

ARTICLE 5.

SAFETY STANDARDS FOR ELEVATOR FACILITIES

71-5000. Purpose and Definitions.

1. Chapter 16 of Title 41, South Carolina Code of Laws, 1976 (as amended) provides that the Commissioner of Labor promulgate regulations governing maintenance, construction, alteration, and installation of elevator facilities and the inspection and testing of new and existing elevator installations so as to provide for the public safety and protect the public welfare. It is the purpose of these regulations to set minimum acceptable safety standards for the construction, alteration, maintenance, inspection, testing and operation of elevator facilities in South Carolina.

2. All definitions found in Section 41-16-20 apply to these regulations.

A. "Serious injury" means an injury that results in death or which requires immediate in-patient hospitalization. Fractures and disfigurements are considered serious injuries, even where no hospitalization is required.

B. "Imminent danger" means a condition which exists due to a design, mechanical, structural or electrical defect which presents an excessive risk of serious injury to passengers, operators, or the general public.

71-5100. Safety Standards for New Installations.

(Statutory Authority: 1976 Code Sections 41-16-10 et seq.)

1. All facilities installed after July 1, 1986, shall comply with the officially adopted editions of the ASME A17.1 Elevator Code and all supplements thereto, at the time the permit is issued. In the alternative, manlifts may comply with the 1992 editions of the ANSI A90.1 Safety Standards for Manlifts and all supplements thereto. In the alternative platform and stairway chairlifts may comply with ANSI A18.1 and all supplements thereto. Compliance with any later edition of the required safety codes shall be accepted by the director as compliance with the section.

2. All new facilities shall be free from recognized hazards or defects which may cause serious injury.

3. All safety devices provided by the manufacturer and installed on any new installation shall be maintained so as to operate properly per manufacturer's specifications or be replaced with equivalent equipment.

4. Miscellaneous Safety Requirements for New Installations:

A. A 17.1 , Rule 100.7 is repealed. Substitute Rule 5100-4 A to read in its entirety- Hoistway doors shall have floor numbers, not less than four inches in height, located on the hoistway side of the door within the area allowable for opening by the door restrictor.

B. Electrolysis protection for underground hydraulic elevator cylinders. All newly installed underground hydraulic pressure cylinders shall be encased in an outer plastic containment to minimize electrolytic corrosion.

(1) The plastic casing shall be capped at the bottom and all joints must be solvent or heat welded to insure water tightness.

(2) The plastic casing shall be constructed of polyethylene or polyvinyl chloride (PVC). The plastic pipe wall thickness must not be less than .125 inches (3.551mm).

(3) Replacements of existing hydraulic cylinders shall be protected by the aforementioned method where existing physical dimensions permit.

C. The key switches required to operate firefighters' service on Phase I and II shall use a five pin key, S.C. #1000.

D. A17.1, Rule 106.1(b)(3) is repealed. Sump pumps or drains are not required in elevator pits by these regulations. Where indicated by design consideration, sump pumps or drains shall comply with ANSI A17.1, Rule 106.1(b)(3).

71-5200. Safety Standards for Existing Facilities.

1. All facilities for which construction or relocation was begun or which were in operation prior to July 1, 1986, in South Carolina shall comply with the requirements of the 1986 edition of the ANSI A17.3, the American National Standard Safety Code for Existing Elevators and Escalators. In the alternative, manlifts may comply with the 1985 edition of the ANSI A90.1 Safety Standards for Manlifts and all supplements thereto; existing power sidewalk elevators may comply with A17.1, 1987 edition, part IV; existing hand and power dumbwaiters may comply with A17.1, 1987 edition, part VII; existing special purpose personnel elevators may comply with A17.1, 1987 edition, part XV; and existing inclined stairway chairlifts and vertical wheel chair lifts may comply with A17.1, 1987 edition, part XX or part V, provided the lift is key operated and a sign is installed stating "for handicap use only". Compliance with the requirements of any later edition of the required safety codes shall be accepted by the Commissioner as compliance with this section.

2. All existing facilities shall be free from recognized hazards or defects which may cause serious injury.

3. All safety devices provided by the manufacturer and installed on any existing facility shall be maintained so as to operate properly per manufacturer's specifications, or replaced with equivalent equipment.

4. Miscellaneous Safety Requirements for Existing Facilities.

A. All sumps in pits shall be covered. The cover shall be level with the pit floor.

B. Except where compensating chains or ropes are attached to the counterweight, all counterweights shall be provided with a guard of sufficient size and strength to prevent accidental contact with the counterweight while working in the pit. Where existing clearance does not permit a guard, a warning chain attached to the counterweight would meet this requirement.

C. A permanent lighting fixture shall be provided in all pits, which shall provide an illumination of not less than five (5) footcandles (54 lux) at the pit floor. A light switch shall be located so as to be accessible from the pit access door.

D. Each elevator shall be equipped with switches to interrupt electric power to the elevator driving machine motor and brake. The switches shall be conspicuously marked "Stop" and "Run".

(1) A switch shall be located so as to be accessible from the entry into the pit. If the pit is deeper than seven (7') feet there shall be an additional stop switch which is accessible from the pit floor.

(2) A switch shall be located so as to be accessible from the door to all auxiliary machinery spaces.

E. Escalators shall be equipped with a stop switch located so as to be accessible from the point of access into the machinery space. When opened, this switch shall cause the electric power to be removed from the escalator driving machine motor and brake. The switch shall be conspicuously and permanently marked "Stop" and "Run". No additional stop switch is required when the main disconnect switch is in the machinery space.

F. All ladders in pits shall be mounted adjacent to the side of the door where the unlocking device is located unless clearances prevent this.

G. All light fixtures shall be guarded and maintained in a fully operational condition.

H. Counterweight runby shall not be less than the setting of the top final limit plus two (2) inches,

I. Emergency signaling devices for facilities in unattended buildings shall have a minimum sound rating of 80 db measured ten (10) feet from the device.

J. Deleted.

K. Car gates, when fully closed, shall extend from the car floor to a height of not less than six (6) feet, where existing overhead clearances permit.

L. All passenger elevators shall be equipped with a standby power source capable of operating emergency lighting and the alarm bell for a period of at least four (4) hours in the event the normal power source fails. No less than two (2) lamps shall be used for emergency lighting.

M. A17.3, Rule 3.11.3 is repealed. Substitute Rule 5200 4 M to read in its entirety:

(1) All automatic (non-designated attendant) operation elevators having a travel of fifty-four (54) feet from the lowest point of entry to the building shall conform to the requirements of ANSI/ASME A17.1, 1987 edition, Rules 211.3 through 211.8.

(2) All elevators having car switch operation or constant pressure operation or manual door opening and closing or nuclear facilities employing high radiation are not required to install Firemans Service.

(3) All existing installations shall have a conspicuous sign installed at each landing immediately adjacent to the push button station to inform the public that in a fire emergency they should not use the elevator but should use the exit stairs.

N. A17.3, Rule 2.7.4 is repealed. Substitute Rule 5200 4 N to read in its entirety: All passenger elevators installed within dormitories, apartment building, motels, hotels, and schools shall comply with the following:

(1) When a car is outside the unlocking zone, the hoistway doors or car doors shall be so arranged that the hoistway doors or car doors cannot be opened more than four (4) inches (102mm) from inside the car.

(2) When the car doors are so arranged that they cannot be opened when the car is outside the unlocking zone, the car doors shall be able to open from outside the car without the use of special tools.

(3) The unlocking zone shall extend from the landing floor level to a point no greater than eighteen (18) inches (457mm) above or below the landing floor level.

O. The owner of an existing facility whose car enclosure is being altered with materials or design different from the original must obtain an alteration permit from the department. At the completion of the alteration, an appropriate test for rated speed and rated load must be performed.

P. All existing passenger elevators equipped with door restrictors shall be provided with floor numbers conforming to the requirements of 71-5100-4-B.

Q. The owner of every facility shall have available on the premises any keys needed for access to machinery spaces and operation of the facility.

71-5300. Permits and Certificate Required.

1. Construction Permits:

A person, firm or corporation shall not erect, construct, alter or install after July 1, 1986, any facility without first obtaining from the Commissioner a construction permit for such work.

2. Registration and Operating Certificate:

A person, firm, or corporation shall not operate any facility serving any building or structure without a certificate of registration and an operating certificate issued by the Commissioner of Labor. All operating certificates shall be valid for a period of one (1) year from the date of issuance, except that the Commissioner may extend that time where no inspector is available.

71-5310. Application for Construction Permit, Elevator Registration, and Operating Certificate.

1. Each application for a construction permit for new installation, alteration, or relocation shall be made on a form provided by the Commissioner and shall include three (3) copies of:

A. Detailed plans including:

(1) Sectional plan of car and hoistway;

(2) Sectional plan of machine room;

(3) Sectional elevation of hoistway and machine room, including the pit, bottom and top clearance of car, and counterweight;

(4) Size and weight of guide rails, and guide rail bracket spacing.

B. Name and address of the person who designed the installation for which plans are submitted; and

C. Statement of Contract Price.

2. Each application for a facility registration shall be made on a form provided by the Commissioner and shall include the following for each facility:

A. Name and address of the owner;

B. Location;

C. Manufacturer;

- D. Model or Type;
- E. Contract load and speed;
- F. Purpose or use;
- G. Date of installation; and
- H. Number of floors.

3. If an owner of a registered facility desires the Department to perform the annual inspection necessary to obtain an operating certificate, no further application for inspection by the Department to obtain an operating certificate is necessary.

4. If an owner desires a special inspector to perform the annual inspection necessary to obtain an operating certificate, the owner shall notify the Department of his intention in writing no less than ninety (90) days prior to the expiration date of the existing operating certificate. The notification must contain the following information:

- A. Date;
- B. Elevator number and location;
- C. Date of Last inspection;
- D. Special inspector name and I.D. number;
- E. Owner name;
- F. Name, signature and title of the individual requesting the special inspector.

Upon request, the Department will provide a form for the owner to submit the above information. This form will be provided free of charge.

After the initial request for use of a special inspector has been made, the licensed special inspector may, in the alternative to further individual annual requests for special inspection, file during the month of January a list of all facilities for which he has inspection contracts for the calendar year. This list shall include:

- A. Elevator number and location;
- B. Owner's name and name and title of individual contracting with special inspector;
- C. Date of last inspection.

In the event a special inspector's contract is cancelled by the owner, the special inspector shall notify the department, in writing, within 30 days. A report of an inspection made not more than thirty (30) days prior to the expiration date of the existing operating certificate must be filed with the Department. The inspection report must be on a form provided by the Department and be received by the Department no later than the expiration date of the existing operating certificate. Where the owner fails to submit a timely notice of inspection by a special inspector or report of inspection, the Department will inspect according to 71-5310 Section 3, whether the request for special inspection was made under paragraph 1 or 2 above.

71-5400. Qualification of Special Inspectors.

1. Any applicant for a license as a special inspector shall present evidence of all qualifications as stated in the 1984 edition of QEI-1, The American National Standard for Qualification of Elevator Inspectors, and supplements thereto as adopted by the American National Standards Institute. Submission of a copy of a valid Inspector's Certificate issued by any authority accredited by the American Society of Mechanical Engineers shall be evidence that the applicant has all required qualifications.

2. Each applicant for approval as a special inspector shall submit with his annual application evidence of insurance against errors and omissions (or approved general liability insurance) covering inspections of elevators in an amount of no less than \$500,000 per occurrence, procured from one or more insurers licensed to transact insurance in South Carolina or approved as a non-admitted surplus lines carrier for risks located in this State. Each policy, by its original terms or an endorsement, shall obligate the insurer that it will not cancel, suspend, or nonrenew the policy without thirty (30) days written notice of the proposed cancellation, suspension, or nonrenewal and a complete report of the reasons for the cancellation, suspension, or nonrenewal being given to the Commissioner. In the event the liability insurance is cancelled, suspended or nonrenewed, the insurer shall give immediate notice to the Commissioner.

3. No special inspector shall use or disclose information gained in the course of or by reason of his official position for any purpose other than making official inspections. Any special inspector who receives compensation to influence his inspections may have his license revoked.

4. Special inspectors shall conduct all follow-up, safety related complaints, and abatement inspections as called for by the division and shall be responsible for submitting all associated paperwork.

71-5500. Inspections.

1. All components, devices, and equipment, structures and other related items for facilities shall be inspected upon initial installation or registration, or at the time of alteration or repair prior to issuing an operating certificate and a minimum of one (1) time per year thereafter, prior to renewing an operating certificate.

Exceptions:

a) All nuclear facilities employing high radiation shall be inspected at least once every two (2) years or before use by workers during routine plant shutdown. Such inspections may be scheduled to coincide with routine plant shutdown.

b) Handicap lifts, dumbwaiters, and television station towers shall be inspected every two (2) years.

2. Nothing in this section shall be construed to prevent inspections by the State Engineer, the State Fire Marshal, a representative of the South Carolina Board for Barrier Free Design and/or Local Building Officials, within their respective jurisdictions of the facilities, equipment, components, shafts, lobbies and equipment rooms for compliance with any approved codes or standards not part of these rules and regulations.

3. An operating certificate shall be displayed in a conspicuous location within each elevator car, or on a permanent object adjacent to all other types of facilities. In the alternative, a facsimile copy of the original operating certificate may be posted within each elevator car or on a permanent object adjacent to all other types of facilities.

4. Expiration dates within a building may be standardized by pro-rating inspection dates and fees.

5. An owner who desires to operate a new elevator facility on a temporary basis pending completion of a project may apply for a temporary operating certificate. A temporary operating certificate, good for sixty (60) days, will be granted where:

A. the facility is not available for public use;

B. the facility is operated by a qualified operator;

C. the facility complies with all requirements of the ANSI A17.1 and SBC and NEC except:

(1) Smoke detectors

(2) Fire Service

(3) Finished floor in car

(4) Photo eyes

(5) Telephone

(6) Shunt trip disconnect for sprinklers

71-5550. Accidents and Dangerous Facilities.

1. When an accident occurs involving a covered facility and an employee(s) of the owner or lessee, the owner or lessee shall report the accident according to the applicable Occupational Safety and Health regulations, South Carolina Rules and Regulations, Chapter 71, Article 1, Subarticle 3. The owner or lessee of any facility which, during the course of its operation, is involved in an accident which results in a serious injury to any person other than an employee shall report the injury to the Commissioner before the end of the next working day.

The report will include the names and addresses of the injured parties, the hospital where treatment was rendered, type of injuries, type of device involved owner, and any other information pertaining to the events leading up to the nature of and the outcome of the accident, as well as the status of the device involved in the accident.

2. If the inspector finds that a facility presents an imminent danger, he will notify in writing the facility operator, owner or lessee. If the facility is not immediately removed from service, the inspector will file a report of the imminent danger with the Commissioner of Labor. A temporary or permanent restraining order will be sought where appropriate.

71-5600. Fee Schedules

1. Construction permit:

A. The fee for a construction permit shall include the fee for registration and the first annual operating certificate of a facility.

Contract Price/Per Facility	Fee
\$ 1-- \$ 10,000	\$200.00
\$ 10,001--\$ 30,000	\$245.00
\$ 30,001--\$ 50,000	\$295.00
\$ 50,001--\$ 80,000	\$340.00
\$ 80,001--\$100,000	\$360.00
\$100,001--\$200,000	\$410.00
\$200,001-- up	\$460.00

B. Fees under 71-5600 include one turn-over inspection. Any return turn-over inspection, for failing to comply will be charged at a rate of \$75.00 per hour including travel time.

C. A fee of \$250.00 will be charged upon issuance of a temporary certificate, good for a period of no more than sixty (60) days. At the end of sixty (60) days the owner may a) apply for a renewal of a temporary certificate with a fee of \$250.00; b) have the elevator ready for a complete turnover inspection; or c) remove the elevator from service.

2. Operating Certificate:

A. The fee for an annual operating certificate, after registration, whether initial or renewal, with inspection by the South Carolina Department of Labor shall be as follows:

<u>Number of Floors</u>	<u>Fee</u>
2 to 5	\$125.00
6 to 12	\$150.00
13 and above	\$175.00
Handicap Lifts	\$ 75.00
Dumbwaiters	\$100.00
Manlifts	\$200.00
TV Towers	\$300.00

B. The fee for an annual operating certificate, after registration, whether initial or renewal, upon report of a special inspector shall be \$35.00 per facility.

C. The fee for a reinspection due to failure to make timely corrections of all deficiencies noted in an annual inspection report will be \$75.00 per hour of inspection time, including travel time.

3. License for Special Inspector:

The fee for an annual license as a special inspector shall be \$200.00.

71-5700. Procedure for Hearing Contested Citations and Assessments of Penalty.

1. Any owner aggrieved by any action taken pursuant to these rules may file a Notice of Protest within thirty (30) days of the date of the action protested.

2. Notice of Hearing.

A. Service: Upon receipt of a Notice of Protest by any owner of any facility, the Commissioner shall serve notice of the time, place, and nature of a hearing to be held to determine the issues.

B. Contests: The Notice of Hearing shall include:

(1) Time, place, and nature of the hearing. The time shall be at least thirty (30) days from the service of Notice of Hearing unless the owner shall ask in writing for a shorter time;

(2) A short statement of the issues involved; and

(3) Designation of the representative of the Commissioner who shall conduct the hearing as Hearing Examiner.

3. Hearing Procedures.

A.(1) The Hearing Examiner will explain briefly the purpose and nature of the hearing, will ascertain who will present the case for each of the parties, and will hear all preliminary matters.

(2) All persons who give testimony shall be sworn.

(3) A party shall be entitled to present all relevant facts by oral or documentary evidence or by affidavit if the parties so agree.

(4) Opposing parties shall have the right to cross-examine any witness whose testimony is introduced.

(5) In all proceedings commenced by the filing of a Notice of Protest, the burden of proof shall rest with the Department of Labor.

(6) A business entity which owns a facility may be represented at any hearing by an attorney licensed to practice in South Carolina, or by an officer or employee of the entity. Where the owner contracts with a property manager whose regular duties include management of the licensed facility, an officer or employee of the property manager may represent the owner.

B. Within a reasonable time after the Hearing Examiner has heard all evidence and considered any written briefs or memoranda submitted, he shall make a written recommendation to the Commissioner. The Commissioner shall then make his final disposition of the proceedings and shall serve it upon all parties.

C. The Commissioner of Labor shall maintain a record of the proceedings which shall include testimony and exhibits

71-5800. Procedure for Application for Variance.

1. Any owner of any facility may apply to the Commissioner of Labor for a variance, either temporary or permanent, from any rule or regulation under this article.
2. Such variance shall be granted at the discretion of the Commissioner if the owner establishes by sufficient evidence that:
 - A. He is unable to comply with a rule or regulation because of unavailability of professional or technical personnel or data or of materials, design or equipment needed to come into compliance with the rule or regulation; and
 - B. He is taking alternative steps to safeguard against the hazard covered by the rule or regulation.
3. A variance application shall include:
 - A. The name and address of the petitioner;
 - B. Identifying information concerning the facility for which the variance is sought;
 - C. A specification of the standard or portion thereof from which the petitioner seeks a variance;
 - D. A representation by the petitioner, supported by statements from qualified persons having first-hand knowledge of the facts represented, that he is unable to comply with the standards or portion thereof and detailed statement of the reasons thereof;
 - E. A statement of the steps the petitioner has taken or will take, with specific dates where appropriate, to protect against the hazard addressed by the standard; and,
 - F. Where a temporary variance is sought, a statement of the time required to achieve compliance with the standard, not to exceed two (2) years.

71-5900. Effective Date.

The effective date of these regulations shall be July 1, 1986.