

INSTALLATION AND DESIGN CHECKLIST FOR ELEVATORS IN THE STATE OF IOWA

This list is provided to you in an effort to reduce the problems that might prevent issuing an operating permit at the time of final inspection. Requirements are set forth in Iowa Code Chapter 89A and rules adopted pursuant to the authority of that chapter. This is a general list of frequent problems and is not a substitute for the applicable codes. Use of this checklist should reduce problems but is no guarantee that violations won't exist.

The following items shall be completed and tested by the general contractor, trade subcontractors, fire protection contractors, or elevator contractors prior to final inspection by state. If a re-inspection is necessary, the cost will be \$200. If you have any questions on elevator safety code items, please call 515-281-5415.

Accessibility requirements for elevators are enforced by the Department of Public Safety and local jurisdictions. For more information on accessibility, call 515-725-6154 or visit <http://www.dps.state.ia.us/fm/building/index.shtml>.

ELEVATOR HOISTWAYS AND PITS

1. All ceilings and interior walls, including walls around entrances, must be completely sealed to meet fire rating of structure.
2. Hoistway venting shall comply with local regulations where elevator is installed. In the absence of local regulation, the International Building Code (IBC) will be in effect. IBC states that all elevators that penetrate 3 stories or more require hoistway venting. Vent shall be 3.5 percent of hoistway space or a minimum of 3 square feet.
3. Sprinklers located within 24" of pit floor are not required to disconnect main power supply. All other sprinklers are required to automatically disconnect main power. Heat ~~and smoke~~ detectors must be within 24" of sprinkler. Sprinklers shall not supply more than one floor level.
4. If sprinklers are installed anywhere in hoistway, all electrical equipment less than 48" above pit floor shall be NEMA 4 and only wiring suitable for use in wet locations shall be installed.
5. Smoke detectors shall not be installed in hoistways without sprinklers. If sprinklers are installed, then smoke detectors will be provided and wired to recall elevator to the designated landing.
6. Provide a drain or sump in pit. Drainage shall comply with plumbing and building codes and shall not be directly connected to plumbing system. If a sump pump is utilized, it must be covered and flush with pit floor. A single receptacle must be provided for a sump pump.
7. Provide a pit ladder within reach of access door, not less than 48" above sill. Ladder shall consist of 16" wide rungs spaced 12" apart and 7" from center of rung to pit wall.
8. Provide a guarded light in the pit with minimum of 10-foot candle at floor level. Light switch shall be accessible from pit access door.
9. Provide 120-volt, 20-amp GFI receptacle in pit. A separate branch circuit shall be provided for pit light and receptacle.
10. Finish floor material at each landing entrance so there is no tripping hazard. Entrance sills must be grouted or otherwise provided with means to support the loads imposed.
11. All conduit, piping or duct located in the hoistway must be directly related to elevator operation.
12. All horizontal surfaces greater than 4 inches shall be beveled to 75 degrees.
13. Documentation of welding procedures and proof of welder's certification will be reviewed on site by the inspector.

ELEVATOR MACHINE ROOM

1. Machine room doors must be self-closing and self-locking. Doors must have same fire rating as structure with fire label attached.
2. Machine room walls must have the same fire rating as hoistway and structure.
3. Provide a permanent means of access to machine room spaces.
4. A dedicated communication line to elevator controller must be wired in conduit and made operative prior to inspection.
5. Provide ABC fire extinguisher mounted on wall in the machine room.
6. Provide permanent lighting in rooms. Lighting shall not be less than 19-foot candle at floor level. Switch shall be located on the lock-jam side of door.
7. Provide 125-volt, 20-amp GFI in machine room. A separate branch circuit for room lighting and receptacle shall be provided
8. Each car light circuit must be provided with a separate branch circuit and a separate fused disconnect or circuit breaker capable of being locked in the open position. The disconnect shall be located in the machine room and provided with proper clearances. Disconnect shall be labeled identifying locations of power supply and the elevator it serves if more than 1 elevator.
9. Each elevator must be provided with a separate fused disconnect or circuit breaker capable of being locked in the open position. The disconnect shall be located in the machine room and provided with proper clearances. Disconnect shall be labeled identifying locations of power supply and the elevator it serves if more than 1 elevator.
10. Machine rooms shall be provided with natural or mechanical means to keep temperature and humidity within ranges specified by manufacturer.
11. Sprinklers located in machine room are required to automatically disconnect the main power to the elevator controls prior to application of water. Heat detectors shall be located within 24 inches of each sprinkler.
12. Smoke detectors in the elevator machine room shall recall the elevator to the designated landing. If the elevator machine room is at the designated landing then the elevator shall be recalled to an alternate landing.
13. Fire recall, smoke detectors, and heat detectors shall be tested prior to elevator inspection.
14. No conduits, pipes or other equipment not directly related to the elevator allowed in elevator machine room.
15. All elevator equipment including governors, safeties and valves shall be tested and adjusted prior to final inspection.

ELEVATOR LOBBIES AND CARS

1. Provide finished car flooring. Flooring shall be substantially flush with doorsill.
2. Lobby finish flooring must be substantially flush with hoistway landing sill.
3. Provide permanent hall lighting at each landing entrance. Lighting shall not be less than 10-foot candles at sill with doors in closed position.
4. Provide a lobby smoke detector at each elevator landing/entrance if required by NFPA 72. Lobby detectors shall be mounted on the ceiling within 21 feet of elevator landing/entrance.
5. Provide an elevator corridor call station pictograph at each corridor call station (usually provided by elevator company).