
Sunrise Analysis of the Industrial Hygiene, Safety, and Health Physics Professions

A Report to the
Governor
and the
Legislature of
the State of
Hawai'i

Report No. 08-10
November 2008



THE AUDITOR
STATE OF HAWAII

Office of the Auditor

The missions of the Office of the Auditor are assigned by the Hawai'i State Constitution (Article VII, Section 10). The primary mission is to conduct post audits of the transactions, accounts, programs, and performance of public agencies. A supplemental mission is to conduct such other investigations and prepare such additional reports as may be directed by the Legislature.

Under its assigned missions, the office conducts the following types of examinations:

1. Financial audits attest to the fairness of the financial statements of agencies. They examine the adequacy of the financial records and accounting and internal controls, and they determine the legality and propriety of expenditures.
2. Management audits, which are also referred to as performance audits, examine the effectiveness of programs or the efficiency of agencies or both. These audits are also called program audits, when they focus on whether programs are attaining the objectives and results expected of them, and operations audits, when they examine how well agencies are organized and managed and how efficiently they acquire and utilize resources.
3. Sunset evaluations evaluate new professional and occupational licensing programs to determine whether the programs should be terminated, continued, or modified. These evaluations are conducted in accordance with criteria established by statute.
4. Sunrise analyses are similar to sunset evaluations, but they apply to proposed rather than existing regulatory programs. Before a new professional and occupational licensing program can be enacted, the statutes require that the measure be analyzed by the Office of the Auditor as to its probable effects.
5. Health insurance analyses examine bills that propose to mandate certain health insurance benefits. Such bills cannot be enacted unless they are referred to the Office of the Auditor for an assessment of the social and financial impact of the proposed measure.
6. Analyses of proposed special funds and existing trust and revolving funds determine if proposals to establish these funds are existing funds meet legislative criteria.
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8. Fiscal accountability reports analyze expenditures by the state Department of Education in various areas.
9. Special studies respond to requests from both houses of the Legislature. The studies usually address specific problems for which the Legislature is seeking solutions.

Hawai'i's laws provide the Auditor with broad powers to examine all books, records, files, papers, and documents and all financial affairs of every agency. The Auditor also has the authority to summon persons to produce records and to question persons under oath. However, the Office of the Auditor exercises no control function, and its authority is limited to reviewing, evaluating, and reporting on its findings and recommendations to the Legislature and the Governor.



THE AUDITOR
STATE OF HAWAII
Kekuanao'a Building
465 S. King Street, Room 500
Honolulu, Hawai'i 96813

OVERVIEW

Sunrise Analysis of the Industrial Hygiene, Safety, and Health Physics Professions

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Summary

In Senate Concurrent Resolution No. 41, Senate Draft 1, the 2008 Legislature requested that the Auditor conduct a “sunrise” analysis of Senate Bill No. 2075, which proposes to regulate titles used by industrial hygiene, safety, and health physics professionals. The Hawai‘i Regulatory Reform Act (Chapter 26H, Hawai‘i Revised Statutes) requires such an analysis to ensure that new regulation is enacted only when reasonably necessary to protect the health, safety, and welfare of consumers of the services. The Auditor is also to examine the probable effects of the proposed regulation and assess alternative forms of regulation.

Industrial hygienists, health physicists, and safety professionals specialize in recognizing, evaluating, and controlling workplace hazards. They fall into the broad category of occupational health and safety professionals. While these occupations have much in common, they generally focus on different functions and are credentialed by different organizations. Their responsibilities vary depending on the workplace, industry, and types of hazards affecting employees. Some of the workplace hazards addressed by these professionals include mold abatement, chemical hazards, radiation hazards, asbestos and lead, physical hazards such as noise and extremes of temperature, and biological hazards such as bloodborne pathogens and ergonomic hazards. Each of the certifying agencies has specific academic, work experience, and examination requirements for achieving and maintaining certification.

Senate Bill No. 2075 seeks to limit the *use of seven specific titles* for purposes of identification, advertising, or representation to those who have achieved and maintained a current certification designation. These titles are: industrial hygienist, certified industrial hygienist, certified health physicist, registered radiation protection technologist, certified safety professional, construction health and safety technician, and occupational health and safety technologists. Hawai‘i has a total of 204 certified practitioners authorized to use the titles as described under Senate Bill No. 2075. This includes: 47 certified industrial hygienists, five certified health physicists, four registered radiation protection technologists, 48 certified safety professionals, 86 construction health and safety technicians, and 14 occupational health and safety technologists.

The proposal would not prevent unqualified persons from doing safety work – it would only prevent them from calling themselves certified if they had not received certification. With just over 200 practitioners holding the certifications and titles listed in the bill, misuse of titles is not an issue in Hawai‘i.



Senate Bill No. 2075 has little substance and its purpose is unclear. It does not add to public protections and may even have an adverse and confusing effect. No additional penalties or avenues of enforcement are provided in the bill. The general public is already protected by state agencies such as the Department of Labor and Industrial Relations, the Department of Health, and the Office of Consumer Protection and other state agencies. For example, the Hawai'i Occupational Safety and Health Division of the Department of Labor and Industrial Relations has procedures in place to protect workers from occupational hazards under Section 396-8, HRS. The Indoor and Radiological Health Branch of the Department of Health licenses qualified health and medical physicists to protect the public from environmental and medical hazards under Section 321-11, HRS.

We believe that Senate Bill No. 2075 should not be enacted because it does not meet the sunrise criteria requiring evidence of harm to consumers under Section 26H-2, HRS. The bill as proposed is largely a title protection measure and is not necessary to protect the consumer. The primary purpose for the proposal is to advance the interests of the professionals with the designated titles. There is no evidence that practitioners who misrepresent themselves as certified industrial hygienists or any of the other titles proposed for protection in Senate Bill No. 2075 have caused harm to the public.

Recommendations and Response

We recommend that Senate Bill No. 2075 not be enacted.

The Departments of Health and Labor and Industrial Relations opted not to provide a response.

Marion M. Higa
State Auditor
State of Hawai'i

Office of the Auditor
465 South King Street, Room 500
Honolulu, Hawai'i 96813
(808) 587-0800
FAX (808) 587-0830

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Governor
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Hawai'i

Conducted by

The Auditor
State of Hawai'i
and
Diana M. Chang and
Maia C. Rosen

Submitted by

THE AUDITOR
STATE OF HAWAI'I

Report No. 08-10
November 2008

Foreword

This “sunrise” report on industrial hygienists, health physicists, and safety professionals was prepared in response to a provision in the Hawaii Regulatory Licensing Reform Act, Chapter 26H, Hawaii Revised Statutes, that requires the Auditor to evaluate proposals to regulate previously unregulated professions or vocations.

In Senate Concurrent Resolution No. 41, Senate Draft 1 of the 2008 legislative session, the Legislature requested an analysis of Senate Bill No. 2075 that restricts the use of titles for industrial hygiene, safety and health physics professionals. This analysis, conducted by Diana M. Chang and Maia C. Rosen, presents our findings and recommendation on whether the proposed regulation complies with policies in the licensing reform law and whether a reasonable need exists to limit the use of specific professional titles to protect the health, safety and welfare of the public.

We wish to express our appreciation to the Departments of Commerce and Consumer Affairs, Health, and Labor and Industrial Relations, and other organizations and individuals whom we contacted during the course of the analysis.

Marion M. Higa
State Auditor

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Chapter 1

Introduction

This report responds to a “sunrise” provision of the Hawai‘i Regulatory Licensing Reform Act, Chapter 26H, Hawai‘i Revised Statutes (HRS). The sunrise provision requires that, prior to enactment, legislative bills proposing regulation of previously unregulated professions or vocations be referred to the State Auditor for analysis. The Auditor is to assess whether the proposed regulation is necessary to protect the health, safety, or welfare of consumers and is consistent with other regulatory policies in Chapter 26H, HRS. In addition, the Auditor is to examine the probable effects of the proposed regulation and assess alternative forms of regulation.

This report analyzes the proposed regulation of the “industrial hygiene, safety, and health physics professions” set forth in Senate Bill No. 2075 of the 2008 legislative session. The Legislature specifically requested an analysis of this proposal in Senate Concurrent Resolution No. 41, Senate Draft 1 of the 2008 legislative session.

Background on Industrial Hygienists and Like Professionals

Industrial hygienists, health physicists, and safety professionals specialize in recognizing, evaluating, and controlling workplace hazards. They fall into the broad category of occupational health and safety professionals. The three occupations have much in common, but they generally focus on different functions and are credentialed by different organizations. Their responsibilities also vary depending on the workplace, industry, and types of hazards affecting employees. To better understand issues relating to these professions, we provide some background on each field, its practice, regulation in other states, and the proposed regulation.

Industrial hygiene

The term industrial hygiene is used interchangeably with occupational hygiene, occupational safety, and industrial safety. Industrial hygienists also refer to their work as occupational and environmental health and safety.

Industrial hygiene is the discipline of anticipating, recognizing, evaluating, preventing, and controlling environmental factors or stresses in or from the workplace that may cause sickness, impaired health and well being, or significant discomfort among workers or the community. Examples of environmental factors include chemical hazards such as solvents, asbestos, and lead; physical hazards such as noise, vibration, and extremes of temperature and pressure; biological hazards such as

bloodborne pathogens, molds, etc.; and ergonomic hazards such as improperly designed tools, work areas, or work procedures. Industrial hygienists often use instruments and specialized equipment to evaluate hazards and specify methods to control the hazards, such as using a ventilation system or wearing protective equipment. While industrial hygienists usually are “generalists” with a wide base of knowledge and expertise, they also may specialize in specific areas like mold abatement, ergonomics, or radiation safety.

Industrial hygienists are generally knowledgeable in eight technical areas of practice. How they apply this knowledge differs widely based on the setting and their level of experience:

1. Basic sciences (chemistry, physics, biology, mathematics);
2. Occupational disease, illness, injury, and surveillance (biostatistics, epidemiology, toxicology);
3. Health hazards (ergonomics and physical, chemical, and biological stressors);
4. Work environments (indoor air, industrial processes);
5. Program management principles (investigation methods, ethics, risk communication, guidelines and standards, data management and integration, emergency response);
6. Evaluation practices (instrumentation, sampling methods/techniques, analytical chemistry);
7. Hazard controls (engineering, personal protective equipment, administrative); and
8. Community stressors (air pollution, hazardous waste).

Most industrial hygienists have academic backgrounds in science, engineering, or mathematics. Currently, five schools offer bachelor’s-level programs and 25 schools offer master’s-level programs that are accredited by the American Board of Engineering and Technology (ABET).

Originally, industrial hygienists worked primarily in factories and other industrial settings but as society has changed, so has the definition of industrial hygiene. Today, industrial hygienists can be found in almost every type of work setting: government, industry, insurance companies, mining companies, among consultants, and federal and state regulatory agencies. They also work in related fields, such as safety or

environmental compliance. Most industrial hygiene jobs are found in the industrialized and densely populated regions of the country.

Certified industrial hygienists

Senate Bill No. 2075 restricts the use of the title industrial hygienist as well as the title of certified industrial hygienist (CIH). Certified industrial hygienists are those who have been designated as certified by the American Board of Industrial Hygiene (ABIH) or another comparable certifying organization. The ABIH is a non-profit corporation established in 1960 and accredited by the American Board of Engineering and Technology (ABET). Individuals who meet the educational, experience, examination, and renewal requirements are certified by the ABIH.

Candidates for certification and examination must have a bachelor's degree from an accredited college or university in biology; chemistry; chemical, mechanical, or sanitary engineering; or physics; or they must have completed an ABET-accredited program in industrial hygiene or safety. They must complete 180 academic hours or 240 continuing education hours of specific industrial hygiene courses and have four years of broad-based, professional experience in the practice of industrial hygiene. Also required are professional references from their current supervisor and a CIH who is familiar with their industrial hygiene work.

A certified industrial hygienist must maintain active professional involvement by re-certification on a five-year cycle and satisfy continuing education requirements. Certification examinations by the ABIH are offered twice each year in the United States, and are also offered at locations outside the country, including Canada, Australia, and East Asia, among other locations. The designation is the most widely recognized industrial hygiene designation throughout the world. According to the American Board of Industrial Hygiene, as of August 31, 2008, there were 47 certified industrial hygienists in Hawai'i.

Health physicists

Health physicists also fall under the broad category of occupational health and safety specialists. Senate Bill No. 2075 defines health physics as the "science and art devoted to the anticipation, recognition, evaluation, and control of radioactive material releases and potential radiation hazards in or from the workplace" that may endanger the health and well being of workers or the general public. Health physicists also control the beneficial use of ionizing radiation for treating cancers and generating electrical power while protecting workers and the public from potential hazards.

The health physics field covers a variety of disciplines, including research, nuclear weapons, industry, education, environmental protection, and enforcement of government regulations.

- *Research health physicists* investigate ways in which radiation interacts with matter and living systems, environmental levels of radiation, and the effects of radiation on biological systems on Earth and in space.
- *Applied health physicists* advise and make recommendations on methods and equipment used in radiation work, and assist in designing facilities and new radiation-control programs.
- *Industrial power reactor health physicists* work at nuclear sites to maintain protection, make assessments of the environment, and ensure that the facility complies with federal regulations.
- *Medical health physicists* work wherever radiation equipment is used to diagnose and treat medical conditions. Most dental clinics have x-ray equipment. Almost every modern hospital today has radiation, nuclear medicine, and radiation therapy departments. Medical health physicists survey the radiation safety of equipment used, calibrate the equipment, monitor radiation exposure, and ensure that the facility complies with federal and state regulations. Medical health physicists also engage in diagnostic and therapeutic use of radioactive materials, fluoroscopy, mammography, and radiation control services.

Most health physicists have a broad academic background in areas such as physical science, engineering, mathematics, or biological sciences. According to the Health Physics Society's academic education committee, as of October 2007, 25 colleges and universities offered degrees or options in health physics. Of these, eight are recognized by the Accreditation Board for Engineering and Technology in health physics.

Senate Bill No. 2075 restricts the use of the title "certified health physicist" to those who have been designated as certified health physicists by the American Board of Health Physics (ABHP) or another comparable certifying organization. The board was formally established in 1960, based on recommendations from the Health Physics Society. The American Board of Health Physics develops standards and procedures for applicants, examines candidates, and issues written certificates to those who have satisfied the requirements for certification. In 2001, the ABHP certification program was accredited by the Council of Engineering and Scientific Specialty Boards.

Candidates for certification must have a bachelor's degree from an accredited college or university in the physical or biological sciences, engineering or mathematics, and at least six years of experience in health physics. At least three of the six years must have been in applied health physics. A candidate with an advanced degree in health physics may substitute the degree for two years of experience. Certified health physicists must renew their certification every four years as well as satisfy continuing education requirements.

As of February 20, 2008, there were five certified health physicists in the private sector in Hawai'i. Some health physicists are employed by the military at bases such as Pearl Harbor, but we have no information on their numbers.

The state Department of Health regulates health physicists and medical physicists under Section 321-11, HRS and Sections 11-45-1 to 11-45-241, Hawai'i Administrative Rules, entitled *Radiation Control*. The department's Indoor and Radiological Health Branch issues licenses to all facilities that purchase, acquire, or use any electronic products emitting ionizing radiation or non-fission radioactive materials. This includes such facilities as dentists' offices, hospitals, and some industrial sites.

The branch licenses both qualified health physicists and qualified medical physicists who are engaged in the business of selling, installing or providing health physics or medical physics services in the state. Qualified health physicist licenses are issued to those who have been certified by the American Board of Health Physics in the appropriate fields in which services are being provided. Qualified medical physicist licenses are issued to those who have been certified in an appropriate specialty by any of the following certifying agencies: the American Board of Radiology, the American Board of Medical Physics, the American Board of Science in Nuclear Medicine, or the Canadian College of Physicists in Medicine. Qualified medical physicists for mammography must be certified by the American Board of Radiology or the American Board of Medical Physics and meet federal mammography quality standards. All installations and inspections must be done under the supervision of a qualified medical physicist. About two or three people have licenses in both health physics and medical physics. The licensees generally have businesses that provide services contracted for by the government or private medical facilities. The department has also established standards for radiation protection.

Registered radiation protection technologist

The field of radiation technology emerged when the need for radiation safety became clear with the development of the Three Mile Island nuclear power plant in Pennsylvania. Radiation technologists work in nuclear facilities such as power plants, medical facilities, universities,

and in the military. They must have knowledge of federal and state regulations and the principles of radiation safety. They protect the radiation worker, the general public, and the environment from the effects of ionizing radiation. They handle radioactive materials, maintain radiation detection equipment, and conduct inspections, tests, and surveys to ensure that radiation doses do not exceed normal limits and are in compliance with regulations on the use of and exposure to radiation producing equipment. They may also assist in developing and implementing radiation safety programs and provide training in these programs.

Radiation protection technologists can become registered with the National Registry of Radiation Protection Technologists (NRRPT). The purpose of NRRPT is to promote the education and training of radiation protection technologists and the science of health physics. To become registered, an applicant must be at least 21 years of age, have a high school diploma or equivalent, a minimum of five years of experience, and pass the NRRPT's credentialing examination. The examination consists of 150 questions covering radiation protection, knowledge of accelerators, university and medical health physics programs, power reactors, radiological facilities, radioactive waste disposal, transportation of radioactive materials, and regulatory requirements.

According to the NRRPT, Hawai'i has only four registered radiation protection technologists.

Certified safety professional

Safety professionals, also known as safety and health professionals or occupational health and safety inspectors, focus on the broad spectrum of workplace hazards that can cause harm to people, property, and the environment. They provide technical assistance in identifying, evaluating, and controlling hazards by applying principles drawn from disciplines as diverse as engineering, education, psychology, physiology, enforcement, hygiene, health, physics, and management. Their specific roles and activities vary widely, depending on their education, experience and the types of organizations where they work. Most safety professionals are engaged in four primary functions:

1. Anticipate, identify and evaluate hazardous conditions and practices.
2. Develop hazard control designs, methods, procedures and programs.
3. Implement, administer and advise others on hazard control programs.
4. Measure, audit and evaluate the effectiveness of hazard control programs.

Most safety professionals have bachelor's or master's degrees. Typical work settings are manufacturing, insurance, risk management, government, education, consulting, construction, healthcare, engineering and design, waste management, petroleum, facilities management, retail, transportation and utilities. Within these contexts, safety professionals must adapt their functions to fit the mission and operations of their place of employment.

Although safety professionals have been in existence for more than a century, during the last 30 years the scope of safety practice has expanded into environmental protection, product safety, hazardous materials management, and designing safety into vehicles, highways, processing plants, and buildings. Globalization and threats from terrorism, pandemics, and natural disasters have made the safety industry more complex, so that today's safety professionals must be better qualified.

Senate Bill No. 2075 restricts the use of the title "certified safety professional" (CSP) to those who have been designated as a certified safety professional by the Board of Certified Safety Professionals (BCSP) or another comparable certifying organization. The BCSP, a non-profit corporation established in 1969, has certified approximately 20,000 individuals. There are currently 11,000 CSP holders.

Candidates for certification and examination must have an associate degree in safety and health or a bachelor's degree in any field from an accredited college or university recognized by the Council for Higher Education Accreditation or the U.S. Department of Education. They must also have four or more years of acceptable professional safety practice experience and pass the safety fundamentals and comprehensive practice examinations. A CSP must maintain active professional involvement by re-certification on a five-year cycle, satisfy continuing education requirements, and pay an annual fee. According to the BCSP, as of August 31, 2008, there were 48 certified safety professionals in Hawai'i.

***Occupational
health and safety
technologists and
construction health
and safety technicians***

Senate Bill No. 2075 also restricts the use of two very similar occupational titles: occupational health and safety technologist, and construction health and safety technician. These titles are awarded by the Council on Certification of Health, Environmental and Safety Technologists (CCHST). The CCHST began in 1985 as a joint venture of the American Board of Industrial Hygiene and the Board of Certified Safety Professionals. The stated purpose of the occupational

health and safety technologist and construction health and safety technologist programs is to:

- Offer recognition among safety and health practitioners;
- Demonstrate competence to employers and others;
- Increase employee confidence in occupational health and safety programs;
- Help improve company profitability through reduced incidents and losses; and
- Enhance the company image.

Qualifications for occupational health and safety technologist and construction health safety technologist titles are less stringent than for the certified industrial hygienist or the certified safety professional.

Occupational health and safety technologists

These technicians perform occupational health and safety activities as part of or in addition to their primary job functions. Some examples of occupational health and safety technologist (OHST) duties include:

- Assessing worksites to determine risks, potential hazards and controls;
- Evaluating risks and hazard control measures;
- Investigating incidents;
- Maintaining and evaluating incident and loss records; and
- Preparing emergency response plans.

Candidates must spend a minimum of 35 percent of the time in their job doing occupational health or safety work, perform occupational health or safety related duties, have five years of experience in occupational health or safety, and pass the OHST examination. College courses in health and safety or an associate degree or higher in certain disciplines can be substituted for all or some portion of the experience requirement. Students in associates or higher degree programs in occupational safety and health may sit for the examination during their last semester. In order to maintain certification, an OHST must participate in professional development activities, comply with a point accumulation program, and

report such activities every five years. They must also pay an annual renewal fee. The occupational health and safety technologist program is nationally accredited by the National Commission for Certifying Agencies. According to CCHEST, as of August 31, 2008, there were 14 occupational health and safety technologists in Hawai'i.

Construction health and safety technician

Construction health and safety technicians are typically employed either full or part time as safety and health specialists on construction job sites. Individuals may be responsible for safety and health on one or more projects or job sites. Employers may include general contractors, subcontractors, or firms involved in construction or construction safety.

Candidates must possess one of the following:

- High school diploma and qualification as an Occupational Safety and Health Administration authorized instructor;
- Forty hours of classroom training in construction safety and health;
- Three years of experience in a construction position;
- An associate degree or higher in safety and health; and
- At least nine semester hours or 14 quarter hours of college credit in safety and health courses.

They must also have one to three years of work experience in construction and pass the construction health and safety technician examination. Candidates may substitute college courses in health and safety or an associate degree or higher in certain disciplines for up to two years of the experience requirement. Students in associate or higher degree programs in occupational safety and health may sit for the examination during their last semester.

In order to maintain certification, a construction health and safety technician must participate in professional development activities, comply with a point accumulation program, and report such activities every five years. They must also pay an annual renewal fee. The construction health and safety technician certification program is nationally accredited by the National Commission for Certifying Agencies and recognized by the U.S. Naval Facilities Engineering Command and six states. According to CCHEST, as of August 31, 2008, there were 86 construction health and safety technicians in Hawai'i.

Regulation in Other States

Currently, 19 other states regulate some of the titles protected by Senate Bill No. 2075. These are shown in Exhibit 1.1. These states restrict the use of specified titles to those who have been credentialed by certain organizations. All of the 19 states restrict the use of the title certified industrial hygienist to those who have been certified by the American Board of Industrial Hygiene. Seven of the states regulate the title of certified safety professional. Only Georgia protects the title of certified health physicist.

The number of states that regulate the use of the title certified industrial hygienist results from a joint effort by the American Industrial Hygiene Association and the American Academy of Health Physics. The associations hope that regulation will increase the professional status and the name recognition of these occupations.

Proposal To Regulate

Senate Bill No. 2075 of the 2008 legislative session proposes to regulate the professions of industrial hygiene, safety, and health physics. The bill states that its purpose is to:

- Provide legal recognition to the professions of industrial hygiene, safety, and health physics; and
- Provide assurance to the public that individuals representing themselves as being involved in the professions of industrial hygiene, safety and health physics have met minimum qualifications, thereby protecting the public health and safety from harm.

The bill seeks to limit the use of seven specific titles for purposes of identification, advertising, or representation to those who have achieved and maintained a current certification designation. The titles are:

- Industrial Hygienist
- Certified Industrial Hygienist
- Certified Health Physicist
- Registered Radiation Protection Technologist
- Certified Safety Professional

Exhibit 1.1 States That Regulate Similar Titles*

State	Titles	Regulatory Agency	Enforcement
Alaska	IH, CIH	none	None
California	CIH	none	Unfair business practice
Colorado	CIH, IH	none	None
Connecticut	CIH, CSP, OHST	none	Fines
Florida	CIH, CSP, OHST, RRPT	none	Deceptive & unfair trade practice
Georgia	IH, CIH, CHP, HP, CSP, OHST, RRPT, CHST	none	Unfair business practice
Illinois	IH	Ill. Industrial Hygiene Exam. Board	Suspension, fines, misdemeanor
Indiana	IH, CIH	none	Misdemeanor
Minnesota	CIH, CSP, CHST, OHST	none	Civil action to enjoin
Nebraska	CIH	DHHS Regulation & Lic.	Civil penalty up to \$2000
Nevada	CIH, CSP, OHST, CSHM	none	Misdemeanor
New Jersey	CIH	none	None
North Carolina	CIH		Misdemeanor
Ohio	CIH, CSP	none	Misdemeanor
Oregon	CIH, CHST, CSP, OHST	none	None
S. Carolina	CIH, CSP	none	Misdemeanor, \$500-\$5000/violation
Tennessee	CIH	none	Civil penalty \$1000 for each violation
Texas	CIH	none	\$1000 civil penalty for each violation
Virginia	CIH, CSP, CHST, OHST	none	Action in circuit court to enjoin

* Most of these states also protect other occupational health and safety titles.

Titles:

CHST=Construction Health and Safety Technologist

CHP=Certified Health Physicist

CIH=Certified Industrial Hygienist

CSP=Certified Safety Professional

HP=Certified Health Physicist

IH=Industrial Hygienist

IHIT=Industrial Hygienist in Training

OHST=Occupational Health and Safety Technologist

RRPT=Registered Radiation Protection Technologist

Source: Office of the Auditor

- Construction Health and Safety Technician
- Occupational Health and Safety Technologist

Exhibit 1.2 shows the titles designated in Senate Bill No. 2075, the certifying body, and the academic and work experience requirements.

The bill also seeks to prohibit business entities from representing themselves as providing safety services furnished by any of the aforementioned certified professionals unless the services are provided by or under the supervision of a certified person. In addition, the bill states that no trademarked certification shall be used without authorization.

The impetus for Senate Bill No. 2075 came from the American Industrial Hygiene Association. The association has worked closely with other occupational health and safety agencies such as the American Society of Safety Engineers and the Health Physics Society to enact similar laws in other states.

Enforcement

Enforcement of this law is limited to the antitrust provisions of Section 480-2, HRS, covering unfair or deceptive trade practices. Complaints may be brought by a consumer, the attorney general or the director of the Office of Consumer Protection.

Exempted occupations

The bill broadly exempts:

- A person employed as an apprentice under the supervision of a certified associate industrial hygienist, certified industrial hygienist, certified safety professional, construction health and safety technician, occupational health and safety technologist, or certified health physicist;
- A student studying industrial hygiene, safety, or health physics engaging in supervised activities related to industrial hygiene or safety;
- Any person legally regulated in this state under any other licensing law from engaging in the activities permitted under the person's license; provided that the person does not represent oneself to the public as an industrial hygienist, certified industrial hygienist, certified safety professional, construction health and safety technician, occupational health and safety technologist, certified health physicist, or registered radiation protection technologist; or

Exhibit 1.2

Titles Designated in Senate Bill No. 2075

Title	Certifying Body	Academic Requirements	Experience Requirements	Exam
Industrial Hygienist (IH)	None			
Certified Industrial Hygienist (CIH)	American Board of Industrial Hygiene (ABIH)	4 year degree with 180 academic hours or 240 hrs. continuing education in specific IH courses.	4 years work experience.	CIH Cert. Exam
Certified Health Physicist (CHP)	American Board of Health Physicists (ABHP)	4 year degree. An advanced degree can be substituted for 2 years experience.	6 years work experience with at least 3 in applied health physics.	CHP Cert. Exam
Registered Radiation Protection Technologist (RRPT)	National Registry of Radiation Protection Technologists (NRRPT)	High school diploma or equivalent.	Minimum of 5 years of experience.	BRRPT's credentialing exam
Certified Safety Professional (CSP)	Board of Certified Safety Professionals (BCSP)	Associate degree in safety and health or a bachelor's degree in any field.	Acceptable professional safety experience meeting criteria for responsibility, focus, time, and breadth and depth of experience.	CSP Cert. exam
Construction Health and Safety Technician (CHST)	Council on Certification of Health, Environmental and Safety Technologists (CCHEST)	No degree required.	Flexible - part-time or full-time safety, health, and construction experience in addition to education and training.	CHST exam
Occupational Health and Safety Technologist (OHST)	(CCHEST)	No degree required.	5 years of experience in safety and health (at least 35% of job duties). Education and approved certificate programs can substitute for part or all of the experience.	OHST exam

Source: Office of the Auditor

- Individuals practicing within the scope of the meaning of industrial hygiene, safety, or health physics, so long as the individual does not use the title, initials, or represent themselves to the public as an industrial hygienist, certified industrial hygienist, certified safety professional, construction health and safety technician, occupational health and safety technologist, certified health physicist, or registered radiation protection technologist.

Testimony on Senate Bill No. 2075

The sole testimony in support of the proposal was the bill’s driving force, a representative from the American Industrial Hygiene Association. He argued that regulation would:

- Protect the public by making it more difficult for unqualified individuals to represent themselves to the public as qualified.
- Provide the public with some assurance that individuals have met minimum education/experience levels.
- Define and protect the titles by providing legal recognition for the professions.

Testimony against Senate Bill No. 2075 came from the state director of health. The director said that the “overall substance appears focused on what people call themselves, more than what they do.” The department already has a regulatory program for health and medical physicists. The health director was concerned that the bill would appear to ban state government regulation of health physicists and only allow the regulation of certain specific acts of health physicists. The health director believes that authority over health physicists should be maintained by the department in the interest of protecting providers, patients, and the general public.

Objectives

The objectives of this analysis were to:

1. Determine whether there is a reasonable need to regulate the titles relating to industrial hygiene, safety, and health physics to protect the health, safety, or welfare of the public.
2. Assess the probable effects of regulation.
3. Make recommendations, as appropriate, based on our findings.

Scope and Methodology

Our analysis reviewed the designated occupations and the nature of their practice. We assessed the need to protect these titles in the private sector. Our analysis did not analyze the use of these titles or the nature of these occupations in the federal government. For example, we did not review the job requirements for those who work at Pearl Harbor or the need for workplace protection at military facilities.

To assess the need for regulation, we applied the criteria set forth in Section 26H-2, HRS, of the Hawai'i Regulatory Licensing Reform Act. These criteria seek to ensure that regulation of occupations occurs only when needed to protect consumers. The primary purpose of regulation is not to benefit the practitioners of any occupation who may seek regulation for purposes other than that of consumer protection.

The consumer protection purposes of regulation are articulated in the policies in Section 26H-2, HRS. They state that:

- The State should regulate professions and vocations only where reasonably necessary to protect consumers;
- Regulation should protect the health, safety, and welfare of consumers and not the profession;
- Evidence of abuses should be given great weight in determining whether a reasonable need for regulation exists;
- Regulation should be avoided if it artificially increases the costs of goods and services to the consumer, unless the cost is exceeded by potential dangers to the consumer;
- Regulation should be eliminated when it has no further benefit to consumers;
- Regulation should not unreasonably restrict qualified persons from entering the profession; and
- Aggregate fees for regulation and licensure must not be less than the full costs of administering the program.

In assessing the need for Senate Bill No. 2075, we placed the burden of proof on proponents of the measure to demonstrate the need for regulation. We sought documented evidence that the incidence or severity of harm is sufficiently real or serious to warrant regulation. We evaluated their arguments and data against the above criteria. We examined whether alternatives (such as federal programs, other state

laws, marketplace constraints, private action, or supervision) exist that could provide adequate protection. In accordance with sunrise criteria, even if regulation *may* have *some* benefits, we recommend regulation only if it is *demonstrably* necessary to protect the public. We scrutinized the appropriateness of the regulatory approach taken by the proposed legislation.

To accomplish the objectives of our analysis, we searched the literature on industrial hygiene, safety, and health physics. Wherever possible, we conducted interviews with practitioners in these occupations. We interviewed staff at the Departments of Labor and Industrial Relations and Health. We conducted our assessment from June 2008 to September 2008.

Chapter 2

Regulation of Industrial Hygienists, Safety Professionals, and Health Physicists Is Not Warranted

This chapter presents the findings and recommendation of our analysis of the regulation of industrial hygienists, health physicists, and safety professionals proposed in Senate Bill No. 2075 of the 2008 legislative session. Our analysis concludes that the bill should not be enacted.

Summary of Findings

1. Regulation of titles used by industrial hygienists and like professionals does not meet the criteria in Section 26H-2, HRS, of the Hawai‘i Regulatory Licensing Reform Act. Because there is little evidence of harm, regulation is not needed to protect the public. Moreover, proposed title protections benefit the professions, not the public. We found no evidence that the mere use of titles causes harm to the public.
2. Numerous other protections for consumers already exist.
3. Provisions in Senate Bill No. 2075 are broad, amorphous, and confusing, and they may do more harm than good.

The Bill Does Not Meet Sunrise Criteria

The Sunrise Law, Section 26H-2, Hawai‘i Revised Statutes, states that regulation is justified only when reasonably necessary to protect consumers, that evidence of abuses by providers of the service should be given great weight in determining the need for regulation, and that regulation should protect the health, safety, and welfare of consumers and not the profession. Senate Bill No. 2075 does not meet these requirements.

Senate Bill No. 2075 proposes to regulate the use of the following seven titles:

- Industrial Hygienist
- Certified Industrial Hygienist
- Certified Health Physicist

- Registered Radiation Protection Technologist
- Certified Safety Professional
- Construction Health and Safety Technician
- Occupational Health and Safety Technician

It is important to note that Senate Bill No. 2075 regulates only the *use of titles* and not the work or practices encompassed by the above occupations. We found no evidence the mere use of these titles has caused any harm to the public. The state Office of Consumer Protection reports that it has had no reports of individuals misrepresenting themselves using the above titles or even complaints about the quality of work done by companies in these industries.

Some proponents of the bill gave anecdotal reports of shoddy work done by companies that advertise that they specialize in industrial hygiene work such as mold or asbestos removal, but none of these complaints could be substantiated. However, even if there were verified instances of substandard work, the proposed bill would not regulate the quality of any work or practice. The bill establishes no oversight body nor does it create any new enforcement measures.

Because of a concerted effort by the American Industrial Hygiene Association, some 19 states have provisions relating to the use of several of the titles proposed for protection in Senate Bill No. 2075. At the same time, almost all of the 19 states contain broad exemptions allowing persons to practice in the above fields providing they do not hold themselves out as being certified or registered. These exemptions make it clear that the regulations are not directed at any harmful practices or any dangers associated with these practices. They only address the titles practitioners use.

***Proposed title
protections benefit the
professions, not the
public***

The primary aim of the proposed regulation is to enhance public recognition of the designated professions. Beginning in the early 1990s, the American Industrial Hygiene Association began working with local chapters to enact legislation for title protection and professional recognition for the profession. The association acknowledges that the goal is primarily to elevate and advance the profession.

In his testimony on Senate Bill No. 2075, the director of governmental affairs of the American Industrial Hygiene Association stated that the purpose of the bill is to protect the designated titles and to provide legal protection for industrial hygiene, safety, and health physics professionals.

The director acknowledges that those without the designated titles or certifications may also be qualified, but that the titles certified by accredited bodies should be protected. Indeed, the certifying body for industrial hygienists, the American Board of Industrial Hygiene, has stated that many competent industrial hygienists have not sought certification. Since the issue is not that unqualified practitioners are putting the public at risk, there is no justification for the State to intervene and regulate.

Many Other Measures Protect the Public

The general public is already protected in many official and unofficial ways. These include the existing protections from state agencies such as the state Department of Labor and Industrial Relations, the state Department of Health, the state Office of Consumer Protection, and other state agencies.

Hawai'i has few practitioners with the designated titles

With only a few practitioners holding the certifications and titles listed in the bill, misuse of titles is not an issue in Hawai'i. In such a small community, bad or shoddy work is soon exposed, and occasionally, people are "blackballed." Some in the field characterize this process as "self cleansing." Exhibit 2.1 shows the numbers of practitioners having each of the designated titles. Hawai'i has fewer than 47 certified industrial hygienists. According to interviews, only a few are active in the private sector. Also, only a very limited number of certified health physicists and registered radiation protection technologists are active, and health physicist and radiation services are already regulated by the Department of Health.

Exhibit 2.1 Number of Hawai'i Practitioners With Designated Titles as of August 31, 2008

Title	Number in Hawai'i
Certified Industrial Hygienists	47
Certified Health Physicists	5 (as of 2/20/08)
Registered Radiation Protection Technologists	4
Certified Safety Professionals	48
Occupational Health and Safety Technician	14
Construction Health and Safety Technician	86

Sources: American Board of Industrial Hygiene; American Academy of Health Physics; National Registry of Radiation Protection Technologists; Board of Certified Safety Professionals; and the Council on Certification of Health, Environmental and Safety Technologists.

Hawai'i's occupational health and safety laws protect workers

The Department of Labor and Industrial Relations has procedures in place to protect workers from occupational hazards. Employees have a right to file workplace safety and health hazard complaints with the Hawai'i Occupational Safety and Health Division (HIOSH) under Section 396-8, HRS. In addition to investigating safety and health complaints covered under its program, HIOSH serves as a resource for workers and employers.

Employers generally contract with or engage the services of safety professionals to comply with occupational safety and health standards. According to HIOSH, an employer must provide a safe work environment, free from recognized hazards. The HIOSH regulates the process for compliance so employers must follow prescribed occupational safety and health standards whether or not they hire a certified individual.

Both the federal and state government will generally accept a non-certified individual to fulfill Occupational Safety and Health Administration's regulations or to fulfill the specific needs of an employer. More important than title or certification, the practitioner must be familiar with federal and state standards and protocols for abating and controlling each hazard. Potential harm to the public results from poor workmanship, bad business practices, or lack of competency in terms of qualifications, knowledge, and skills rather than practitioners' misrepresentation in terms of any of the seven specific titles.

Employers are also the cause of many of the problems in correcting workplace hazards. According to the Department of Labor and Industrial Relations, many employers pay insufficient attention to identifying the problems to be resolved and make their selections of the industrial hygienists to employ solely on the basis of cost. In the end, they may find that they have paid for work that was unnecessary or work that still resulted in noncompliance with HIOSH standards. The department has issued guidelines for employers on "Choosing the Right Professional to Handle Your Industrial Hygiene Job."

The Department of Health protects the public from environmental and medical hazards

The general public is protected from environmental and medical hazards by the Indoor and Radiological Health Branch of the state Department of Health. The branch is responsible for assessing, developing policies, and providing assurance in the areas of community noise control, radiation control, mechanical ventilation, indoor air quality, asbestos abatement, and lead-based paint abatement. The branch enforces maximum permissible noise levels, controls the release of radioactive materials, licenses all radiation facilities, and administers provisions relating to air quality, asbestos, and lead in paint.

The Department of Health is also responsible for protecting the public from radiation hazards. It has adopted rules relating to “Radiation Control,” in Title 11, Chapter 45, Hawai‘i Administrative Rules. The rules set minimum standards for all persons and facilities that receive, possess, transfer, own, or acquire any source of radiation, who install and service sources of radiation, or who provide radiation services. The department requires that the following sources of radiation be licensed: persons providing radiation services and persons who transport or deliver radioactive materials. Persons include medical, chiropractic, dental, podiatric, veterinary, radiation therapy, industrial radiography, all other radiation services and x-ray facilities.

Those who provide health and medical physics services must be “qualified” by the department. They must have at least one qualified health physicist who has been certified by the American Board of Health Physics in the appropriate specialty in which the services are being provided. The department also requires medical physicists for mammography to be certified by the American Board of Radiology or the American Board of Medical Physics. Licensees that provide medical physics services must have surveys done at least once a year by a qualified medical physicist.

Other state agencies also protect the public

Other states agencies have the option to ensure that practitioners are qualified to do the kinds of work described in Senate Bill No. 2075. For example, the Department of Accounting and General Services specifies that in certain contracts relating to asbestos, air monitoring, and inspections, work must be done in accordance with federal and state regulations, air quality be monitored throughout the project, and the project completion certificate must be signed by a certified industrial hygienist.

Remedies in Senate Bill No. 2075 already exist

Senate Bill No. 2075 provides no additional penalties or avenues of enforcement. It states that those who misrepresent themselves as having the titles in the bill will be subject to the unfair or deceptive trade practice provisions under Section 480-2, HRS. This offers no additional protection to consumers since practitioners who misrepresent themselves are already subject to the State’s deceptive trade practice provisions. Consumers, the attorney general or the director of the Office of Consumer Protection can bring a complaint or civil action in circuit court.

Senate Bill No. 2075 May Do More Harm Than Good

The bill may jeopardize the State's licensing program for qualified health physicists and qualified medical physicists

Senate Bill No. 2075 has little substance, and its purpose is unclear. It does not add to public protection and may have an adverse and confusing effect.

As noted earlier, the Department of Health has regulations for qualifying health physicists and medical physicists. These regulations seek to ensure that only those that the department has found to be qualified may provide services relating to radiation equipment. Senate Bill No. 2075 would confuse the issue of which of these designations would be qualified to perform a particular scope of practice since it protects only the title of health physicist and not that of medical physicists.

The director of health is clearly aware of this danger. She testified in opposition to the bill since it affects at least one of the professions that it regulates--the certified health physicists and medical physicists. She noted that the bill appeared to terminate the department's authority over the qualifications of health physicists. This meant that people could be free to practice health physics if they did not call themselves certified health physicists. She stated that:

As such, we recognize only board-certified health physicists as qualified to provide health physics services to radiation facilities in the State of Hawaii. The section 7 prohibition on page 15 may be read to ban state government of health physicists and only allow the regulation of certain specific acts of such health physicists. This is at best confusing. The authority over ionizing radiation control activities and resources, such as health physicists, should be maintained by the Department of Health in the interests of radiation protection for providers, patients, and the general public.

Titles may create confusion

Senate Bill No. 2075 protects a wide range of titles with broad and amorphous definitions. These broad definitions make title protection virtually meaningless. For example, the bill defines and restricts the use of the title "industrial hygienist." This is defined broadly as a person with a baccalaureate or graduate degree from an accredited college in industrial hygiene, biology, chemistry, engineering, physics or a closely related physical or biological science and has acquired competence in industrial hygiene. However, the title of industrial hygienist is not one that is granted by any accredited or nonaccredited body. The American Industrial Hygiene Association admits that it would be difficult to tell

individuals that they cannot practice as an industrial hygienist since the designation has no official status.

At the same time, Senate Bill No. 2075 broadly defines the designation of health physicist but restricts title protection only to the certified health physicist. The director of government affairs says the purpose of defining a title without restricting its use in the law is to give it some standing in the law so that it would be easier for future legislators to propose regulatory measures.

The titles listed in the bill cover such a broad range of practitioners that they may confuse consumers as to what certification means and what kinds of competencies they ensure. According to the American Industrial Hygiene Association, more than 350 titles are used in occupational health and safety. The American Association of Safety Engineers (AASE) notes this as one reason it does not support regulation for its members. It says that it has 32,000 members, and only 25 percent hold the certifications listed in the bill. The association's position paper has stated its opposition, to wit: "A process that assures SH&E (safety, health, and environmental) practitioner capability under state authority does not exist at this time. Voluntary SH&E certification systems have produced an estimated 320 different SH&E designations."

The association adds that "[a] possible 320 SH&E designations, with only a handful meeting widely accepted accreditation requirements, creates a confusing and even dangerous environment."

Most Hawai'i AASE members also fail to see a need for the law, particularly since the bill has no enforcement mechanism built in. In other industries, this type of bill results in more paperwork and added cost with little benefit to members.

Conclusion

We found no evidence that practitioners who misrepresent themselves as certified industrial hygienists or any of the other titles proposed for protection in Senate Bill No. 2075 have caused harm to the public. The primary purpose for the proposal is to advance the interests of the professionals with the designated titles. The bill is also broad, amorphous, and may do more harm than good. The Sunrise Law, Section 26H-2, HRS, states that regulation is justified only when reasonably necessary to protect consumers, that evidence of abuses by providers of the service should be given great weight in determining the need for regulation, and that regulation should protect the health, safety, and

welfare of consumers and not the profession. In this case we conclude the bill protects professionals using the seven designated titles, and therefore does not meet the requirements of the Sunrise Law.

Recommendation

We recommend that Senate Bill No. 2075 not be enacted.

Responses of the Affected Agencies

Comments on Agency Responses

On October 21, 2008 we submitted draft copies of this report to the Departments of Health and Labor and Industrial Relations, inasmuch as they already regulate related professions. Both departments opted not to provide responses. We did not request a comment from the Department of Commerce and Consumer Affairs as we usually do because it was not named as a proposed regulatory authority.

STATE OF HAWAII
OFFICE OF THE AUDITOR
465 S. King Street, Room 500
Honolulu, Hawaii 96813-2917



MARION M. HIGA
State Auditor

(808) 587-0800
FAX: (808) 587-0830

October 22, 2008

COPY

The Honorable Chiyome Leinaala Fukino
Director
Department of Health
Kinau Hale
1250 Punchbowl Street
Honolulu, Hawaii 96813

Dear Dr. Fukino:

Enclosed for your information are three copies, numbered 6 to 8, of our confidential draft report, *Sunrise Review of the Industrial Hygiene, Safety, and Health Physics Professions*. We ask that you telephone us by Friday, October 24, 2008, on whether or not you intend to comment on our recommendations. If you wish your comments to be included in the report, please submit them no later than Friday, October 31, 2008.

The Department of Labor and Industrial Relations, Governor, and presiding officers of the two houses of the Legislature have also been provided copies of this confidential draft report.

Since this report is not in final form and changes may be made to it, access to the report should be restricted to those assisting you in preparing your response. Public release of the report will be made solely by our office and only after the report is published in its final form.

Sincerely,

Marion M. Higa
State Auditor

Enclosures