

SUNSET EVALUATION REPORT
ELEVATOR MECHANICS
Chapter 448H, Hawaii Revised Statutes

A Report to the Governor and the Legislature of the State of Hawaii

Submitted by the
Legislative Auditor of the State of Hawaii

Report No. 83-1
January 1983

FOREWORD

Under the "sunset law," licensing boards and commissions and regulated programs are terminated at specified times unless they are reestablished by the Legislature. Nationally, the first sunset law was passed in 1976. Within three years, 30 more states had enacted similar legislation. The rapid spread of sunset legislation reflects increasing public concern with what it sees as unwarranted government interference in everyday activities.

Hawaii's Sunset Law, or the Hawaii Regulatory Licensing Reform Act of 1977, scheduled for termination 38 occupational licensing programs over a six-year period. These programs are repealed unless they are specifically reestablished by the Legislature. In 1979, the Legislature assigned the Office of the Legislative Auditor responsibility for evaluating each program prior to its repeal.

This report evaluates the regulation of elevator mechanics under Chapter 448H, Hawaii Revised Statutes. It presents our findings as to whether the program complies with the Sunset Law and whether there is a reasonable need to regulate elevator mechanics to protect public health, safety, or welfare. It includes our recommendation on whether the program should be continued, modified, or repealed.

Our approach to the evaluation of the regulation of elevator mechanics is described in Chapter 1 of this report under "Framework for Evaluation." That framework is also used for all our other sunset evaluation reports. It is based on the policies enunciated by the Legislature in the Sunset Law. The first and basic test we applied was whether an identifiable danger to public health, safety, or welfare could result from the conduct of the occupation or profession being regulated. Then the other criteria for the evaluation were applied.

We acknowledge the cooperation and assistance extended to our staff by the Elevator Mechanics Licensing Board, the Department of Commerce and Consumer Affairs, and other officials contacted during the course of our examination.

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January 1983

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Chapter 1

INTRODUCTION

The Hawaii Regulatory Licensing Reform Act of 1977, or Sunset Law, repeals statutes concerning 38 state licensing boards and commissions over a six-year period. Each year, six to eight licensing statutes are scheduled to be repealed unless specifically reenacted by the Legislature.

In 1979, the Legislature amended the law to make the Legislative Auditor responsible for evaluating each licensing program prior to its repeal and to recommend to the Legislature whether the statute should be reenacted, modified, or permitted to expire as scheduled. In 1980, the Legislature further amended the law to require the Legislative Auditor to evaluate the effectiveness and efficiency of the licensing program, even if he determines that the program should not be reenacted.

Objective of the Evaluation

The objective of the evaluation is: To determine whether, in light of the policies set forth in the Sunset Law, the public interest is best served by reenactment, modification, or repeal of Chapter 448H, Hawaii Revised Statutes.

Scope of the Evaluation

This report examines the history of the statute on licensing of elevator mechanics and the public health, safety, or welfare that the statute was designed to protect. It then assesses the effectiveness of the statute in preventing public injury and the continuing need for the statute.

Organization of the Report

This report consists of three chapters: Chapter 1, this introduction and the framework developed for evaluating the licensing program; Chapter 2, background information on the regulated industry and the enabling legislation; and Chapter 3, our evaluation and recommendation.

*NOTE: Originals for pages 2-5 are filed with Report No. 83-7,
Sunset Evaluation Report, Real Estate Brokers and Salesmen,
Chapter 467, Hawaii Revised Statutes.*

Chapter 2

BACKGROUND

Elevator mechanics are regulated under Chapter 448H, Hawaii Revised Statutes. No person is permitted to operate or practice as an elevator mechanic unless properly licensed by the Elevator Mechanics Licensing Board. The law defines an elevator mechanic as follows:

“‘Elevator mechanic’ means any person who engages in the construction, reconstruction, alteration, maintenance, mechanical, or electrical work or adjustments of any elevator, dumbwaiter, stage lift, mechanized parking garage elevator, escalator, moving walk or ramp, manlift including any construction, reconstruction, alteration, or adjustment of the structure or facility of which the same may be a part or to which the same may be attached, necessary for proper completion of the work on the elevator, dumbwaiter, stage lift, mechanized parking garage elevator, escalator, moving walk or ramp, or manlift.”

Occupational Information

An elevator is a conveyance designed to lift people and materials vertically. Various versions of vertical lifts have been around for centuries. In 326 B.C., Archimedes developed a lifting device operated by ropes and pulleys.¹ Guided movable platforms have been found in what are believed to be shafts in ancient Roman ruins. Even today, animal or manually driven hoists or windlasses are commonly found in many countries.

The modern elevator age began in 1853 when Elisha Graves Otis invented a safety device that would prevent elevators from falling even should the lifting device fail.² Otis also established America’s first elevator manufacturing company. In 1857, the first passenger elevator was installed in New York; it traveled five stories at what was

1. Otis Elevator Company, *Special Report, What Passengers Should Know About Elevators and How They Work*, no date.

2. George R. Strakosch, *Vertical Transportation: Elevators and Escalators*, John Wiley and Sons, Inc., 1967.

considered then to be the amazing speed of 40 feet per minute. Escalators were introduced in 1900 at the Paris Exposition, also by the Otis Elevator Company.³ In Hawaii, the first elevator was installed in 1902 in the old H. Hackfield and Co. building on Bishop Street.⁴

A recent inventory from the Department of Labor and Industrial Relations shows that as of June 1982, there were 3,606 lift type conveyances in Hawaii. Of these, 3,080 or 85 percent are elevators, 8 percent are dumbwaiters, and 7 percent are escalators. In addition, there are a few manlifts and inclined lifts.⁵

Originally, different trades were involved in installing and maintaining elevators. As the industry grew, elevator mechanics became a specialized field which required workers to be familiar with carpentry, iron work, plumbing, rigging, and electrical work. Elevator mechanics are among the highest paid of all the trades today.

An estimated 17,500 elevator mechanics are employed by the elevator industry nationally.⁶ Most are employed by elevator manufacturers or by contractors engaged in elevator installation, maintenance, and repair. Others work for government or for business establishments. In Hawaii, as of August 1982, there were 161 licensed elevator mechanics employed by locally licensed elevator contractors.⁷

The vast majority of elevator mechanics belong to the International Union of Elevator Constructors (IUEC). The National Elevator Industry, Inc. (NEII), an association of the major elevator manufacturers, bargains nationally with the IUEC. The present national labor agreement between the IUEC and the NEII requires elevator contractors to employ only members of the IUEC.

Both the elevator industry and the IUEC have a vested interest in preserving the safety of elevators and related equipment and, correspondingly, in the competence of elevator mechanics. Beginning in 1967, the NEII and the IUEC agreed to establish an

3. *Ibid.*

4. "Up and Downs of Old Elevators," *Honolulu Star-Bulletin*, May 14, 1974.

5. State of Hawaii, Department of Labor and Industrial Relations, *Inventory of Elevators, Etc., as of June 30, 1982*.

6. U.S. Bureau of Labor Statistics, *Occupational Outlook Handbook, 1982-83*, April 1982, p. 348.

7. State of Hawaii, Department of Commerce and Consumer Affairs, *Geographic Report*, August 1982.

educational trust, the National Elevator Industry Educational Program (NEIEP), to provide a nationally standardized program for educating and training elevator mechanics.⁸ All those who hope to become elevator mechanics must go through the training program.

The NEIEP is funded through contributions from elevator companies. It provides financial support for standardized courses of training, classroom facilities, training aids, and instructors. It prescribes the minimum training requirements for advancement from a new probationary helper to a helper and then to a full journeyman elevator mechanic.

Responsibility for the NEIEP in each geographical area is assigned to a local Joint Educational Committee. The committee consists of three representatives from the union and three from the employer. The local committee administers the NEIEP curriculum, selects instructors and suitable classroom facilities, keeps track of all records and funds relating to the local program and arranges for the NEIEP examinations.

The NEIEP requires all new hires to begin as probationary helpers. To become helpers, probationary hires must complete a curriculum consisting of four educational and training modules, covering such aspects as introduction to elevators and safety, basic electricity, etc.; receive satisfactory ratings on overall job performance; and pass a helper examination given by the local Joint Educational/Examining Committee. Probationary helpers earn 50 percent of a journeyman's wages.

Once they complete the probationary period, helpers are paid at 70 percent of a journeyman's wage. To become journeymen, they then have to take another ten modules of study. These include study in construction wiring, hydraulics, circuit tracing, etc. Helpers have to pass a final examination in specified modules with a grade of 70 percent or more. They also must have three years experience in the trade and pass the elevator mechanics examination. The elevator mechanics examination is a national examination administered in Hawaii once a year by the national NEIEP director's office.

All helpers must work under the supervision of a journeyman elevator mechanic. The customary arrangement is to have one helper to each journeyman. Only a journeyman can work without supervision.

8. National Elevator Industry Educational Program, *Manual of Standard Operating Procedures*.

History of Regulation

Regulation of elevators. While the State has been regulating elevator mechanics only since 1968, government in Hawaii has been regulating the safety of the elevator since 1929. In that year, the City and County of Honolulu enacted an ordinance that included requirements for the regular inspection of elevators and approval of applications for installing or altering elevators.⁹

Eventually, regulation and inspection of elevators passed from the City to the Territory and then to the State. The Department of Labor and Industrial Relations (DLIR) has had particular responsibility and authority for elevator safety. In 1957, it promulgated a general safety code that superseded the City's ordinance on elevators.¹⁰ The code prescribed the safety conditions required by the DLIR for elevators, dumbwaiters, escalators, moving walks, and manlifts.¹¹ Elevators were to be inspected regularly for safety and had to have permits to operate.

According to the code, elevator inspections could only be made by those certified as competent by the DLIR. The department gave commissions as elevator inspectors to applicants who met certain qualifications, including experience requirements and passing an examination. These commissioned safety inspectors either worked for a fee or were employed by insurance companies. They inspected all elevators except new installations. Acceptance of new installations could only be made by commissioned elevator inspectors in the employ of the DLIR.

In 1972, the DLIR was assigned overall responsibility for administering occupational safety and health standards in the State under the Occupational Safety and Health Act (OSHA). Elevator safety regulations continued under this law but the DLIR had no specific statutory responsibility for elevator safety until Act 22, 1974, amended OSHA by requiring that all elevators, both existing and new installations, could only be inspected by qualified elevator inspectors employed by the DLIR.

9. City and County of Honolulu, Ordinance No. 490, 1929.

10. "City Inspectors Up in Air Over Ruling on Elevators," *Honolulu Advertiser*, February 26, 1961.

11. State of Hawaii, Department of Labor and Industrial Relations, *State of Hawaii General Safety Code*, Rule XX, Chapter 22, "Elevators, Dumbwaiters, Escalators, Moving Walks and Manlifts," Effective January 1, 1957.

In 1980, the Legislature enacted the Boiler and Elevator Safety Law (Chapter 397, HRS) which gave greater and more specific statutory authority to the DLIR for ensuring the safety of boilers and elevators.

The current statute expands and clarifies the State's authority for an elevator safety program. Whereas the DLIR's jurisdiction under OSHA focused on workplaces and limited inspections to elevators in places of employment, the new law authorizes the DLIR inspectors to have access to any place with equipment requiring inspection for public safety. It allows the department greater flexibility in providing advance notice of inspections and it provides for civil penalties to support enforcement. The law establishes a new Boiler and Elevator Inspection Bureau in the DLIR to conduct the safety program.

The department now has the power to adopt and enforce rules and regulations, promulgate emergency standards, issue permits to operate, establish criteria for periodic inspections, have the right of access to any premises with equipment that is subject to inspection, investigate any accidents, undertake programs in training and education, and enforce compliance with the law.

No elevator or related equipment may be operated without a permit from the department. All permits have to be renewed annually. Permits are not issued unless the equipment is found to be safe by a state elevator inspector. The DLIR's Boiler and Elevator Inspection Bureau currently employs 10 elevator inspectors. Routinely, they check all passenger and freight elevators twice a year. Dumbwaiters are checked once a year. At least once every five years, the DLIR conducts full load, full performance tests on elevators. This is done every three years on hydraulic elevators.

While primary responsibility for elevator safety rests with the State, the counties are involved through their respective building codes. The building codes incorporate national safety standards for elevators and related equipment developed by the American National Standards Institute (ANSI) and the American Society of Mechanical Engineers (ASME).

Almost all jurisdictions nationally require compliance with ANSI 17.1, the national safety code for elevators and escalators issued by ANSI/ASME. These two organizations also issue safety codes for manlifts and mechanized parking garages and standards for the inspection of elevators. The first edition of the code was issued in 1921 and it has been updated and revised regularly since then.

Each of the counties in Hawaii requires compliance with ANSI 17.1 under their uniform building codes, and the counties will not issue building permits to contractors until the DLIR has reviewed the building plans.

The DLIR regulations also require all new elevator installations to conform with ANSI 17.1.¹² In addition to the DLIR's review of overall building plans, elevator companies are required to submit detailed elevator installation plans to the Boiler and Elevator Inspection Bureau for its approval in order to get an installation permit. Under its rules, the DLIR will issue installation permits only to those who are licensed as elevator contractors by the state Contractors License Board. Also, any construction, reconstruction, alteration or adjustment of elevators can only be done by qualified employees of a company holding a license as an elevator contractor.

Regulation of elevator mechanics. Prior to the present system of licensing elevator mechanics, the DLIR exercised controls through certificates of registration. In 1967, the department adopted amendments to Chapter 22 of the General Safety Code specifying that any construction, reconstruction, alteration, or adjustment of any elevator or related equipment must be done by a trained elevator mechanic.¹³ The rule prohibited any person from engaging in such work after June 1968 without a valid certificate of registration from the department.

To be eligible for a certificate, applicants had to be able to read, write, and understand the English language; be able to read blueprints and plans and specifications; and have at least two years of experience in elevator work under the direction of an elevator mechanic. Applicants also had to pass a written examination prepared by the department.

In 1971, these responsibilities were shifted to an Elevator Mechanics Licensing Board. The board was placed in the Department of Regulatory Agencies (now the Department of Commerce and Consumer Affairs) for administrative purposes. It

12. State of Hawaii, Title 12, Department of Labor and Industrial Relations, Subtitle 8, Division of Occupational Safety and Health, Part II, Elevators and Related Systems, Chapter 230, "Elevators, Dumbwaiters, Escalators and Moving Walks," Section 12-230-2.

13. Rules of the Director of Labor and Industrial Relations of the State of Hawaii, Amendments to Chapter 22, Rule XX of the Department of Labor and Industrial Relations relating to elevators, dumbwaiters, escalators, moving walks and manlifts, approved February 13, 1967.

consisted of five members; three of the members were to be licensed elevator mechanics and the remainder were to be lay members not associated with the elevator or building industry.

The board was empowered to establish rules and regulations, to develop standards for licensure, and to prepare and administer examinations to test the qualifications of applicants. The board was also to advise the DLIR on its rules and regulations relating to elevators and other similar apparatus.

The law prohibited a person from practicing as an elevator mechanic unless licensed under the provisions of the law. In order to be licensed, a person had to satisfy three requirements: (1) be a resident of the State for at least one year; (2) pass the examination administered by the board; and (3) complete at least two years of training under the supervision of a licensed, registered or journeyman elevator mechanic.¹⁴

The impetus for the law came from Local 126 of the International Union of Elevator Constructors. It testified before the House Committee on Labor that public safety was being threatened by incompetent mainland personnel who were approaching hotels, apartment buildings, and offices for elevator maintenance and repair work. Local 126 also testified that mainland contractors were bidding on local jobs and planning to use men without experience in elevator construction and maintenance. The union supported a one-year residency requirement and it favored a state licensing law as opposed to the industrial safety regulations that were then in effect.¹⁵

At the same time, both the International Union of Elevator Constructors and the National Elevator Industry, Inc. had reservations about the bill. The IUEC was opposed to any law that might deny employment to any member in good standing with the union, that might require an additional examination of these members, or that might prohibit their temporary assignment to other areas of the country.¹⁶

14. Section -6, Act 190, SLH 1971.

15. Testimony in favor of House Bill 1437, Committee on Labor, by Robert Haddon. Local 126, International Union of Elevator Constructors, March 17, 1971.

16. Testimony on House Bill 1437 Relating to Elevator Mechanics submitted to the Honorable Yoshito Takamine, Chairman, House Labor Committee by Thomas E. Fitzgerald, General Secretary-Treasurer, International Union of Elevator Constructors, March 19, 1971.

The NEII concurred in these concerns. Both organizations were also concerned that the board would have no representatives from the elevator industry or other state enforcing agencies. In addition, the NEII said that the law would restrict the ability of an elevator company to expand temporarily to meet an increase in business by bringing in mechanics from other areas on a temporary basis.¹⁷

The Legislature decided that the increasing complexity of elevators and their more general use made it necessary to have stringent requirements for licensing those who work on such equipment.¹⁸ Act 190, SLH 1971, was enacted which established the Elevator Mechanics Licensing Board and the present licensing system.

Few substantive changes were made to the law between 1971 and 1979. Those changes made were merely to expand and clarify the definition of elevator mechanics and apprentices. In 1973, the one-year residency requirement was eliminated as being unnecessary for ensuring competency and constitutionally defective.¹⁹

In 1979, two substantive amendments were made to the law after public hearings were held by the Legislature on whether Chapter 448H should be repealed effective December 31, 1979 in compliance with the Sunset Law. The Elevator Mechanics Licensing Board first agreed that the statute establishing the board should be repealed. However, in an amended impact statement submitted to the Legislature, the board recommended that Chapter 448H be extended for another six years.²⁰

Although the Legislature recognized that the board had been relatively inactive and had not been involved in such matters as complaints resolution, it decided that the continued existence of the board was in the interest of the public. To stimulate the board and to allow greater opportunity for consumer input, the Legislature amended the law in two ways: (1) it expanded the number of board members from five members to seven members; and (2) it added complaints about the job performance of mechanics to the kinds of complaints that the board must receive, investigate, and act upon.²¹

17. Testimony on House Bill 1437 Relating to Elevator Mechanics submitted to the Honorable Yoshito Takamine, Chairman, House Labor Committee by J. M. Flynn, Chairman, NEII Labor Committee Area 14, March 19, 1971.

18. House Standing Committee Report No. 385 on House Bill 1437, Regular Session of 1971.

19. House Standing Committee Report No. 25 on House Bill 194, Regular Session of 1973.

20. *Impact Statement*, Board, Elevator Mechanics, Amended February 23, 1979.

21. Act 217, SLH 1979.

Nature of Regulation

Hawaii is one of nine states that regulate elevator mechanics.²² In Hawaii, they are regulated by the Elevator Mechanics Licensing Board which consists of seven members: three licensed elevator mechanics, three lay persons with no connection to the elevator or building industry, and the manager of the technical inspection branch of the division of occupational health and safety of the DLIR. The members are appointed by the Governor and serve without compensation but are reimbursed for expenses incurred in the performance of official duties.

The board elects its own chairman. The law requires that the board meet at least once a year with five members constituting a quorum. It has the authority to adopt rules and regulations; to develop and apply standards and techniques, including examinations and investigations; and to insure that only those who are qualified become licensed elevator mechanics. It may issue, revoke or suspend licenses; establish and carry out procedures to ensure compliance with Chapter 448H, HRS, and its rules and regulations; investigate and act on complaints; register apprentices; maintain records of its proceedings; and advise the DLIR on its rules and regulations relating to elevators and allied equipment. It is also to notify the DLIR of any violations of occupational safety and health.

Chapter 448H, HRS, regulates both elevator mechanics and apprentice elevator mechanics. The law defines an apprentice elevator mechanic as “any person who is in training to acquire the skills to become an elevator mechanic and who is required to work for at least two years under the supervision of an elevator mechanic duly licensed under the provision of Section 448H–6.”²³

In addition to the apprentice and the previously defined elevator mechanic, the board has added two other categories in its rules: journeyman elevator mechanics and elevator mechanic helpers. A journeyman elevator mechanic is defined in the rules as “any person who has satisfactorily passed the examination given by the Joint Examining

22. Connecticut General Assembly, Legislative Program Review and Investigation Committee, *Sunset Review 1982, Occupational Licensing Boards*, v. III-5, January 1982, p. 19.

23. Section 448H–1(3).

Committee of the National Elevator Industry, Incorporated, and the Elevator Constructors Union or by having previously passed an Elevator Constructors Union test prior to the initiation of the test given by the Joint Examining Committee.”²⁴

Elevator mechanic helpers are the same as apprentice elevator mechanics. In the trade, they are commonly referred to as helpers rather than apprentices. The rules require both elevator mechanic helpers and apprentice elevator mechanics to be registered with the board. They must complete an application form and submit a recent photograph. They may perform the work of an elevator mechanic when under the supervision of a licensed elevator mechanic.

To become licensed, applicants must submit documentary proof that they have satisfactorily completed two years of training as an apprentice or helper. The recorded date of registration with the Department of Commerce and Consumer Affairs as an apprentice or helper is supposed to be used as the starting date of training. Applicants must submit two letters of reference attesting to their good moral character. A license is issued when the applicant successfully passes the written examination required by the board.

The board may issue temporary permits to qualified journeyman elevator mechanics from other states if licensed elevator mechanics are not available locally. These permits are for a three month period or for the duration of the job. Applications for temporary permits must be accompanied by affidavits showing that the applicant has good moral character, has qualified as an elevator mechanic in another state by passing the examination given by the Joint Examining Committee of the NEII and the IUEC, and has worked as an elevator mechanic for at least two years.

The law provides for penalties of \$500 for a first offense for those who violate Chapter 448H, HRS. Subsequent offenses may be subject to fines of not more than \$1000 or imprisonment for not more than one year, or both. The board may also apply to the courts for an injunction to enjoin unlicensed persons from practicing as elevator mechanics.

24. State of Hawaii, Title 16, Department of Regulatory Agencies, Chapter 81, “Rules Relating to Elevator Mechanics, Chapter 448H, Hawaii Revised Statutes,” Section 16-81-3.

Chapter 3

EVALUATION OF THE REGULATION OF ELEVATOR MECHANICS

This chapter contains our evaluation of the regulation of elevator mechanics under Chapter 448H, Hawaii Revised Statutes, and our assessment and recommendation on the continuing need for regulation.

Summary of Findings

We find that:

1. State regulation is needed to protect the public from potential injury by elevators and other related equipment, but state licensing by the Elevator Mechanics Licensing Board does nothing to establish or advance the competency of those who work on elevators. Rather, this is established through the observance of industry-wide standards of training and examination.
2. The safety of elevators is not covered by Chapter 448H, HRS, but is provided through other regulatory provisions, such as state and county standards for elevators and related equipment, and inspections and enforcement by the Department of Labor and Industrial Relations (DLIR).
3. Because its licensing activities are limited and perfunctory and elevator safety is outside its purview, the Elevator Mechanics Licensing Board has little work to do and, therefore, little reason to meet.

The Need for Regulation

As with any other kind of large, complex, moving machinery, elevators and other similar equipment can be dangerous. They have caused serious injury as well as fatalities. There have been two deaths in Hawaii because of elevators. In 1937, a bellboy was killed by a freight elevator in a downtown hotel. In 1962, a Waikiki hotel maintenance worker was killed by an elevator after he had helped to free a hotel guest from a stalled elevator.¹

1. "Man Killed by Elevator," *Honolulu Star-Bulletin*, September 26, 1962.

The impetus for licensing came from the fear that untrained persons would be working on elevators. Testimony presented at the Legislature at the time the law was passed said that many incompetent workers were coming to Hawaii from the mainland and that their poor workmanship could threaten public safety. There was also the fear that mainland contractors might get work in Hawaii using untrained workers.

This threat never materialized as competency is being insured through two major controls, neither of which is related to the licensing activities of the Elevator Mechanics Licensing Board. *First*, the only people working on elevators in Hawaii are trained mechanics or helpers in training who are members of the union. *Second*, all elevator work in Hawaii is done by companies that are licensed in Hawaii as specialty elevator contractors. They are the sole employers of elevator workers. These contractors have a vested interest in ensuring the competency of their employees.

Use of trained mechanics. There were grounds for apprehension at the time the law was passed. The State was in the middle of a building boom. Local elevator contractors found that Local 126 of the International Union of Elevator Constructors (IUEC) did not have sufficient manpower to meet the workload. The elevator contractors had to bring in men from the mainland on temporary assignments. However, the fear that these would be untrained workers proved to be groundless. Those brought in by the elevator contractors were trained mechanics from the IUEC.

As noted in Chapter 2, all union personnel must undergo the nationally standardized training program established by the IUEC and the National Elevator Industry, Inc. (NEII). Furthermore, all eight elevator contractors in Hawaii abide by the national labor agreement between the IUEC and the NEII that requires them to hire only union members as elevator helpers or elevator mechanics. At the present time, they employ exclusively those who are members of Local 126 of the IUEC. There are no untrained, non-union persons working on elevators.

Use of licensed elevator contractors. State regulations require that all elevator work be done by licensed elevator contractors. Under Chapter 444, HRS, anyone assembling, installing, and maintaining any devices, apparatus, or equipment for the installation and operation of electrical, hydraulic, and manually operated elevators, dumbwaiters, moving

walks or ramps, conveyor systems, stage lifts, escalators, and manlifts must have a license as a specialty elevator contractor from the Contractors License Board.²

The requirement that elevator work be performed only through licensed contractors is also in the rules of the Department of Labor and Industrial Relations which specify that: (1) no elevators or related equipment shall be installed without an installation permit and installation permits are to be issued only to those who are licensed to be in the business of installing elevators, dumbwaiters, and escalators by the state Contractors License Board,³ and (2) “construction, re-construction, alteration and mechanical or electrical work or adjustments that affect safe operation of any elevator, dumbwaiter, escalator, or moving walk shall be performed only by *qualified employees of companies holding the appropriate license from the contractors license board* of the department of regulatory agencies, State of Hawaii.”⁴ [Emphasis added.]

These rules prevent untrained elevator mechanics from offering services directly to the public. All elevator services must be supplied through licensed elevator contractors.

At the present time, all elevator work in Hawaii is performed by eight companies. They are all licensed by the state Contractors License Board to do business as elevator contractors. As licensed contractors, they are required to carry liability insurance. Sound business sense dictates that they ensure the competency of their employees. Should their employees do incompetent work, the elevator contractors would be responsible and liable for their work. Thus, in addition to using only union trained elevator mechanics or helpers, some of the local companies supplement the union training with training programs of their own.

2. State of Hawaii, Title 16, Department of Regulatory Agencies, Chapter 77, “Rules Relating to Contractors, Chapter 444, Hawaii Revised Statutes,” Section 16-77-28(2)c16.

3. State of Hawaii, Title 12, Department of Labor and Industrial Relations, Subtitle 8, Division of Occupational Safety and Health, Part II, Elevators and Related Systems, Chapter 230, “Elevators, Dumbwaiters, Escalators and Moving Walks,” Section 12-230-7(b).

4. *Ibid.*, Section 12-230-12(b).

Code Enforcement

The safety of elevators and other similar equipment is regulated in another important way that has a more direct bearing on protecting the public. This is the requirement that elevators and related equipment meet national safety standards established by the American National Standards Institute (ANSI) and the American Society of Mechanical Engineers (ASME) or ANSI 17.1. As described in Chapter 2, these standards are incorporated into the uniform building codes of the counties and the rules issued by the DLIR.

The DLIR has considerable authority to enforce elevator safety standards through its inspection and permit process. Inspections are performed in accordance with an inspection manual developed by the ANSI. Unless an elevator is found to be safe by a state elevator inspector, the DLIR will not issue a permit to operate.

The DLIR has had occasion to deny permits to operate but this happens but rarely. It has the power to issue orders to owners, contractors, and other responsible parties to undertake whatever changes are necessary to make the equipment safe. The department may assess civil penalties for non-compliance; it can apply for an injunction to restrain the operation of unsafe equipment; and it can prosecute and defend actions to enforce the provisions of Chapter 397, HRS.

Because of its long standing responsibility for elevator safety and because of its enforcement powers under the law, all complaints about elevators go to the Boiler and Elevator Inspection Bureau rather than the Elevator Mechanics Licensing Board. According to the Inspection Bureau, these are primarily from irate riders who complain about the noise of elevators or their failure to stop completely level with the floors.

Elevator Safety

Although elevators have the potential to cause serious injury, they are considered to be a safe form of transportation. Modern elevators are sophisticated devices equipped with numerous safety features and back-up safety systems. Those knowledgeable about elevators say that passengers are never in any danger so long as they stay in the elevator cab. According to the Otis Elevator Company, there were some 400,000 elevators in the

United States and Canada in 1979. They carried over 50 billion people 1.7 billion miles and there was only one serious accident for every 65 million miles traveled.⁵

The majority of other states do not regulate either elevator companies or elevator mechanics. As noted in Chapter 2, only nine states have some form of regulation over elevator mechanics. Most jurisdictions only require compliance with ANSI 17.1 through their building codes. New York and Chicago, two of the most heavily populated cities in the United States and with the world's highest elevators, do not regulate elevator mechanics but rely on enforcement of ANSI 17.1. At present, Hawaii has stricter standards than most other states for in addition to the requirements in the uniform building codes, it also has the inspection and enforcement program by the DLIR, and the requirement for the licensing of elevator contractors.

Relationship of Licensing to Protection

The activities of the Elevator Mechanics Licensing Board are largely unrelated to either establishing or ensuring the competence of those who work on elevators.

The board recognizes its limitations. In the 1979 Impact Statement which it submitted to the Legislature, the board admitted that it could neither measure nor evaluate the performance of licensees. It said also that it had no means to insure that licensees will remain competent and had taken no action in that regard.⁶

The licensing test that is given to applicants who wish to become elevator mechanics is a locally developed test that has not been revised or updated since it was first developed in 1972. There is no evidence that it actually measures competency.

Helpers who apply to take the licensing test have dwindled to an insignificant number. In 1980, only eight applied and in 1981, only six applied. Five were granted licenses in 1980, four in 1981, and only two as of August 30, 1982. The decrease in the number of applicants may be attributed to the general slowdown in the economy. Fewer people are entering the trade as no probationary helpers are hired if there are any helpers

5. Otis Elevator Company, *Special Report, What Every Passenger Should Know About Elevators and How They Work*, no date.

6. *Impact Statement*, Elevator Mechanics, Chapter 448H, Hawaii Revised Statutes, January 26, 1979.

who are unemployed. This trend is also seen in the absence of new registrations at the Department of Commerce and Consumer Affairs (DCCA). The law requires all new apprentices and helpers to be registered at the DCCA. According to the licensing and records branch at the DCCA, no new apprentices or helpers have been registered for several years.

The license itself is unrelated to actual job responsibility or wages paid. Even should applicants pass the test and acquire state licenses as elevator mechanics, they may not be able to work as journeyman elevator mechanics. The State requires applicants to have only two years of experience to be eligible to take the licensing examination while the National Elevator Industry Educational Program (NEIEP) requires three years of experience before allowing helpers to take its journeyman elevator mechanics examination. This means that state licensed elevator mechanics with two years experience cannot work as journeyman elevator mechanics but must remain helpers working under the supervision of journeymen until they acquire the three years of experience and pass the NEIEP examination.

Inactive Board

The board has been inactive. It has not been able to comply with the statutory requirement that it meet once a year. The board met once in 1977, once in 1978, and it did not meet in either 1979 or 1980. On May 12, 1981, a meeting was called to adopt rules which had been converted to a new format as required by Section 91—5, HRS, and to adopt Uniform Rules of Administrative Procedure. The board proceeded to adopt these rules even though it lacked a quorum. Section 448H—4, HRS, specifies that five members of the board shall constitute a quorum but only four members were present. The DCCA issued the rules as official rules of the board even though their adoption was of doubtful validity. Two other meetings were called in 1981, but both were cancelled for lack of a quorum.

One reason given by board members for their inactivity is that they really have very little reason to meet. The board has no business to conduct. It has never received any complaints about elevator mechanics. These are handled by the Boiler and Elevator Inspection Bureau of the DLIR. It does not participate in administering or in reviewing

the licensing applications or examinations. This has been delegated to staff at the DCCA. It has no program to ensure continuing competency, and it has never revoked or suspended a license.

On September 24, 1982, the board finally managed to meet in an official capacity for the first time in four years. Six members attended. At this meeting, the board ratified the unofficial actions taken by the board at the May 1981 meeting. The board discussed the functions of the board and some of the members questioned whether there continues to be a public need for the board. The consensus of the members was that they would not resist the sunseting of the board.⁷

Conclusion

Our assessment of Chapter 448H, HRS, leads us to conclude that the public receives little additional protection from state licensing of elevator mechanics. The safety of elevators and related equipment is adequately ensured through other programs, such as the inspection and permit program under the DLIR. With its comprehensive authority and responsibility for elevator safety, the DLIR is in a better position than any licensing board to monitor elevator safety, to undertake programs for continuing public protection and to enforce any corrective measures that need to be taken.

Recommendation

We recommend that Chapter 448H, HRS, be allowed to expire as scheduled on December 31, 1983.

7. Minutes, Board of Elevator Mechanics, September 24, 1982.

APPENDIX
RESPONSES OF AFFECTED AGENCIES

COMMENTS ON AGENCY RESPONSES

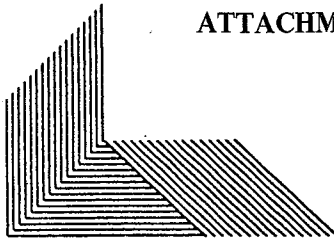
A preliminary draft of this Sunset Evaluation Report was transmitted on October 29, 1982, to the Elevator Mechanics Licensing Board and the Department of Commerce and Consumer Affairs for their review and comments. A copy of the transmittal letter to the board is included as Attachment 1 of this appendix. A similar letter was sent to the Department of Commerce and Consumer Affairs. The responses from the board and the department are included as Attachments 2 and 3.

The chairman of the Elevator Mechanics Licensing Board states that the sunset provisions should apply only to the board and that licensing of elevator mechanics should be continued under the Department of Commerce and Consumer Affairs. Our evaluation of the regulation of elevator mechanics concluded that continued licensing by the State is not necessary and that all of Chapter 448H should be sunsetted as scheduled.

The Department of Commerce and Consumer Affairs is in agreement with our analysis and evaluation.

ATTACHMENT 1

THE OFFICE OF THE AUDITOR
STATE OF HAWAII
465 S. KING STREET, RM. 500
HONOLULU, HAWAII 96813
(808) 548-2450



CLINTON T. TANIMURA
AUDITOR
RALPH W. KONDO
DEPUTY AUDITOR

October 29, 1982

Mr. Howard L. Farwell, Chairman
Elevator Mechanics Licensing Board
Department of Commerce and Consumer Affairs
State of Hawaii
Honolulu, Hawaii 96813

COPY

Dear Mr. Farwell:

Enclosed are seven preliminary copies, numbered 4 through 10, of our *Sunset Evaluation Report on Elevator Mechanics*. These copies are for review by you and other members of the board. This preliminary report has also been transmitted to Dr. Mary G. F. Bitterman, Director, Department of Commerce and Consumer Affairs.

The report contains our recommendation relating to the regulation of elevator mechanics. If you have any comments on our recommendation, we would appreciate receiving them by November 29, 1982. Any comments we receive will be included as part of the final report which will be submitted to the Legislature.

Since the report is not in final form and changes may possibly be made to it, access to this report should be restricted solely to board members and those officials whom you might wish to call upon to assist you in your response. We request that you exercise controls over access to the report and ensure that the report will not be reproduced. Should you require additional copies, please contact our office. Public release of the report will be made solely by our office and only after the report is published in its final form.

We appreciate the assistance and cooperation extended to us.

Sincerely,

Clinton T. Tanimura
Legislative Auditor

Enclosures

ATTACHMENT 2

GEORGE R. ARIYOSHI
GOVERNOR



JOSHUA C. AGSALUD
DIRECTOR

ROBERT C. GILKEY
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
677 ALA MOANA, SUITE 910
HONOLULU, HAWAII 96813

December 7, 1982

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OFF. OF THE AUDITOR
STATE OF HAWAII

Mr. Clinton T. Tanimura, Auditor
The Office of the Auditor
State of Hawaii
465 S. King Street Room 500
Honolulu, HI 96813

Dear Mr. Tanimura:

Please excuse the late receipt of my comments. I had intended that our departmental response would suffice but I understand none has been received by your office.

At the last meeting of the Elevator Mechanics Licensing Board on September 24, 1982, it was agreed that the board had been relatively inactive in the past few years. It was voted that the sunset provisions should become effective.

However, it was recommended that licensing of elevator mechanics should be continued by the Department of Commerce and Consumer Affairs. Technical assistance could be supplied by the Boiler and Elevator Inspection Bureau.

It is true that at the present time all elevator maintenance and installation work is being done by union personnel. However, there would be nothing to prevent a company with the appropriate license from hiring non union workers. This would be the most likely to occur in the servicing area where the competition is great. Most new construction is by the larger union shop elevator companies.

The supervising elevator inspector of the Boiler and Elevator Inspection Bureau is a member of the executive committee of the National Association of Elevator Safety Authorities (NAESA). At the national meetings, he has found that several jurisdictions not presently doing so are planning to introduce legislation requiring licensing of elevator mechanics. He did not learn of any jurisdiction dropping licensing requirements.

In view of the above, it is highly recommended that the licensing requirement not be terminated.

Sincerely yours,

Howard L. Farwell

Howard L. Farwell, Chairman
Elevator Mechanics Licensing Board

HLF:cs

ATTACHMENT 3

GEORGE R. ARIYOSHI
GOVERNOR



STATE OF HAWAII
OFFICE OF THE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
1010 RICHARDS STREET
P. O. BOX 541
HONOLULU, HAWAII 96809

MARY G. F. BITTERMAN
DIRECTOR
Commissioner of Securities
Bank Examiner

DONALD D.H. CHING
DEPUTY DIRECTOR

November 29, 1982

Honorable Clinton T. Tanimura
Legislative Auditor
State of Hawaii
465 South King Street, Room 500
Honolulu, Hawaii 96813

RECEIVED

Nov 30 12 35 PM '82

OFC. OF THE AUDITOR
STATE OF HAWAII

Dear Mr. Tanimura:

Thank you for the opportunity to comment on your
"Sunset Evaluation Report on Elevator Mechanics."

The Department of Commerce and Consumer Affairs
is in general agreement with your analysis and evaluation
of the Elevator Mechanics Licensing Board. You and your
staff should be commended for the accurate and thorough
assessment of the Board's activities.

Sincerely yours,

Mary G. F. Bitterman
Director