**The Florida Senate**

# PROFESSIONAL STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: Regulated Industries Committee

| | |
|---|---|
| BILL: | CS/SB 806 |
| INTRODUCER: | Regulated Industries Committee and Senator Jones |
| SUBJECT: | Elevator Safety |
| DATE: | April 23, 2007 |
| REVISED: | |

| | ANALYST | STAFF DIRECTOR | REFERENCE | ACTION |
|---|---|---|---|---|
| 1. | Oxamendi | Imhof | RI | **Fav/CS** |
| 2. | | | GA | |
| 3. | | | RC | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |

## I. Summary:

Current law requires that residential multi-family dwellings that are at least 75 feet in height and have a public elevator must be capable of operating at least one elevator on alternate generated power. The elevator must be able to operate for an unspecified number of hours each day for a period of five days after a disaster or emergency resulting in an electrical power outage.

The bill extends from December 31, 2006 to December 31, 2008, the date by which a person, firm, or corporation that owns, manages, or operates a building required to have alternate generated power must provide to the local building inspection agency verification of engineering plans for alternate generated power.

The bill also extends from December 31, 2007 to December 31, 2009, the date by which the local building inspectors must verify the installation and operational capability of the alternate generated power source and report to the county emergency management director.

This bill substantially amends section 553.509, Florida Statutes.

## II. Present Situation:

### Elevator Regulation

Chapter 399, F.S., which may be cited as the "Elevator Safety Act," establishes minimum standards for elevator safety. The Bureau of Elevator Safety of the Division of Hotels and Restaurants with the Department of Business and Professional Regulation is the agency charged

with enforcing the provisions of ch. 399, F.S.[1] Section 399.061, F.S., requires the inspection of elevators by a certified elevator inspector or by a municipality or county under contract with the division.

Section 399.01(6), F.S., defines the term elevator to mean:

> One of the following mechanical devices:
> (a) A hoisting and lowering mechanism, equipped with a car and platform that moves in guide rails and serves two or more landings to transport material or passengers or both.
> (b) An escalator, which is a power-driven, inclined continuous stairway used for raising or lowering passengers.
> (c) A dumbwaiter, which is a hoisting and lowering mechanism equipped with a car of limited size which moves in guide rails and serves two or more landings.
> (d) A moving walk, which is a type of passenger-carrying device on which passengers stand or walk and in which the passenger-carrying surface remains parallel to its direction of motion and is uninterrupted.
> (e) An inclined stairway chairlift, which is a device used to transport physically handicapped persons over architectural barriers.
> (f) An inclined or vertical wheelchair lift, which is a device used to transport wheelchair handicapped persons over architectural barriers.

**Alternate Power Generators for Elevators**

Section 553.509(2)(a), F.S., requires that any person, firm, or corporation that owns, manages, or operates a residential multi-family dwelling, including a condominium, which is at least 75 feet high and contains a public elevator, to have at least one elevator capable of operating on alternate generated power. In the event of a general power outage, this elevator must ensure that residents have building access for an specified number of hours each day over a five-day period following a natural or manmade disaster, emergency, or other civil disturbance. The alternate generated power source must be capable of powering any connected fire alarm system which controls elevator operations in the building.

Section 553.509(2)(b), F.S., provides that, at a minimum, the elevator must be appropriately pre-wired and prepared to accept alternate generated power. The power source must be capable of powering the elevator, a connected building fire alarm system, and emergency lighting in the internal lobbies, hallways, and other internal public portions of the building. Such dwellings must either have a generator and fuel source on the property or proof of a current guaranteed service contract providing such equipment and fuel source within 24 hours of a request.

Section 553.509(2)(b), F.S., requires that the person, firm, or corporation that owns, manages, or operates a building affected by this requirement must provide to the local building inspection agency verification of engineering plans for alternate generated power capability by December 31, 2006.

[1] *See* s. 399.10, F.S.

The local building inspectors must verify the installation and operational capability of the alternate generated power source and report to the county emergency management director by December 31, 2007.

Newly constructed residential multi-family dwellings meeting the criteria of this section must meet the engineering, installation, and verification requirements before occupancy.

**Florida Building Commission**

Chapter 553, F.S., establishes the Florida Building Commission (commission) and the Florida Building Code. The commission is authorized to adopt and maintain code as a single, unified state building code consisting of a single set of documents that apply to the design, construction, erection, alteration, modification, repair, or demolition of public or private buildings or structures, and to enforce requirements providing for effective and reasonable protection for the public safety, health, and welfare of the citizens of Florida. The commission is administered and staffed by the Department of Community Affairs (DCA), and commission activities are funded through an "under roof floor space assessment" of one-half cent per square foot. The local government responsible for collecting a permit fee collects the surcharge and remits it to the DCA quarterly.

The commission is charged with the responsibility of amending and updating the code every three years to make recommendations on which laws should be revised or repealed to maintain consistency with the code, and can approve technical amendments to the code once each year. The first triennial update of the code became effective in October 2005, and the second update is due this year and will use the 2006 International Building Codes as a foundation.

**Florida Building Code**

The Florida Building Code (code) requires high-rise buildings[2] be provided with Class 1, Type 60 standby power.[3] The code requires high-rise emergency power be provided for elevator car lighting and emergency voice/alarm communications systems. Standby power is required for power and lighting for the fire command center, electrically powered fire pumps, ventilation and automatic fire detection equipment for smoke proof enclosures, and elevators.

Section 3003 of the Florida Building Code requires that:

- Standby power shall be manually transferable to all elevators in each bank;
- If there is only one elevator, it shall automatically transfer to standby power within 60 seconds after failure of normal power;
- If there are two or more elevators controlled by a common operating system, all elevators must transfer to standby power within 60 seconds, providing the standby power source is of sufficient capacity to operate all elevators at the same time. Where the power source is not sufficient, then all elevators shall transfer to standby power in sequence, return to the

[2] The code defines a high-rise building as a building having occupied floors located more than 75 feet above the lowest level of fire department vehicle access. *See* s. 403.1, Florida Building Code.
[3] *See* s. 1006.2.4, Florida Building Code.

designated landing and disconnect from the standby power source, then at least one elevator shall remain operable on standby power; and
- Where standby power is connected to elevators, the machine room ventilation or airconditioning shall also be connected to the standby power source.

Emergency and standby power must be installed in accordance with NFPA 70 (the National Electrical Code) and NFPA 110 (the Standard for Emergency and Standby Power Systems).[4]

## III. Effect of Proposed Changes:

The bill amends s. 553.509(2)(b), F.S., to extend from December 31, 2006 to December 31, 2008, the date by which a person, firm, or corporation that owns, manages, or operates a building of at least 75 feet in height must provide to the local building inspection agency verification of engineering plans for alternate generated power.

The bill also extends from December 31, 2007 to December 31, 2009, the date by which the local building inspectors must verify the installation and operational capability of the alternate generated power source and report to the county emergency management director.

## IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

## V. Economic Impact and Fiscal Note:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

To engineer and pre-wire a gas station in compliance with this bill, and to install the appropriate generator wiring, coupling, and transfer switch is estimated by industry representatives to cost approximately $4,000 per station. This cost would be borne initially by the station owner.

[4] *See* s. 2702.1, Florida Building Code.

Options to power the station by portable generator include purchase and guaranteed services contracts in which a second party provides the generator, maintenance, and servicing for a fee. Costs for purchasing a generator are dependent on each individual application. As an approximate general rule, standby generators cost $300 to $500 per kilo-watt. Thus, a 20 KW standby generator would cost between $6,000 and $10,000. A 100 KW generator would cost between $30,000 and $50,000.

The cost of a guaranteed services contract would be subject to many variables and is unknown. However, it is likely to be considerably less than the cost of a purchased generator.

Persons, firms, or corporations that own, manage, or operate buildings could defer until December 31, 2008 the cost associated with providing engineering plans for alternate generated power to the local building inspection agency for verification, including the costs of developing the engineering plans.

The bill would also permit these persons to defer until December 31, 2009, the date by which the local building inspectors would have to verify the installation and operational capability of the alternate generated power source.

C. Government Sector Impact:

None.

## VI. Technical Deficiencies:

None.

## VII. Related Issues:

None.

# VIII. Summary of Amendments:

None.