

COLORADO DEPARTMENT OF REGULATORY AGENCIES
OFFICE OF POLICY AND RESEARCH

INDUSTRIAL HYGIENISTS
AND
SAFETY PROFESSIONALS

2001 SUNRISE REVIEW



STATE OF COLORADO

DEPARTMENT OF REGULATORY AGENCIES
Office of the Executive Director
M. Michael Cooke, Executive Director

1560 Broadway
Suite 1550
Denver, Colorado 80202
V/TDD (303) 894-7880
(303) 894-7855



Bill Owens
Governor

October 15, 2001

Members of the Colorado General Assembly
c/o the Office of Legislative Legal Services
State Capitol Building
Denver, Colorado 80203

Dear Members of the General Assembly:

The Colorado Department of Regulatory Agencies has completed its evaluation of the sunrise application for regulation of industrial hygienists and safety professionals and is pleased to submit this written report. The report is submitted pursuant to §24-34-104.1, Colorado Revised Statutes (C.R.S.), which provides that the Department of Regulatory Agencies shall conduct an analysis and evaluation of proposed regulation to determine whether the public needs, and would benefit from, the regulation.

The report discusses the question of whether there is a need for the regulation in order to protect the public from potential harm, whether regulation would serve to mitigate the potential harm, and whether the public can be adequately protected by other means in a more cost-effective manner.

Sincerely,

A handwritten signature in cursive script that reads "M. Michael Cooke".

M. Michael Cooke
Executive Director

Table of Contents

The Sunrise Process	1
<i>Background</i>	1
<i>Methodology</i>	1
Proposal for Regulation	2
<i>Profile of the Profession</i>	3
Summary of Current Regulation	9
<i>The Colorado Regulatory Environment</i>	9
<i>Federal Regulation</i>	9
<i>Regulation in Other States</i>	10
Analysis and Recommendations	12
<i>Public Harm</i>	12
<i>Need for Regulation</i>	14
<i>Alternatives to Regulation</i>	16
<i>Conclusion</i>	17

The Sunrise Process

Background

Colorado law, §24-34-104.1, Colorado Revised Statutes (C.R.S.), requires that individuals or groups proposing legislation to regulate any occupation or profession first submit information to the Department of Regulatory Agencies (DORA) for the purposes of a sunrise review. The intent of the law is to impose regulation on occupations and professions only when it is necessary to protect the public health, safety or welfare. DORA must evaluate the information submitted in order to prepare a report evaluating the justification for regulation based upon the criteria contained in the sunrise statute:

(I) Whether the unregulated practice of the occupation or profession clearly harms or endangers the health, safety, or welfare of the public, and whether the potential for the harm is easily recognizable and not remote or dependent upon tenuous argument;

(II) Whether the public needs, and can reasonably be expected to benefit from, an assurance of initial and continuing professional or occupational competence;

(III) Whether the public can be adequately protected by other means in a more cost-effective manner.

Any professional or occupational group or organization, any individual, or any other interested party may submit an application proposing the regulation of an unregulated occupation or profession. Applications must be accompanied by supporting signatures and must include a description of the proposed regulation and justification for such regulation. Applications received by July 1 must have a review completed by DORA by October 15 of the year following the year of submission.

Methodology

DORA reviewed the sunrise application submitted by industrial hygienists and safety professionals, and met with the applicants. In addition, we conducted literature and Internet searches, and spoke with representatives of the Colorado Department of Health and Environment, and the Attorney General's Consumer Protection Section. In the final stages of our review we spoke, and received opposition to the proposal for regulation from the Colorado Petroleum Association.

Proposal for Regulation

The Colorado Industrial Hygiene Council and the Colorado Chapter American Society of Safety Engineers have submitted a sunrise application to the Department of Regulatory Agencies for review in accordance with the provisions of §24-34-104.1, Colorado Revised Statutes (C.R.S.). The applicants seek title protection for the Certified Industrial Hygienist (CIH) and Certified Safety Professional (CSP) designations. The applicants originally sought title protection for six occupational titles by means of state sanctioned certification. These titles are awarded by nationally recognized certifying organizations, namely, the American Board of Industrial Hygiene and the Board of Certified Safety Professionals. The titles and designations in question are Certified Industrial Hygienist (CIH), Industrial Hygienist in Training (IHIT), Certified Safety Professional (CSP), Associate Safety Professional (ASP), Occupational Health and Safety Technologist (OHST), and Construction Health and Safety Technician (CHST).

The 2000 sunrise application contains very little information regarding the various apprenticeship categories that are being proposed for title protection. Issues of cost-effectiveness, professional competence, and public harm related to these training categories cannot be fully evaluated and would probably not rise to the status of established professions warranting review. In response to questions raised by DORA regarding these matters the applicants withdrew that portion of their proposal dealing with apprenticeship categories.¹ Consequently, this sunrise report addresses only those issues revolving around the “CIH” and “CSP” designations.

The primary rationale advanced for regulation by the applicants holds that when an individual or business cannot distinguish between professional individuals (i.e., those who have devoted a career to safety and occupational health) from those individuals who have little or no relevant experience or training, workers may be exposed to grave harm. In addition, employers may incur unnecessary costs and liability. Specifically, failure to properly address workplace health and safety issues can cause immediate and delayed health effects for workers (including death), and damage to property and equipment for employers. Employers also incur indirect costs, when health and safety issues are not properly addressed, due to lost workdays and equipment downtime.²

¹ Correspondence from Colorado Industrial Hygiene Council dated June 5, 2001.

² Sunrise Review Application, p. 8.

Moreover, it is claimed that the public will have the assurance that persons holding themselves out as industrial hygienists will possess specific academic credentials and experience, will have passed rigorous standardized examinations, and be required to continue their professional education.

Profile of the Profession

According to the applicants, industrial hygienists and safety professionals are qualified by training and experience to recognize, evaluate, and control workplace hazards that may harm workers, property, or the environment. An industrial hygienist deals primarily with hazards that may cause an adverse physiological response in the body, that is, occupational illnesses. On the other hand, a safety professional is principally concerned with hazards that cause physical trauma to the body, that is, occupational injuries. Examples of functions performed by industrial hygienist and safety professionals include:

- Assessing the risk and severity of workplace hazards by means of air monitoring, physical measurements, and laboratory analysis;
- Participating in the evaluation of new equipment and processes to identify and control potential hazards;
- Evaluating and recommending personal protective equipment (respirators, hearing protection, and confined space retrieval devices) to reduce the potential for injury or illness;
- Developing procedures and work practices to reduce the potential for injury or illness.³

The applicants estimate that there are 196 members of the Colorado section of the American Industrial Hygiene Association, while there are an estimated 320 members of the Board of Certified Safety Professionals in Colorado.

³ Sunrise Review Application “Introduction”, and pp. 3-4.

A sunrise application on behalf of industrial hygienists was submitted to DORA in 1996. This application did not result in regulation. In its current (2000) application the applicants state "we believe that we have addressed key objections raised by DORA in the previous review...."⁴ For example, the applicants furnished several cases studies of public harm with contact information for verification purposes.

There were approximately 5,700 certified industrial hygienists employed nationally in early 1998. It is estimated there were nearly three times as many employed who were not certified. Employment of these hygienists is expected to increase about as fast as the average for all occupations through the year 2006. Employment openings for hygienists will grow with the increasing complexity of manufacturing processes involving expanded use of high-energy forms, chemicals, and toxic substances. In addition, industry will be employing more industrial hygienists to combat rising insurance costs, expenses associated with protecting workers, and worker compensation cases.⁵

In 1996, 34,784 claims for workers' compensation were filed in Colorado, primarily for non-fatal injuries. The latest figure reported to the National Institute for Occupational Safety and Health (NIOSH) indicates that the annual cost to Colorado's private sector totaled \$888 million, however, only a fraction of health care costs and earnings lost through work injuries and illnesses are covered by workers' compensation. Chronic occupational illnesses like cancer and public sector employees are excluded from this figure. Colorado spent \$7.4 million in FY 96-97 to administer its workers' compensation program.

There were 2,119,630 individuals in the Colorado workforce in 1997. From 1984 to 1993, about 95 workers in Colorado died each year as a result of workplace injuries. The transportation, communication, and public utilities industries had the highest number of fatalities, followed by the construction service industries respectively. The average annual rate of fatal workplace injuries was 5.8 deaths per 100,000 workers, a rate above the national average of 5.0 deaths per 100,000 workers.⁶

⁴ Sunrise Review Application, p. 26.

⁵ The Detroit News, 1999 available on <http://library.northernlight.com/PN19990616060009131.html?cb=0&dx=3000&sc=0#doc>

⁶ The National Institute for Occupational Safety and Health, 1998 available on <http://www.cdc.gov/niosh/98co.html>

Another indication of the relative maturity of a particular profession is whether it has a recognized code of professional ethics. The applicants note that there are several organizations that provide guidance to industrial hygienists and safety professionals. Two of these organizations, the American Industrial Hygiene Association (AIHA) and American Society of Safety Engineers (ASSE) provide general membership services. Two additional organizations, the American Board of Industrial Hygiene (ABIH) and the Board of Certified Safety Professionals (BCSP) provide certification examinations and continuing education verification. All four organizations maintain a code of ethics. The code of ethics is used to guide the members of these organizations. There are disciplinary procedures for members who violate the code of ethics.⁷

The applicants provided copies of the relevant codes of ethics. These documents contain conventional ethical precepts, such as those dealing with conflict of interest, professional integrity and judgment, and limiting services to within one's sphere of competence. In addition, the health and well-being of people, and adherence to scientific principles are emphasized.

On the other hand, there are some counter indications regarding the status of industrial hygiene and safety professionals as mature and distinct professions. One means of estimating contrary evidence is to determine whether there is significant overlap between the functions of the profession seeking state regulation and the essential functions of related occupations. DORA asks applicants to "...indicate functions which are similar to those performed by other groups and identify those groups."⁸ In response to this question the applicants identified health physicists, sanitarians, certified hazardous materials managers, and occupational nurses as allied professions. These groups perform some tasks that are similar to industrial hygienists, but specialize, respectively, in radiation hazards assessment, food and water management, specific hazardous chemicals, and occupational disease. In addition, physicians and researchers specializing in occupational and environmental medicine, and industrial hygienists employed in the public sector may be included as occupations that provide similar or related services.

⁷ Sunrise Review Application, p. 9.

⁸ Question 4 of the standard sunrise application.

On balance, industrial hygienists and safety professionals appear to be well established and fairly distinct professions. Mature professions are more amenable to effective state regulation than those that have not achieved a similar status.

Initial and Continuing Practitioner Competence

According to information supplied by the applicants, training to ensure initial practitioner competence for industrial hygienists is readily available in Colorado. Due to the multi-disciplinary nature of the profession, most of the degree-granting institutions within the state may be utilized to obtain entry level qualifications. Table 1 below lists the institutions and the type of programs that are available.

The institutions and associated programs in Table 1 cover a great range of prices. The cost of completing a program that will prepare students for entry into industrial hygiene is similar to any other four-year degree at one of the Colorado institutions of higher education.

Table 1

Colorado Institutions and Programs for Industrial Hygienists

Institution	Programs
Colorado State University	Industrial hygiene, chemistry, physics, biology, chemical, mechanical, or sanitary engineering
University Of Colorado at Boulder, Colorado Springs, & Denver	Chemistry, physics, biology, chemical, mechanical, or sanitary engineering.
Colorado School of Mines	Chemistry, physics, chemical, or mechanical engineering.
Western State College of Colorado	Physics, biology, or chemistry
Mesa State College	Physics, biology, or chemistry
Ft. Lewis College	Physics, biology, or chemistry
Adam State College	Physics, biology, or chemistry
Metropolitan State College	Physics, biology, or chemistry

Upon completion of a bachelor's degree from an accredited institution, candidates may pursue American Board of Industrial Hygiene (ABIH) certification. In order to sit for the Certified Industrial Hygienist (CIH) Core examination, candidates must meet the educational and experience requirements set by ABIH. The educational requirement is graduation from an accredited college or university acceptable to the board with a bachelor's degree in industrial hygiene, chemistry, biology, physics, or chemical, mechanical, or sanitary engineering (the board may consider other bachelor's degrees based on their science content). The experience requirement is one year of full-time employment in the professional practice of industrial hygiene, which has to be completed after the educational requirement. A graduate degree in industrial hygiene may be substituted for the experience requirement (one year for masters, two years for doctorate).

Upon passing the Core examination, candidates may use the "Industrial Hygienist in Training" designation, or its abbreviation, "IHIT," to denote progress toward the next stage of certification, which is the Certified Industrial Hygienist (CIH) designation.

In order to sit for the Comprehensive Practice or Chemical Practice examination, candidates must meet the above educational requirements, and have five years of full-time experience in the professional practice of industrial hygiene. Experience is evaluated according to the following criteria: independence of the candidate's actions, complexity of work requirements, level of interaction, and responsibility for work outcome. The experience must also be broad in scope, involving the anticipation, recognition, evaluation, control and management of chemical, physical, biological, or ergonomic hazards. Once a candidate has satisfied the requirements of the Core examination and either the Comprehensive Practice or Chemical Practice examination, they may use the designation "Certified Industrial Hygienist" or "CIH."

Finally, the Certified Industrial Hygienist must meet the requirements of the certification maintenance program every five years. The purpose of this program is to ensure that active industrial hygienists continue to develop and enhance their professional knowledge and skills for the duration of their careers. The certification maintenance program awards points for continuing education, professional association membership, continued employment in the industrial hygiene field, and other activities.⁹

The NIOSH also contributes to continued practitioner competence by funding training programs and other professional development. For the period 1992 through 1996, thirty-two individuals graduated from NIOSH supported training programs, and 6,087 individuals received continuing education. NIOSH funds Colorado State University to train industrial hygienists and has the only Ph.D. program in the Rocky Mountain region (four graduates per year). NIOSH also funds the University of Colorado Health Science Center and the National Jewish Center for Immunology and Respiratory Medicine to train physicians in occupational and environmental medicine and the Colorado Carpenters' statewide occupational safety and health training program.¹⁰

In conclusion, there appear to be adequate educational resources for the training of qualified industrial hygienists and safety professionals in Colorado. Furthermore, the professional development of practitioners is promoted by the continuing education requirements of well-established private organizations, as well as market forces which dictate that industrial hygienists and safety professionals stay current with technological and other developments. The combination of these factors helps to ensure the quality of occupational health and safety services that are available to Colorado consumers.

⁹ Sunrise Review Application pp. 19-22.

¹⁰ The National Institute for Occupational Safety and Health, 1998 available on <http://www.cdc.gov/niosh/98co.html>

Summary of Current Regulation

The Colorado Regulatory Environment

Section 24-30-1402(1) of the Colorado Revised Statutes defines a "certified industrial hygienist" as an individual that is certified by the American board of industrial hygiene or its successor. "Industrial hygienist" means an individual who has obtained a baccalaureate or graduate degree in industrial hygiene, biology, chemistry, engineering, physics, or a closely related physical or biological science from an accredited college or university. The statute goes on to identify the necessary competencies as including the ability to anticipate, recognize, evaluate, and control the environmental factors and stresses associated with work and work operations, and knowledge regarding their effects on individuals and their well-being. Clearly, the state of Colorado as a purchaser of professional services recognizes industrial hygienists as a distinct occupational group. We are not aware of similar acknowledgment in the Colorado Revised Statutes for safety professionals.

Federal Regulation

The Occupational Safety and Health Administration (OSHA) is the federal agency with primary responsibility for protecting workplace safety and health. Three other agencies, the Environmental Protection Agency (EPA), Bureau of Alcohol, Tobacco and Firearms (ATF), and the Chemical Safety and Hazard Investigation Board (CSB) are responsible for, or perform functions that have an impact on workplace safety.¹¹

As the principal federal agency charged with protecting workers, OSHA's mission is to save lives, prevent injuries and protect the health of America's workers through enforcement of the Occupational Safety and Health Act of 1970. OSHA and its state partners have approximately 2,100 inspectors, plus complaint discrimination investigators, engineers, physicians, educators, standards writers, and other technical and support personnel distributed throughout the country. Staff establish and enforce protective standards, and reach out to employers and employees through technical assistance and consultation programs. Nearly

¹¹ United States General Accounting Office, October, 2000. "Worker Protection: Better Coordination Can Improve Safety at Hazardous Material Facilities." (GAO-01-62).

every working person comes under OSHA's jurisdiction (except miners, transportation workers, the self-employed, and many public sector employees). Other beneficiaries of OSHA services include the academic community, government personnel, lawyers, journalists, and occupational safety and health professionals.¹²

Regulation in Other States

The Occupational Safety and Health Act of 1970 authorizes states to establish their own safety and health programs. Currently, twenty-three states operate state OSHA programs covering both private and public sector workers.¹³ State OSHA programs must be at least as rigorous as the federal program and provide similar protections for workers. Some states set their own standards while others adopt existing federal rules. A state must conduct inspections to enforce its standards, cover state and local government employees, and operate occupational safety and health training and education programs. Most states also provide free on-site consultation to help employers identify and correct workplace hazards. OSHA approves and monitors state plans and provides up to 50 percent of an approved plan's operating costs. Colorado does not have a state OSHA plan.

According to information provided by the applicants, 15 states have chosen to enact some sort of regulation concerning industrial hygienists and safety professionals. The applicants state that "title protection is so important that 15 states have already enacted laws to protect the public and improve the overall quality of industrial hygiene and safety services in their states."¹⁴ It is not clear, however, from the information provided whether "title protection" is an accurate description across states, and whether the term is substantially equivalent to certification.

¹² Occupational Safety and Health Administration available on <http://www.osha.gov/oshinfo/mission.html>

¹³ Alaska, Arizona, California, Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New Mexico, North Carolina, Oregon, South Carolina, Tennessee, Utah, Vermont, Virginia, Washington, and Wyoming. In addition, Connecticut and New York have programs that cover state and local government employees only.

¹⁴ These states are: Alaska, California, Connecticut, Illinois, Florida, Indiana, Minnesota, New Jersey, Nebraska, North Carolina, Oregon, Ohio, Nevada, Tennessee and Texas.

For example, the regulation in California is characterized as “title definition” while in Florida it is not clear that title protection applies beyond asbestos abatement work.

Illinois is the one state that licenses industrial hygienists yet the Industrial Hygienists Licensure Act of that state does not prohibit the practice of nonregulated professions whose practitioners are engaged in the delivery of industrial hygiene services as long as these practitioners do not represent themselves as, or use the title of “licensed industrial hygienist.”¹⁵ It is also worth noting that the Illinois statute only defines the term “certified industrial hygienist.” Judging by this set of information, it would appear that title protection was the intent of this legislation given the generic use of the term “licensure.”

In short, in at least one state licensure provides title protection without clearly addressing scope of practice issues, while in several states it is not readily apparent what public safety benefits title protection confers.

¹⁵ 225 ILCS 52/20 (1).

Analysis and Recommendations

The sunrise criteria are very clear and specific regarding justification for the creation of a new regulatory program. The burden is upon the applicant to document through the application process that the occupation or profession being considered meets all three criteria.

Public Harm

The first sunrise criterion asks:

Whether the unregulated practice of the occupation or profession clearly harms or endangers the health, safety, or welfare of the public, and whether the potential for the harm is easily recognizable and not remote or dependent upon tenuous argument.

Since 1993, The National Institute for Occupational Safety and Health (NIOSH) has responded to 99 requests for evaluation of a variety of Colorado work settings. For example, in 1996 NIOSH responded to complaints at the Denver International Airport (DIA) and The National Western Stock Show. In the DIA case, NIOSH found that there was no hazard from overexposure to de-icing fluid used on aircraft, but emphasized the importance of using protective clothing. The Stock Show complaint involved exposure to carbon monoxide, carbon dioxide, dust, silica, and bioaerosols. High levels of carbon dioxide and airborne biological materials were indeed observed throughout the complex. As a result, NIOSH recommended increased ventilation and frequent cleaning of animal stalls to reduce levels of dust and bioaerosols.¹⁶

The Consumer Protection Section of the Office of the Attorney General was contacted by telephone in connection with this sunrise review. A representative of that office informed us that there were “virtually no complaints” regarding this occupational group. The same representative suggested that we speak to someone at the Colorado Department of Health and Environment. We followed up with a representative of that department who informed us that the department employs industrial hygienists.

¹⁶ The National Institute for Occupational Safety and Health, 1998 available on <http://www.cdc.gov/niosh/98co.html>

To illustrate the potential for public harm, the applicants furnished the following matrix reproduced as Table 2 below.

Table 2

Possible Outcomes of Incorrectly Identified Hazards

Example Industrial Hygiene or Safety Professional Service	Potential Human Harm and Suffering
Bottling noise level	Profound worker hearing loss; functional deafness; diminished communication capacity.
Working at heights - fall protection	Loss of life; serious injury to worker and others.
Exposure to hazardous chemicals such as organic solvents and lead	Damage to major organs (kidney, lungs, heart); cancer; damage to fetuses; damage to reproductive systems; central nervous system; chronic illness; death
Handling mercury in a school laboratory	Serious health risks to children and teachers which may include mental impairment and nervous system damage.
Calculating load limits for cranes	Life-threatening injury or death to workers; catastrophic property damage; danger to public.
Ergonomic risk in assembly operations	Debilitating and permanent injuries that may cause constant pain and may limit ability to earn a living.
Transportation safety management	Fatal or serious injury to the worker and the public.

According to the applicants, the examples cited above are based on real incidents in Colorado, and are meant to be indicative of what would happen if workplace hazards are not properly identified.¹⁷

¹⁷ Sunrise Review Application, p. 6.

In summary, a potential for public harm exists in the unregulated practice of Colorado industrial hygienists and safety professionals, but the extent of this potential harm is ameliorated to a considerable degree by federal and state programs, and by market forces such as consumer choice and the reputation of practitioners.

Need for Regulation

The second sunrise criterion asks:

Whether the public needs, and can be reasonably expected to benefit from an assurance of initial and continuing professional or occupational competence.

The Federal Trade Commission (FTC) enforces a variety of federal antitrust and consumer protection laws. FTC seeks to ensure that the nation's markets function competitively, and are free of undue restrictions. FTC also works to increase the efficiency of marketplace mechanisms by eliminating acts or practices that are unfair or deceptive. In general, FTC's efforts are directed toward stopping or preventing actions that threaten consumers' opportunities to exercise informed choice. In addition to carrying out its statutory enforcement responsibilities, FTC engages in other activities, such as consumer education. The FTC is one of several means of public protection which may be brought to bear on unscrupulous industrial hygienists and safety professionals.

Another avenue of redress is the Colorado Consumer Protection Act. This law prohibits individuals from misrepresenting their certification, abilities, and associations, and making false or misleading statements concerning the price of goods, services, or property. In addition, §6-1-707(1)(a)(I), C.R.S., prohibits an individual from claiming "either orally or in writing, to possess either an academic degree or an honorary degree of the title associated with said degree, unless the person has, in fact, been awarded said degree." While this Act does not prevent individuals from performing industrial hygiene work, it does prohibit individuals from claiming that they have education or background that they do not possess. An individual who misrepresents his or her qualifications may be in violation of this Act.¹⁸

¹⁸ § 6-1-105(1)(b), (c), (e) and (l), C.R.S.

The applicants argue that for purposes of “title protection” the Colorado Consumer Protection Act does not provide an effective deterrent to false claims of certification. Four points are offered in support of this position. Perhaps the most important contention is that an individual consumer must bring a private suit under the Act. In all likelihood, it is argued, such suits will be limited to cases of immediate and egregious harm due to the legal costs involved.¹⁹

On the other hand, the type of state certification that the applicants envision is not the only means by which to achieve title protection. Under the miscellaneous services provision of Article 70 of Title 7 C.R.S., the Colorado Industrial Hygiene Council and the Colorado Chapter of the American Society of Safety Engineers can apply for trademark protection of specific professional titles. “Trademark” means any word, name, symbol, or device or any combination thereof adopted and used by a person to identify goods made or sold or services rendered by him and to distinguish them from goods made or sold or services rendered by others.” For purposes of the article, a trademark is “used” when it is placed in any manner on goods or their containers, used in association with the sale or distribution of goods, or used in connection with services rendered.²⁰ Infringement of trademark rights can lead to civil action when any person uses the trademark without the consent of the registrant in a way which is likely to cause confusion, mistake, or deception as to the source or origin of such services.²¹

Finally, there are several private sector organizations that provide guidance to industrial hygienists and safety professionals. Two of these organizations, the American Industrial Hygiene Association (AIHA) and the American Society of Safety Engineers (ASSE) respond to complaints from the public regarding association members. For example, when ABIH becomes aware that someone is falsely claiming to be a Certified Industrial Hygienist (CIH), a written notice is sent to the alleged offender. This correspondence demands that the person cease and desist using the CIH title and to provide an explanation for the conduct in question. If a satisfactory response is not received, the ABIH board notifies the person's employer.

¹⁹ Sunrise Review Application, p.10.

²⁰ § 7-70-101 (4), C.R.S.

²¹ § 7-70-111 1(a), C.R.S.

According to the applicants, however, this remedy is inadequate. They argue that while ABIH has censure authority over members, it has no authority to deal with non-members who misrepresent their credentials. The applicants state:

since the ABIH has no legal standing within a state, any punitive action depends [on] the willingness of state officials to prosecute. In states without a clear title protection law, the likelihood of successful prosecution is remote. Additionally, ABIH has limited resources to support the investigation of such cases. Sending investigators to the state involved is prohibitively expensive...²²

In summary, there are several alternative means of public protection outside of occupational regulation that are more cost effective than state certification for industrial hygienists and safety professionals. Since any regulatory program entails administrative or enforcement costs, or both, the difference between what the applicants propose and existing remedies amounts to the difference in cost between having a standing program, as the applicants propose, as opposed to case by case resolution as is currently available.

Alternatives to Regulation

The third sunrise criterion asks:

Whether the public can be adequately protected by other means in a more cost-effective manner.

As noted earlier in this sunrise review, a potential for public harm exists in the unregulated practice of industrial hygiene and safety engineering. What is more, this potential harm arises in the realm of public health, which is arguably more important than other areas of potential harm, such as pecuniary damage. The level of potential public harm is ameliorated to a considerable degree, however, by governmental programs, private sanctions, the relatively small number of practitioners, and market forces.

²² Sunrise review application p. 9.

There are three levels of state regulation that may be applied with respect to this sunrise application. Registration in its pure form is the lowest level of state regulation. Regarding a state administered registration scheme, the applicants note that “for those who are certified by the BCSP or ABIH, registration is an exercise in redundancy that provides no added value to the state.”²³ We concur.

The applicants seek title protection for two occupational titles by means of state sanctioned certification. As noted earlier, however, there are four private organizations that provide guidance to industrial hygienists and safety professionals. Two of these organizations, the American Board of Industrial Hygiene (ABIH) and the Board of Certified Safety Professionals (BCSP) provide certification examinations and continuing education verification. All four organizations maintain a code of ethics. There are disciplinary procedures for members who violate the code of ethics. In short, there is an elaborate and professional system of private certification in place. We apply the same logic as above, and conclude that state certification would be an exercise in redundancy.

Finally, state licensing is the most rigorous form of regulation. The applicants do not seek licensing. More importantly, an underlying rationale for this type of regulatory program has not been presented by the applicants.

Conclusion

Given the relatively small size of these occupational groups, a standing program of certification or licensure would not be cost-effective as the main avenue of redress in light of alternative means of public protection.

²³ Sunrise Review Application, p. 11.

The applicants have not established the need for a state sanctioned certification program given the elaborate and professional system of private certification that already exists for industrial hygienists and safety professionals. State certification for these occupational groups would be an exercise in redundancy that provides no significant public protection value. Consequently, regulation is not called for on the basis of this application and in accordance with the sunrise criteria set out in §24-34-104.1, C.R.S.

The sunrise application under review in this report is the second submitted by industrial hygienists and the first by safety professionals. Although these two occupational groups are interrelated, they are distinct from one another as evidenced by the existence of separate professional associations and oversight boards. Consequently, one policy option for the General Assembly is to separate in its deliberations industrial hygienists from safety professionals.

Recommendation 1 - The General Assembly should not regulate industrial hygienists.

Recommendation 2 - The General Assembly should not regulate safety professionals.