA 70, NFPA 72 and NFPA 13.

____EXPOSED EQUIPMENT

Exposed equipment shall be guarded. ASME A17.1.

For pits greater than 35 inches in depth, a pit ladder shall be provided with a handrail at least 48 inches above the landing, the rungs are to have at least 4 ½ inches of toe clearance; and be not less than 16 inches in width (with 9inches permitted)

A pit refuge area of not less than 24 inches to 42 inches in height (depending on available width) is required when thecar is on a fully compressed buffer. ASME A17.1.

____PIT STOP SWITCH

A pit stop switch shall be located within reach of this access floor, adjacent to the pit ladder and located about 18 inches abovethe landing in order to be accessible before stepping onto the pit ladder. ASME A17.1.

____2ND PIT STOP SWITCH

A second pit stop switch shall be provided when the pit exceeds 67 inches in depth and located approximately 47inches from the pit floor. ASME A17.1.

____LIGHT FOR PIT

A light for the pit shall be located so as to provide 10 foot candles lighting for the area. The switch shall be near the stop switch.The light shall be guarded. ASME A17.1.

____REQUIRED PIT LIGHT

The required pit lighting shall not be connected to the load side of the GFCI. NFPA 70.

____GFCI TYPE RECEPTACLE

A GFCI type receptacle shall be provided in pits and on car tops. NFPA 70.

____SPRINKLER IN HOISTWAY

When a sprinkler is present in the hoistway or pit area, all electrical conduit shall be enclosed in NEMA-4 and wiringshall be identified for use in wet locations. ASME A17.1

____RECEPTACLES

Receptacles for sump pumps shall conform to NFPA 70.

When firefighter's service is present, drains shall be provided for all passenger, freight, and LULA elevators. When a drain cannot be provided, a permanently installed sump pump shall be provided. Sump pump capacities are recommended to be 3,000 gallons per hour per elevator. The sump hole in the pit area shall be guarded with non-combustible material. All sump pumps are to discharge the fluid outside of the hoistway. See ASME A17.1. The purpose of the sump pump is to prevent the accumulation of water in the pit area originating from the interior of the building due to firefighting operations and to allow for the elevator to remain in service for operation underPhase II firefighter service. See ASME A17.1 and published ASME A17.1 interpretations and the Kentucky Plumbing Code. Oil sensing devices may be present on the sump pump, but electrical supply cords must not be longer than 6 feet and the auxiliary/control panel is to be installed outside of the pit.

____OFFSETS OR LEDGES

All offsets or ledges within the hoistway greater than 4 inches shall be tapered to not less than 75 degrees. ASMEA17.1.

____SPRINKLER IN HOISTWAY

Sprinklers provided in the hoistway, if required by the local jurisdiction, shall not interfere with the required clearances on top of the elevator car or the moving equipment within the hoistway. ASME A17.1

____BRANCH LINES

Only branch lines shall be permitted to serve the hoistway, and the line may not serve more than one level. ASMEA17.1

Power shall be removed from the main line disconnect prior to the application of the sprinkler. The device shall be located within 2 feet of each sprinkler head. Smoke detectors shall not be used to activate shunt trip devices. ASME A17.1 and NFPA 72.

____SPRINKLER HEADS

Sprinkler heads located in the pit area shall not be located more than 2 feet above the pit floor. NFPA 13 or ASME A 17.1 Shunt trip devices are not required for pit sprinkler heads if the location ofthe sprinkler head is in conformance with the previous statement.

____CLEARANCES

Top and bottom car and counterweight runby and vertical clearances shall meet the requirements of ASME A17.1 for traction/drum elevators and ASME A17.1 for hydraulic elevators.

Overhead working clearances shall be provided in the upper end of the hoistway. When the elevator is at extreme travel, a minimum of 43 inch refuge area is required for traction/drum elevators when the counterweight is on a fully compressed buffer pursuant to ASME A17.1, and a 43 inch refuge area is to be provided for hydraulic elevators(when on the stop ring) pursuant to ASME A17.1.

____HORIZONTAL/REFUGE

In any area outside the refuge space where the vertical clearance between the top of the car enclosure and the overhead structure shall be clearly marked. The marking shall consist of alternating 4-inches diagonal red and white stripes.In addition, a sign with the words "Danger Low Clearance" shall be prominently posted on the crosshead and be visible from the entrance. The sign shall be permanently and readily legible. ASME A17.1.

____MINIMUM/CROSSHEAD

A minimum of 24 inches shall be provided over the crosshead for counterweighted elevators. Beams are not tointerfere with these clearances. ASME A17.1.

A minimum of 6 inches of clearance shall remain between the top of any auxiliary devices on the car-top and the overhead structure when the car is at extreme upward travel (strike point) pursuant to ASME A17.1 fortraction/drum elevators and ASME A17.1 for hydraulic elevators. In addition, hydraulic elevator crossheads shall have a minimum of 12 inches of vertical clearance to the horizontal plane as described by the lowest point of the overhead structure.

____LULA/BOTTOM CLEARANCE

Bottom car clearances for LULA elevators shall conform to the requirements of ASME A17.1.

____LULA/TOP CLEARANCE

Car top clearances for LULA elevators in existing buildings for traction, drum, and hydraulic elevators shall conform to ASME A17.1.

____ESCAPE HATCH

Car top escape hatches shall be provided for LULA elevators when manual operation is not provided as described in ASME A17.1.

____TWO-WAY/24-HR COMMUNICATION

Two-way 24-hour voice communication shall be provided from the elevator car to a location that can take action per ASME A17.1 Item 2.27.1.1.3 and previous ASME interpretations. Advisory: Refer to the ICC A117.1, Accessible and Usable Buildings and Facilities, for additional requirements for "hands free" telephone operation. Fire-service initiating devices (smoke detectors) shall be properly located in the enclosed elevator lobbies and machine rooms. Initiating devices are required in the hoistway when a sprinkler head is located in the hoistway. ASME A17.1 and NFPA 72 for specific requirements for wiring methods and detector placement.

____SMOKE ACTIVATION

Smoke and not heat shall activate the fire-service initiating device unless approved by the jurisdiction having authority. NFPA 72 and ASME A17.1.

____FIRE ALARM/VISUAL

Either the fire alarm initiating device in the machine room or hoistway shall cause the visual signal in the car toilluminate intermittently. ASME A17.1.

____FIREFIGHTER SERVICE/LULA

Firefighters' service is not required for LULA elevators, but if provided, the installation shall meet the full provisions of ASME A17.1.

All glass used in construction of the hoistway enclosure shall be laminated. The laminated glass shall be markedwith the proper ASME Z97.1 laminated glass etching on each and every panel. ASME A17.1

____RESTRICTED OPENING DEVICES

All hoistway/car door restricted opening devices shall be installed pursuant to ASME A17.1.

Materials used on floor and walls of an elevator car enclosure shall adhere to the flame spread and smoke density requirement of ASME A17.1. The materials shall be certified and tested by the manufacturer for their end use configuration including adhesives.

____GLASS IN CAB
All glass used in the elevator cab shall meet the marking requirements of ASME A17.1.

____ILLUMINATION/LANDING
Illumination at the landing sill shall be not less than 10 foot candles. ASME A17.1.

____HOISTWAY DOOR GUIDES
Hoistway door guides and safety retainers shall conform to ASME A17.1

____ROPE SOCKETS/RETAINING CLIPS
Wedge rope sockets and retaining clips shall be installed. ASME A17.1.

____ANTI-ROTATION DEVICE
Anti-rotation devices shall be provided to prevent the rotation of the suspension ropes without restricting their movement horizontally or vertically. ASME A17.1.

____CONTROLLERS/UL/CSA
All elevator controllers shall be "UL" or "CSA" labeled as to conforming to the requirements of ASME A17.5. Elevator controllers for hydraulics and LULA Elevators shall conform to ASME A17.1.

____DOOR INTERLOCKS
All hoistway door interlocks shall be labeled as to conforming to the testing requirements of ASME A17.1 for hydraulics and LULA elevators.

____CODE DATA PLATES
Code data plates shall be installed. ASME A17.1.

____FIRE SERVICE INSTRUC
Fire service instructions shall be installed. ASME A17.1

____ID NUMBERING
Emergency identification numbering shall be provided when more than one elevator is in a hoistway or machine room. The following items shall be numbered: the driving machine, the mainline disconnect switch, the crosshead, and the car operating panel. ASME A17.1.

____HOISTWAY NUMBERS
Hoistway door floor numbers visible from within the hoistway shall be provided. ASME A17.1 for hydraulic elevators and LULA elevators.

____ROPE DATA TAGS
Rope data tags shall be installed pursuant to ASME A17.1 on the crosshead, wire rope fastenings, roped hydraulics and LULA elevators.

____PRESSURES POSTING
Full-load working pressures for hydraulic elevators shall be permanently posted. ASME A17.1 for LULA elevators.

____PUMP RELIEF VALVES
Pump relief valves shall be sealed after being set to the correct pressure pursuant to ASME A17.1
In-car capacity plate shall be installed. ASME A17.1 for LULAelevators.

____FREIGHT LOADING SIGN
Freight elevators shall be provided with a sign specifying the type of loading for which the elevator is designed. ASME A17.1.
Freight elevators not permitted to carry passengers shall have a sign reading, "This is not a passenger elevator. No persons other than the operator and freight handlers are permitted to ride on this elevator." ASME A17.

____MAINLINE DISCONNECT
For hydraulic elevators, a sign shall be placed on the mainline disconnect reading, "Keep switch closed except during maintenance, repair and inspection." ASME A17.1.

____CROSSHEAD DATA TAGS
Crosshead data tags shall be installed pursuant to ASME A17.1.

____GOVERNOR ROPE TAGS
Governor rope data tags shall be installed pursuant to ASME A17.1.

____TRIPPING SPEEDS TAGS
The tags indicating the governor tripping speeds shall be installed pursuant to ASME A17.1.

____CLEARANCE SIGNS
For LULA elevators, signs shall be posted in the pit or overhead whenever there is insufficient bottom car clearance or insufficient car top clearance. ASME A17.1.

____FIREFIGHTER SERVICE
Firefighter Service shall function properly pursuant to ASME A17.1.

____TOP OF CAR RAILING
A standard railing shall be provided on the outside perimeter of the car top on all sides where the perpendicular distance between the edges of the car top and the adjacent hoistway enclosure exceeds 12 inches horizontal clearance. ASME A17.1.
Pit access doors shall be provided when pit floor is more than 120 inches and conform to the requirements of ASME A17.1.

____MAINTENANCE CLEARANCE
A clear path and a clearance of not less than 18 inches shall be provided in the directions required for maintenance access per ASME A17.1.

____ELEVATOR RECALL CONTROL AND SUPERVISORY PANEL
In facilities without a building fire alarm system, these smoke detectors shall be connected to a dedicated fire alarm system control unit that shall be designated as "elevator recall control and supervisory panel." The elevator recall control and supervisory panel shall receive input and monitor the smoke detectors within the dedicated fire alarm system. NFPA 72

____CONTROL CIRCUIT FOR SHUNT TRIPS
Control circuits to shut down elevator power shall be monitored for presence of operating voltage. Loss of voltage to the control circuit for the disconnecting means shall cause a supervisory signal to be indicated at the control unit andrequired remote annunciators. NFPA 72 and NFPA 70.

____HOISTWAY ACCESS SWITCH
Hoistway access switches shall be provided and function accordingly pursuant to ASME A17.1.

____DATA PLATE
A data plate shall be attached to the power door operator or crosshead containing minimum closing times. ASME A17.1.

____MACHINE ROOM SOURCE
A separate branch circuit shall supply the machine room or control room/machine space or control space lighting/receptacle(s). NFPA 70
Machine rooms shall be properly lighted so the electrical control devices and machinery are well illuminated. The light switch shall be located in the machine room and shall be placed near the machine room door jamb per ASME A17.1. The required lighting shall not be connected to the load side of a GFCI. NFPA 70
--Operating devices for inspection operation shall be provided on the top of car and labeled accordingly. ASME A17.1

____EMERGENCY EXIT ELEC. CONTACT
All exit covers shall be provided with an electrical device that is positively opened, cannot close accidentally, can be manually reset, and is protected against mechanical damage. ASME A17.1

____TOP CAR LIGHT/RECEPT
Each elevator shall be provided with an electric light and outlet on top of the car. ASME A17.1

____LIGHT SOURCE
A separate branch circuit shall supply the car lights, receptacle(s), auxiliary lighting power source, and ventilation oneach elevator car. NFPA 70

____HEADROOM IN CAR
The minimum clear headroom of 80 inches above the car floor shall be provided. ASME A17.1
Visual displays shall have edges beveled or rounded and shall not project greater than 1.5 inches. ASME A17.1

____IN CAR VENTING
Natural ventilation in the car shall be guarded to prevent straight-through passage. ASME A17.1

____SYMBOLS
Symbols and required wording shall be as specified in. ASME A17.1
An emergency stop switch or in car stop switch where required shall halt the car by removing the electrical power to the driving machine brake. A S M E A17.1

____IN CAR LIGHTS
The minimum illumination shall not be less than 5 foot candles for passengers or 2.5 foot candles for freight and shall not be less than 2 lamps. ASME A17.1

____GUARD LIGHTS
Light bulbs and tubes within the car shall be equipped with guards. ASME A17.1

____EMERGENCY LIGHTS
Each elevator shall be provided with auxiliary lighting of 0.2 foot candles. ASME A17.1.

____ALARM ON AN EMERGENCY STOP SWITCH
When an emergency stop switch is provided an audible signal device shall also be provided. ASME A17.1

____EMERGENCY ALARM
The audible signal device shall function for at least 1 hour after power loss. ASME A17.1

____REOPENING DEVICE
Reopening devices for power-operated car doors and gates shall function accordingly pursuant to ASME A17.1. The force necessary to prevent closing of hoistway door from rest shall not exceed 30 pounds of force. A S M E A17.1
Phase I switch shall be labeled "Fire Recall" with positions marked "Reset," "Off," and "On." A S M E A17.1

____PHASE I ILLUMINATION
All "Fire Recall" switches shall be provided with an illuminated visual signal to indicate when Phase I emergency recall operation is in effect. ASME A17.1
The visual signal shall remain activated until the car is restored to automatic operation. A S M E A17.1

____PHASE II PANEL LAYOUT
All buttons and switches shall be readily accessible, located not more than 72 inches above the floor, and shall be arranged pursuant to ASME A17.1.

____FEED FROM SIGN
The disconnecting means shall be provided with a sign to identify the location of the supply side over current protective device. NFPA 70

____PARTS OF CONTROLLER SIGN
The warning sign for multiple disconnecting means shall be clearly legible and shall read; "Warning parts of the controller are not de-energized by this switch." NFPA 70

____DRIVE SHEAVE DATA TAG
Drive sheaves and drums shall be permanently and legibly marked to state the minimum sheave and drum diameter. ASME A17.1
The brake setting and method of measurement shall be permanently and legibly marked on the drive machine. ASME A17.1

____ASCENDING CAR
Ascending car over speed protection shall be provided and function according to ASME A17.1

____UNINTENTIONAL MOVEMENT
Protection shall be provided with a device to prevent unintended car movement away from the landing and shallfunction according to ASME A17.1

____EMERGENCY BRAKE
When required for protection against ascending car over speed, an emergency brake shall be provided and function according to ASME A17.1

____EMERGENCY BRAKE/ROPE GRIPPER MARKING PLATE
The Emergency Brake/ Rope Gripper shall be provided with a marking plate. ASME A17.1

____CHECKING LIQUID LEVEL
Tanks shall be provided with means for checking liquid level. ASME A17.1 (Dip Stick or magnet)

____PRESSURE SWITCH
When cylinders are installed with the top of the cylinder above the top of the storage tank, a pressure switch shall be provided. ASME A17.1

____LOW OIL PROTECTION
A means shall be provided to render the elevator on normal operation inoperable if for any reason the liquid level inthe tank falls below the permissible minimum. ASME A17.1

____AUXILIARY POWER
Where the auxiliary power supply provided solely for the purpose of lowering the car shall conform according to ASME A17.1

____EMERGENCY POWER/STANDBY
An emergency or standby power system is provided to operate an elevator in the event of normal power failure shall conform to ASME A17.1

____PIT SOURCE
A separate branch circuit shall supply the hoistway pit lighting and receptacle(s). NFPA 70

____SUMP COVER
Sumps and sump pumps in pits where provided shall be covered. The cover shall be secured and level with the pitfloor. ASME A17.1

____BUFFER PLATES
Buffers shall be provided with marking plates. ASME A17.1

____MAX RUNBY SIGN
A data plate shall be provided with a sign reading, "MAXIMUM DESIGN COUNTERWEIGHT RUNBY." ASME A17.1

____PLATFORM GUARD
The entrance of the platform of passenger and freight elevators shall be provided with a smooth metal guard securelybraced. ASME A17.1

____SAFETY BULKHEAD
Clearance shall be provided at the bottom of the cylinder so that the bottom of the plunger will not strike the safety bulkhead of the cylinder when the car is resting on its fully compressed buffer. ASME A17.1
A means shall be provided to collect for removal any oil leakage from the cylinder head seals or packing gland. ASME A17.1

____BURIED CYLINDER
Cylinders buried in ground shall be protected from corrosion due to galvanic or electrolytic action, saltwater, or other underground conditions. ASME A17.1

____HYDRAULIC PIPE IDENTIFICATION
A marking shall be applied to accessible piping that is located outside the elevator machine room or hoistway which reads "Elevator Hydraulic Line." ASME A17.1

____OVER SPEED VALVE
Over speed valve shall be installed, mounted, and sealed according to ASME A17.1

____TELEPHONE MONITORING
For elevators installed after March 15, 2012, the in-car telephone device line must be monitored. ASME A17.1.

____MAINTENANCE CONTROL PROGRAM
Maintenance control programs (MCP) must be made available to elevator personnel for all elevators with permits dated March 15, 2012, and later.

Commonwealth of Kentucky Elevator Inspection Branch

Escalator Inspection Violation Reference List for New and Existing Escalators and Scheduling Checklist

The following list contains the violation narratives for many of the common violations issued by the Commonwealth of Kentucky Elevator Inspection Branch. The Elevator Inspection Branch utilizes the ASME A17.1, Safety Code for Elevators and Escalators, as referenced by the current edition of the Kentucky Building Code for the minimum elevator safety standard.

Prior to obtaining an acceptance or alteration inspection for a new installation or existing unit, the permit holder shall review the job site against this list and note any outstanding violations and why they exist. The permit holder shall review the statement below and submit it to the Elevator Inspection Branch inspector 48 hours prior to scheduling a test time and date.

In addition, see the adopted editions of NFPA 70, National Electrical Code, the Kentucky Building Code for fire rating, and NFPA 13 and NFPA 72 for fire alarm, sprinklers and firefighter emergency operations.

Provide State Certificate ID Number: _____

Please Read Before Signing:

- **The violation reference list must be corrected and emailed to the Elevator Inspection Branch inspector prior to scheduling of test.**
- **Skirt Indexing must be performed and emailed to the Elevator Inspection Branch inspector prior to scheduling test.**

Name of Elevator Company: _____

Phone Number: _____ Fax Number: _____

e-Mail: _____ License: _____

Certified by: Print Name: _____ Signature: _____

Date: _____

Passed: _____ Failed: _____

Additional Notes and Remarks:

_____

_____

_____

____ **- GENERAL FIRE PROTECTION** --The sides and undersides of an escalator truss or group of adjacent trusses in a single wellway shall be enclosed in materials defined as either noncombustible or limited-combustible by the building code or NFPA 101. ASME A17.1

____ **- GEOMETRY** --The width of the escalator shall be the width of the step tread. The handrail shall be a minimum of 4 inches horizontally and 1 inch vertically away from adjacent surfaces. The angle between the surface of the deck and the plane of the nose line of the steps shall be not less than 20 degrees nor more than 30 degrees. ASME A17.1

____ **- HANDRAILS** --Each balustrade shall be provided with a handrail moving in the same direction and at substantially the same speed as the steps. In the case of curved escalators, this shall be substantially the same angular velocity. The speed of the handrail shall not change when a retarding force of 450 Newtons (100 pounds of force) is applied to the handrail opposite to the direction of travel. ASME A17.1

____ **- ENTRANCE AND EGRESS ENDS** --The comb teeth shall be meshed with and set into the slots in the tread surfaces so that the points of the teeth are always below the upper surface of the treads. There shall be a visual contrast between the comb and step, achieved by color, pattern, or texture. The length of the entry and exit zone, measured from the end of the newel, shall be not less than twice the distance between the centerlines of the handrails. ASME A17.1

____ **- LIGHTING** --Landing floor plates and all exposed step treads shall be illuminated with a lighting intensity of not less than 50 lux (5-foot candles). ASME A17.1

____ **- CAUTION SIGNS** --A caution sign shall be located at the top and bottom landing of each escalator, readily visible to the boarding passengers. ASME A17.1

____ **- COMBPLATE AND COMB STEP IMPACT DEVICE** --Devices shall be provided that will cause the opening of the power circuit to the escalator driving-machine motor and brake if either:

(a) a horizontal force not greater than 1 780 Newtons (400 pounds of force) in the direction of travel is applied at either side, or not greater than 3,560 Newtons (800 pounds of force) at the center of the front edge of the comb-plate.

(b) a resultant vertical force not greater than 670 Newtons (150 pounds of force) in the upward direction is applied at the center of the front of the combplate.

These devices shall be of the manual-reset type. ASME A17.1

____ **- ANTISLIDE DEVICES** -- On high deck balustrades, anti-slide devices shall be provided on decks or combinations of decks when the outer edge of the deck is greater than 8 inches from the edge of the handrail, or on adjacent escalators when the unobstructed distance between the edge of the facing handrail is greater than 12 inches. ASME A17.1

____ **- DECK BARRICADES --** A barricade to restrict access to the outer deck on low deck exterior balustrades shall be provided at the top and bottom ends of each escalator where the outer deck width exceeds 5 inches. On parallel abutting units, this protection shall be provided where the combined outer deck width exceeds 5 inches. The barricade shall extend to a height that is nominally 4 inches below the top of the handrail. When an escalator is not located at the edge of a floor surface, the barricade shall be

installed on the outer deck at a point 40 inches above the floor where the bottom of the barricade intersects the outer deck. ASME A17.1

____ **- STEPS** -- There shall be demarcation lines on the step tread along the back of the step to delineate the division between steps. These lines shall be marked by a yellow strip, a minimum of 1.5 inches in width and a maximum of 2 inches. There shall be demarcation lines on the step tread along the sides of the step. These side lines shall be yellow and at least 0.5 inch. wide and shall not exceed 2 inches. Where support wheels attached to the steps are not located within the width of the step, provision shall be made to prevent the step from falling into the escalator interior due to a loss of one or more of the support wheel assemblies. ASME A17.1

____ **- UPTHRUST DEVICE** -- Means shall be provided in the passenger-carrying line of the track system to detect a step forced upward in the lower transition curve at or prior to the point of tangency of the horizontal and curved track. Actuation of the means shall cause power to be removed from the driving-machine motor and brake. ASME A17.1

____ **- OPERATING DEVICES** -- Escalators shall be provided with starting switches conforming to the following: The switches shall be: (1) Located so that the escalator steps are within sight; (2) Key operated, of the continuous-pressure spring-return type; (3) Clearly and permanently marked “DOWN,” “RUN,” and “UP,” in that order, with the key removable only in the “RUN” (spring return) position. The switches shall be rotated clockwise to go from the “DOWN” to “RUN” to “UP” position. The escalator shall not start (restart) unless all starting switches were first in the “RUN” position. The starting switches shall be located within reach of an emergency stop button. ASME A17.1

____ **- E-STOPS** -- A red stop button shall be visibly located at the top and the bottom landings on the right side facing the escalator. The buttons shall be covered with a transparent cover that can be readily lifted or pushed aside. When the cover is moved, an audible warning signal shall be activated. The signal shall have a sound intensity of 80 dBA minimum at the button location. The cover shall be marked “EMERGENCY STOP.” The cover shall be self-resetting. The operation of either of these buttons shall cause the electric power to be removed from the escalator driving-machine motor and brake. ASME A17.1

____ **- SKIRT OBSTRUCTION DEVICE** -- Means shall be provided to cause the electric power to be removed from the escalator driving-machine motor and brake if an object becomes caught between the step and the skirt as the step approaches the upper or lower combplate. The device shall be located at a point at which the step assumes a flat step position. The escalator shall stop before that object reaches the combplate with any load up to full brake rated load with escalator running. ASME A17.1

____ **- EGRESS RESTRICTION (ROLLING SHUTTER) DEVICE** -- Egress restrictors that would prevent the free and continuous exiting of passengers, if used, shall provide a signal to a device on the escalator that shall cause the electric power to be removed from the escalator driving machine motor and brake when the exit restrictor begins to close. ASME A17.1

____ **- TANDEM OPERATION --** 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. The electrical interlocks shall stop the escalator carrying passengers into the common intermediate landing if the escalator carrying passengers away from the landing stops. These escalators shall also be electrically interlocked to assure that they run in the same direction. ASME A17.1

____ **- SPEED** -- The rated speed shall be not more than 100 feet per minimum, measured along the centerline of the steps in the direction of travel. Variation of the escalator speed after start-up shall be permitted provided the escalator installation conforms to all parts of ASME A17.1. An escalator speed-monitoring device shall be provided: (a) The operation of the device shall cause the electric power to be removed from the driving-machine motor and brake should the speed exceed the rated speed by more than 20 percent; (b) The device shall be of the manual-reset type. ASME A17.1.

____ **- BALUSTRADES** --Balustrades shall be installed on each side of the escalator. (See ASME A17.1, Nonmandatory Appendix I, Figure I-3.). Glass or plastic, if used in balustrades, shall conform to the requirements of ANSI Z97.1 or 16 CFR, Part 1201. ASME A17.1

____ **- CEILING INTERSECTION GUARDS --** (a) On high deck balustrades, a solid guard shall be provided in the intersection of the angle of the outside balustrade deck and the ceiling or soffit, under the following conditions: (1) where the clearance between the outside edge of the deck and the ceiling or soffit is 12 inches or less; or (2) where the projected intersection of the outside deck and the ceiling or soffit is 24 inches or less from the centerline of the handrail; (b) On low deck balustrades, a solid guard shall be provided to protect the intersection formed by the top of the handrail and the plain of the ceiling or soffit where the centerline of the handrail is 14 inches or less from the ceiling or soffit; (c) The vertical edge of the guard shall be a minimum of 350 mm (14 inches) in length; (d) The escalator side of the vertical face of the guard shall be flush with the face of the wellway; (e) The exposed edge of the guard shall present a minimum width of 1 inch and a minimum radius of 0.5 inch; (f) Guards are permitted to be of glass or plastic, provided they meet the requirements of ASME A17.1

____ **- STEP/SKIRT CLEARANCES, PANELS, AND PERFORMANCE INDEX** -- The clearance (loaded gap) between the step tread and the adjacent skirt panel shall be not more than 0.2 inch when 25 pounds of force is laterally applied from the step to the adjacent skirt panel. The step/skirt performance index shall pass the test specified in ASME A17.1. This requirement is not applicable to escalators with dynamic skirt panels. ASME A17.1

____ **- OUTDOOR PROTECTION** --- Escalators shall be so constructed that exposure to the weather will not interfere with normal operation. The escalator equipment and its supports shall be protected from corrosion. Electrical equipment shall be provided with a degree of protection of at least Type 4 construction as specified in NEMA 250, and wiring shall be identified for use in wet locations in accordance with NFPA 70. A cover, directly over the horizontal projection of the escalator, shall be provided. When the escalator is subjected to blowing snow or freezing rain, heating systems shall be operated to prevent accumulation of snow or ice on the steps, landings, and skirt deflector devices. Drains suitable for all weather conditions shall be provided to prevent the accumulation of water. ASME A17.1

____ **- EARTHQUAKE INSPECTION AND TESTS** -- Balustrades shall be designed to resist a lateral load of 50 pounds of force per foot applied to the top of the handrail. All members of escalators and moving walk trusses together with their supports shall be capable of withstanding the inertia effect of their masses without permanent deformation when subjected to seismic forces active separately in vertical and horizontal directions. Earthquake protective devices shall be of the failsafe type. A minimum of one seismic switch shall be provided in every building in which an escalator or moving walk is installed. The seismic switch shall conform to Section 8.4.10.1.2(b). Activation of the seismic switch shall remove power from the escalator driving machine motor and brake. ASME A17.1

____ **- MACHINERY SPACE ACCESS, LIGHTING AND RECEPTICLE** -- Landing floor plates and all exposed step treads shall be illuminated with a lighting intensity of not less than 50 lux (5 foot candles). A duplex receptacle rated at not less than 15A, 120 V, accessibly located, shall be provided under the access plates (see Section 6.1.7.3) at the top and bottom landings and in any machine areas. Reasonable access to the interior of the escalator shall be provided for inspection and maintenance. Access plates at the top and bottom landings shall be securely fastened by a mechanical means. Where access is provided to a machinery enclosure, a fixed guard shall be provided to prevent accidental contact with the moving steps by a person servicing equipment from within the enclosure. ASME A17.1

____ **- MACHINE SPACE STOP SWITCHES AND INSPECTION CONTROL** -- A stop switch shall be provided in each machinery space and other spaces where means of access to the interior space is provided except for the machinery space where the mainline disconnect switch is located. Each escalator shall be equipped with inspection controls not accessible to the general public during normal operation to provide constant pressure operation during maintenance, repair, or inspection by means of a manually operated control device. ASME A17.1

____ **- CONTROLLER AND WIRING** -- Up-to-date wiring diagrams detailing circuits of all electrical protective devices and critical operating circuits shall be available in the machinery space. The occurrence of a single ground or the failure of any single magnetically operated switch, contactor, or relay; or the failure of any single solid-state device; or a software system failure, shall not (a) permit the escalator to start and (b) render ineffective any electrical protective device. All electrical equipment and wiring shall conform to NFPA 70. ASME A17.1

____ **- DRIVE MACHINE AND BRAKE** -- The driving machine shall be connected to the main drive shaft by toothed gearing, a mechanical coupling, or a chain. An electric motor shall not drive more than one escalator driving machine. Each escalator driving machine shall be provided with an electrically released and mechanically or magnetically applied brake. The brake shall be capable of stopping the down-running escalator with any load up to the brake rated load. Driving-machine brakes shall stop the down-running escalator steps at an average rate not greater than 3 foot per second squared as measured over the total retardation time. The escalator brake shall be provided with a data plate that is readily visible, located on the machine brake and display the following: (a) for fixed torque brakes, the range of brake torque; or (b) for variable torque brakes, the minimum brake torque for a loaded escalator and the minimum stopping distance for the unloaded escalator. ASME A17.1

____ **- SPEED GOVERNOR** -- The mechanical speed governor, if required, shall be tested by manually operating the trip mechanism. Check the tripping speed for compliance. ASME A17.1

____ **- BROKEN DRIVE CHAIN SAFETY DEVICE** -- If the escalator driving-machine brake is separated from the main drive shaft by a chain used to connect the driving machine to the main drive shaft, a mechanically or magnetically applied brake shall be provided on the main drive shaft. If the brake is magnetically applied, a permanent ceramic magnet shall be used. A device shall be provided that will cause the application of the brake on the main drive shaft and will also cause the electric power to be removed from the driving machine motor and brake if the drive chain between the machine and the main drive shaft becomes disengaged from the sprockets. If the drive motor is attached to a gear reducer by means other than a continuous shaft, mechanical coupling, or toothed gearing, a device shall be provided that will cause the electric power to be removed from the driving machine motor and brake, if the motor becomes disconnected from the gear reducer. These devices shall be of the manual-reset type. ASME A17.1

____ **- REVERSAL STOP SWITCH** -- Means shall be provided to cause the electric power to be removed from the driving-machine motor and brake in case of reversal of travel while the escalator is operating in the ascending direction. The device shall be of the manual-reset type. ASME A17.1

____ **- BROKEN STEP CHAIN DEVICE** -- A broken step-chain device shall be provided, which shall cause the electric power to be removed from the driving-machine motor and brake for the following: (1) if a step chain breaks; (2) where no automatic chain tension device is provided, if excessive sag occurs in either step chain; (b) The device shall be of the manual-reset type. ASME A17.1

____ **- STEP UPTHRUST DEVICE** -- Means shall be provided to detect a step forced upward in the lower transition curve at or prior to the point of tangency of the horizontal and curved track. The means shall actuate when the riser end of the step is displaced upward more than 0.20 inch at the lower landing. Actuation of the means shall cause power to be removed from the driving-machine motor and brake. The escalator shall stop, before the detected step reaches the combplate. ASME A17.1

____ **- MISSING STEP DEVICE** -- A device shall be provided to detect a missing step and bring the escalator to a stop, before the gap resulting from the missing step emerges from the comb. The device shall cause power to be removed from the driving-machine motor and brake. The device shall be of the manual-reset type. ASME A17.1

____ **- STEP LEVEL DEVICE** -- Step level devices shall be located at the top and bottom of the escalator. These devices shall detect downward displacement of 0.125 inch or greater at the riser end at either side of the step. When activated, the device shall cause the escalator to stop before the step enters the combplate. The device shall cause power to be removed from the driving-machine motor and brake. Devices shall be of the manual-reset type. ASME A17.1

____ **- STEP LATERAL DISPLACEMENT DEVICE** -- A device shall be provided on curved escalators to cause the opening of the power circuit to the escalator driving machine motor and brake, should a step be excessively displaced horizontally due to a failure in the lateral support system. The device shall be of the manual reset type. ASME A17.1

____ **- STEPS, STEP CHAINS, AND TRUSSES** -- Where support wheels attached to the steps are not located within the width of the step, provision shall be made to prevent the step from falling into the escalator interior due to a loss of one or more of the support wheel assemblies. Step wheel tracks shall be designed to prevent displacement of the running gear if a step chain breaks. The truss or girder shall be designed to safely sustain the running gear in operation. In the event of failure of the track system, it shall retain the running gear within the confines of this truss. ASME A17.1

____ **- HANDRAIL SYSTEMS AND SAFETY DEVICES** -- Hand or finger guards shall be provided at a point where the handrail enters the balustrade. A handrail entry device shall be provided at each newel. It shall be operative in the newels in which the handrail enters the balustrade. It shall be of the manually reset type and shall cause the escalator to stop by removing power from the driving-machine motor and brake. A handrail speed monitoring device shall be provided that will cause the activation of the alarm required by Section 6.1.6.3.1(b) without any intentional delay, whenever the speed of either handrail deviates from the step speed by 15 percent or more. The device shall also cause electric power to be removed from the driving-machine motor and brake when the speed deviation of 15 percent or more is continuous within a 2 second to 6 second range. The device shall be of the manual-reset type. ASME A17.1

____ **- CODE DATA PLATE** -- An individual data plate shall be provided and maintained for each unit. The data plate shall indicate the Code to be used for inspections and tests. The data plate shall indicate the Code and edition in effect at the time of installation. The data plate shall also indicate the Code in effect at the time of any alteration and indicate the applicable requirements. The data plate shall be in plain view, securely attached to each main line disconnect or controller. ASME A17.1

____ **- RESPONSE TO SMOKE DETECTORS** -- Smoke detectors shall be permitted that shall activate the alarm and, after at least 15 seconds, shall cause the interruption of power to the driving-machine motor and brake. ASME A17.1

____ **- MAINTENANCE CONTROL PROGRAM** -- Maintenance control programs (MCP) must be made available to elevator personnel for all elevators with permits dated March 15, 2012, and later. ASME A17.1

____ - **MANUAL RESET** -- A means, not accessible to the general public, requiring personal intervention by an authorized person prior to restarting the escalator or moving walk. ASME A17.1

- The following requires manual/maintenance reset per ASME A17.1 and ASME A17.2:
  i) Speed Governor/Over Speed Device
  ii) Broken Drive Chain Device
  iii) Broken Step Chain Device
  iv) Missing Step Device
  v) Step Level Device
  vi) Reversal Device
  vii) Handrail Speed Device
  viii) Handrail Entry Device
  ix) Step Lateral Displacement Device
- Escalators installed after A17.1-1990 was adopted ensure the unit will not restart with key switch until manual reset.
- Escalators installed after A17.1b-1995 was adopted ensure the unit will not restart with key switch after cycling power on and off before manual reset.

Commonwealth of Kentucky Elevator Inspection Branch

Private Residence Chairlift Inspection Test Form

Prior to obtaining an inspection, the permit holder shall review the job site against this list to ensure all items are capable of demonstration and submit it to the Elevator Inspection Branch inspector 48 hours prior to scheduling a test time and date.

In addition, see the referenced documents of NFPA 70, National Electrical Code, ASME A18.1, and Platform Lifts and Stairway Chairlifts as referenced in the current edition of the Kentucky Building Code.

Provide State Certificate ID Number: _____

The following is a list of items that will be required to be demonstrated:

- ☐ Check plug/ wiring are secured- GFI, power strip, and extension cord not permitted
- ☐ Unplug unit/return to landing on battery
- ☐ Must have foot platform, seat, and seat belt
- ☐ Foot platform safeties must stop travel
- ☐ Foot platform must be within 6 inches of step nosing/riser
- ☐ Foot platform may not be more than 24 inches above step or landing
- ☐ Raise armrests must stop travel
- ☐ Upper and lower normal terminal stopping device
- ☐ Upper final terminal stopping device (lower not required per Section 7.9.6)
- ☐ Operating controls must be continuous pressure
- ☐ Remotes, if provided, must be checked in both directions with chairs in the folded position
- ☐ Rail obstruction devices must stop travel in both directions
- ☐ Seat rotation switch must stop travel
- ☐ Rail must be properly secured
- ☐ Unit must travel with full load -test loss of power and during travel and in recovery
- ☐ Data plate secured to show speed, rated load etc.
- ☐ Units without a remote must be tested in the folded position in both directions
- ☐ *Friction drive must be capable of 125% of load

Name of Chairlift/ Elevator Company: _____

Phone Number: _____

Email: _____

Virtual Inspection: _____ Site Visit: _____ (Technician must be present)

License: _____Certified By- Print Name_____

Commonwealth of Kentucky Elevator Inspection Branch

Private Residence Inspection Violation Reference List for New Elevators and Scheduling Checklist

The following list contains the violation narratives for many of the common violations issued by the Commonwealth of Kentucky Elevator Inspection Branch. The Elevator Inspection Branch utilizes the ASME A17.1, Safety Code for Elevators and Escalators, as referenced by the current edition of the Kentucky Building Code for the minimum elevator safety standard.

Prior to obtaining an acceptance inspection for a new installation, the permit holder shall review the job site against this list and note any outstanding violations and why they exist. The permit holder shall review the statement below and submit it to the Elevator Inspection Branch inspector 48 hours prior to scheduling a test time and date.

In addition, see NFPA 70, National Electrical Code, as referenced in the Kentucky Residential Code.

Please Read Before Signing:

- **A temporary 90-Day Construction Use permit may be requested to transport construction personnel as well as tools and construction materials which must be permanently fastened or secured to the building infrastructure. A permitted construction use elevator may not be used for any purpose except those performed by the permit holder and must at all times be operated by a trained operator with authorization from the permit holder.**
- **The violation reference list must be corrected and emailed to the elevator inspector prior to rescheduling of test.**

Provide State Certificate ID Number: _____

Name of Elevator Company: _____

Phone Number: _____ Fax Number: _____

e-Mail: _____ License: _____

Certified by: Print Name: _____ Signature: _____

Date: _____Passed: _____ Failed: _____

Additional Notes and Remarks:

_____

_____

_____

____ **- APPLICABILITY** -- This checklist applies to elevators installed in buildings as a means of access to private residences within such buildings, provided the elevators are so installed that they are not accessible to the general public or to other occupants in the building. ASME A17.1

____ **- HOISTWAY** -- The hoistway shall be solidly enclosed throughout its height without grillwork or openings other than for landing or access doors. Enclosures shall be of sufficient strength to support in true alignment the hoistway doors and gates and their locking equipment. ASME A17.1

____ **- TOP OF CAR CLEARANCE** -- The top car clearance shall be not less than 6 inches plus 1 inch for each 3.3 feet per minute of the rated speed in excess of 30 feet per minute. Where the machine or its controls are located on the top of the car, a refuge space on top of the car enclosure shall be provided in conformance with ASME A17.1

____ **- HORIZONAL CAR CLEARANCES** -- There shall be a clearance of not less than 0.75 inch between the car and the hoistway enclosure, and between the car and its counterweight. The clearance between the car platform sill and the landing sill shall be not less than 0.5 inch nor more than 1.25 inch. ASME A17.1

____ **- PROTECTION OF HOISTWAY OPENINGS** -- Landing openings shall be protected by swinging or horizontally sliding doors or gates. Landing openings shall be protected the full height by solid swinging or horizontally sliding doors. The doors or gates shall be designed to withstand a force of 670 Newtons (150 pounds of force) applied horizontally over an area 4 inches by 4 inches in the center of the doors or gates without permanent displacement or deformation. ASME A17.1

____ **- CLEARANCE BETWEEN HOISTWAY DOORS AND LANDING SILLS AND CAR DOOR/GATE** -- The clearance between the hoistway doors and the hoistway edge of the landing sill shall not exceed 3 inches. The distance between the hoistway face of the landing door or gate and the car door or gate shall not exceed 5 inches. ASME A17.1 (NAESA recommends the new standard of 0.75 inch and 4 inches be used, although the state has yet to adopt this requirement found in current versions of elevator code)

____ **- HOISTWAY DOOR LOCKING DEVICES** -- Hoistway doors shall be provided with locking devices. The locking device shall be of a type that will (a) either prevent car movement unless the door is locked in the closed position; or (b) permit the car to start if the door or gate is in the closed position but not locked, provided that the device stops the car if the door or gate fails to lock before the car has moved 6 inches away from the landing. The device shall also prevent the opening of the hoistway door or gate unless the car is within 6 inches of the landing. The locking device shall conform to ASME A17.1.

____ **- CAR ENCLOSURE** -- Cars shall be enclosed on all sides and on the top. The enclosure shall be constructed of solid or of openwork material that will reject a ball 0.5 inch in diameter. Glass, plastic, or acrylics, where used in elevator cars, shall conform to the following: (1) if of glass, it shall meet the requirements of 2.14.1.8 (2) of ASME A17.1 if of plastic or acrylic, it shall meet the requirements of ANSI Z97.1 or 16 CFR Part 1201, whichever is applicable. ASME A17.1

____ **- CAR DOORS AND GATES --** A car door or gate shall guard the opening to a height of at least 66 inches and shall be provided at each entrance to the car. Car doors shall be permitted to be of solid or openwork construction that will reject a ball 3 inches in diameter. Collapsible car gates shall be of a design that, when fully closed, will reject a ball 3 inches in diameter. Power operated doors shall be permitted for car doors and gates and shall conform to 2.13.2.1 and 2.13.6 of ASME A17.1. Where the hoistway enclosure is not continuous for the full travel of the car, the car door or gate shall be provided with a

mechanical lock that will lock the car door or gate if the car is more than 6 inches away from a landing. Every car door or gate shall be provided with an electric contact. The car door or gate electric contacts shall prevent car movement unless the door or gate is within 2 inches of the closed position. If the door or gate swings outward to open, the car door or gate must be closed and locked before the car can move. ASME A17.1

____ **- CAR LIGHT** – The minimum illumination at the car threshold, with the door closed, shall be not less than 50 lux (5 foot candles). ASME A17.1

____ **- CAPACITY** -- The maximum inside net platform area shall not exceed 15 square feet. The minimum rated load shall be not less than the following: (a) For net platform areas up to and including 12 square feet , the rated load shall be not less than 40 pounds per square foot or 350 pounds, whichever is greater; (b) For net platform areas greater than 12 square feet, the rated load shall be based upon 62.5 pounds per square foot. ASME A17.1

____ **- SPEED** -- The rated speed shall not exceed 40 feet per minute. ASME A17.1

____ **- RISE** -- The rise shall not exceed 50 feet. ASME A17.1

____ **- CAR SAFETIES** -- Each elevator shall be provided with a car safety. The car safety shall be of the inertia, or other type operated by the breakage of the suspension means or by the action of a speed governor. If it is of the speed governor type, the governor shall operate the safety at a maximum tripping speed of 75 feet per minute. On the breakage of the suspension means, the safety shall operate without delay and independently of the speed governor action. Where a speed governor is used, the motor circuit and the brake circuit shall be opened before or at the time that the safety applies. ASME A17.1

____ **- BUFFERS** -- The car and counterweight shall be provided with spring buffers. Buffers may be omitted when striking speed is 0.25 meters per second (50 feet per minute) or less if the space below the car and counterweight consists of a non-occupiable area and floor has sufficient strength to withstand impact of car or counterweight. Car and counterweight buffers shall be of sufficient strength to withstand without failure the impact resulting from buffer engagement at 125 percent of the rated speed, or at governor tripping speed where a governor-operated safety is used. ASME A17.1

____ **- DRIVING MACHINES --** Types of Driving Means. The driving means shall be one of the following types: (1) traction; (2) winding drum (see Section 5.3.1.16.3); (3) direct plunger hydraulic (see Section 5.3.2); (4) roped-hydraulic (see Section 5.3.2); (5) screw machine (see Section 5.3.1.16.4); (6) chain drive; (7) chain-hydraulic (see Section 5.3.2); (8) rack-and-pinion. ASME A17.1

____ **- TERMINAL STOPPING DEVICES** -- Upper and lower normal terminal stopping devices operated by the car shall be provided and stop the car at or near landings. Upper and lower final terminal stopping devices operated by the car to remove power from the motor and the brake shall be provided. ASME A17.1

____ **- ELECTRICAL EQUIPMENT AND WIRING** -- All electrical equipment and wiring shall conform to NFPA 70, National Electrical Code. ASME A17.1

____ **- DISCONNECTING MEANS –** Where the controller is located on the car, the disconnecting means shall be located adjacent to the controller. Auxiliary disconnect means shall be provided at the main

landing when the main power supply disconnect means is mounted adjacent to the controller on the car. ASME A17.1

____ **- EMERGENCY STOP SWITCH** -- An emergency stop switch shall be provided in every car. ASME A17.1

____ **- SLACK ROPE/CHAIN DEVICE** --- Winding drum machines with rope suspension shall be provided with a slack-rope device of the manually reset type. Elevators with roller-chain suspension shall be provided with a slack-chain device. This device need not be of the manually reset type if the chain sprockets are guarded to prevent the chain from becoming disengaged from the sprockets. ASME A17.1

____ **- PHONE** -- A telephone connected to a central telephone exchange shall be installed in the car and an emergency signaling device operable from inside the car and audible outside the hoistway shall be provided. ASME A17.1

____ **- CAPACITY PLATE** -- A capacity plate indicating the rated load of the elevator in pounds shall be furnished by the manufacturer and fastened in a conspicuous place inside the car. The letters and figures on such plates shall be not less than 0.25 inch in height. ASME A17.1

____ **- DATA PLATE** -- A data plate indicating the weight of the elevator, the rated speed, the suspension means, the manufacturer's name, and the date of installation shall be furnished by the manufacturer. This plate shall be installed in a conspicuous place in the machinery area. The letters and figures on such plates shall be not less than 0.25 inch in height. ASME A17.1

____ **- HYDRAULIC ELEVATOR** -- Direct-plunger, roped-hydraulic, and chain-hydraulic private residence elevator driving machines, sheaves, valves, supply piping, fittings, and tanks shall conform to ASME A17.1.

____ **- SAFETY BULKHEAD** -- Clearance shall be provided at the bottom of the cylinder that the bottom of the plunger will not strike the safety bulkhead of the cylinder when the car is resting on its fully compressed buffer. ASME A17.1

____ **- COLLECTION OF OIL LEAKAGE** -- Means shall be provided to collect for removal any oil leakage from the cylinder head seals or packing gland. ASME A17.1

____ **- BURIED CYLINDER** -- Cylinders buried in ground shall be protected from corrosion due to galvanic or electrolytic action, saltwater or other underground conditions. ASME A17.1

____ **- OVERSPEED VALVE** – Overspeed valve shall be installed and mounted and sealed. ASME A17.1

____ **- FLEXIBLE HOSE** – Both (1) Flexible hose and fitting assemblies and (2) flexible couplings shall be permitted to be used for hydraulic connections. ASME A17.1

____ **- SHUT-OFF VALVE** -- A manually operated shut-off valve shall be provided between the hydraulic machines and the hydraulic jack and shall be located outside the hoistway. ASME A17.1

____ **- PUMP RELIEF VALVE** -- Pump relief valves shall be sealed after being set to the correct pressure. ASME A17.1

____ **- HYDRAULIC TANK** -- Full-load working pressures for hydraulic elevators shall be permanently posted. Means to check liquid level shall be provided. ASME A17.1

____ **- PRESSURE SWITCH** -- A pressure switch shall be provided to remove power from the pump motor and the control valve unless there is positive pressure at the control valve. ASME A17.1

____ **- TERMINAL STOPPING DEVICES** -- Direct-plunger, roped-hydraulic, and chain-hydraulic private residence elevator terminal stopping devices shall conform to ASME A17.1.

____ **- ANTICREEP LEVELING DEVICES** -- Each elevator shall be provided with an anti-creep leveling device. The following devices shall prevent operation of the elevator by the normal operating device and the movement of the car in response to the anti-creep leveling device: (a) low pressure switch; (b) slack-rope switch; (c) platform switch; (d) hatch cover switch; (e) speed governor switch. The following devices shall prevent the operation of the elevator by the normal operating device, but the anti-creep leveling device shall remain operable: (a) hoistway door locking device; (b) car door or gate electric contacts; (c) emergency stop switch. ASME A17.1

____ **- MAINTENANCE** -- The maintenance of private residence elevators shall conform to ASME A17.1.