



AMERICAN SOCIETY OF  
SAFETY PROFESSIONALS

February 20, 2026

The U.S. Department of Energy (DOE)  
Office of Nuclear Energy  
1000 Independence Ave SW  
Washington, DC 20585  
U.S. Department of Energy

**Re: Proposed Rule – Worker Safety and Health Requirements to Support Reform of Nuclear Reactor Testing 10 CFR Part 851  
Docket No. DOE–HQ–2025–0243**

Dear Department of Energy Representatives:

The American Society of Safety Professionals (ASSP), representing more than 35,000 environmental health and safety (EHS) professionals, appreciates the opportunity to comment on the proposed revisions to 10 CFR Part 851 (Docket No. DOE–HQ–2025–0243; RIN 1901–AB74). While ASSP supports administrative modernization, we strongly oppose the categorical removal of scientifically validated consensus standards and structured program elements without the implementation of equivalent or superior benchmarks to ensure contractor safety.

Our specific concerns and recommendations are detailed below:

**I. Role of Voluntary National Consensus Standards**

ASSP has long supported the appropriate use of voluntary national consensus standards in occupational safety and health regulation as addressed in our position on this issue. [Appendix]. As stated in ASSP’s Board-approved position statement:

*“ASSP supports the increased use of consensus standards in the formulation of legislation and regulation for occupational safety and health. Governmental agencies... should be encouraged to use these consensus standards as they provide an efficient/effective alternative to traditional public sector rule making.”*

ASSP believes it is important to comment on this statement in the announcement from the Federal Register as a key issue and concern for the Society:

*“...Section 851.46 also would exclude the following standards: American Conference of Governmental Industrial Hygienists (ACGIH®), Threshold Limit Values for Chemical*



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*Substances and Physical Agents and Biological Exposure Indices (2016); American National Standards Institute (ANSI/ASSE) Z88.2, “American National Standard Practices for Respiratory Protection” (2015); ANSI Z49.1, “Safety in Welding, Cutting and Allied Processes,” sections 4.3 and E4.3 (2012); the requirement in § 851.24 for a structured approach for worker safety and health program functional areas; and materials incorporated by reference in § 851.27. DOE makes this proposal **because those standards are overly conservative, as compared to Occupational Safety and Health Administration (OSHA) requirements (e.g., 29 CFR parts 1910 and 1926), and impose unnecessary administrative and operational burdens to contractors.** The Threshold Limit Values (TLVs) referenced previously lead contractors to take excessive precautions or require personal protective equipment (PPE) when doing so would not be required for industry. For example, TLVs for cold stress require that special protection of the hands be used if fine work is to be performed with bare hands for more than 10 to 20 minutes in an environment below 60.8 degrees Fahrenheit. Special protection includes warm air jets, radiant heaters, or contact warm plates. However, the temperatures requiring controls noted in the TLV are common working, almost every day, temperatures at Idaho National Laboratory and local workers are acclimated to working in those conditions. Thus, the required special protections are neither feasible nor reasonable at INL...”*

The Society strongly disagrees with this statement and the DOE intent to remove these applicable voluntary national consensus standards from the existing rule. The U.S. Department of Energy needs to revise the rule to include the most current versions of the standard.

The OSHA respiratory protection standard[s] have not been significantly changed in decades, [circa 1998]. This is the primary reason why the consensus standards were included in the first place, which is to protect workers from emerging hazards and exposures. We are concerned that the DOE approach is to fall back on federal standards, decades old, with the contention that the cited voluntary consensus standards are too onerous. We contend this is poor public policy not backed by science and/or data.

Federal policy under the National Technology Transfer and Advancement Act (NTTAA) and OMB Circular A-119 explicitly encourages agencies to rely on voluntary consensus standards. These standards are essential because they reflect balanced stakeholder input and are updated frequently to keep pace with evolving science—unlike many static federal regulations. The Department of Energy has not made its case to discontinue use of the applicable consensus standards based on our review of the announcement in the Federal Register. In fact, we are concerned that the positions of the DOE will reverse many of the occupational safety and health advances we have seen over decades of planning and implementation.



Removing these references without identifying current benchmarks creates a regulatory vacuum that introduces unacceptable variability in worker protection. ASSP asserts that any transition in policy must maintain technical rigor to preserve confidence in DOE worker safety programs.

### ANSI/ASSE Z88.2 Recognition

The DOE is trying to make the case that the Z88.2 Standard is too onerous for contractors to implement in nuclear settings. We disagree with this contention, and our data and experience indicate the direct opposite.

It is important to note that ASSE/ASSP was the secretariat of the Z88 Committee during revision of the Z88.2 Standard. The committee consisted of a balanced group of stakeholders working to revise a standard that would lead to enhanced respiratory protection of workers in different environments, including the nuclear applications covered by this proposal. It is important to note that the U.S. Department of Energy was a member of the Z88 Committee during creation of Z88.2. The DOE voted in favor of the standard and was instrumental in its development. The DOE never raised any concern with implementation of the standard or impact on contractors during development of the standard and its subsequent use for the past decade.

Our Z88.2 Data:

- ✓ ASSE/ASSP sold or distributed thousands of Z88.2 and Z88 Standards.
- ✓ We have not received one documented comment or concern of the standard being too onerous for implementation by contractors.
- ✓ ASSE/ASSP did a survey on usability of the Z88 Standards, which more than supported our contention that the standards are effective and efficient.
- ✓ Purchasers and users of the Z88.2 Standard have been outspoken in support of the standard.

ASSP Request: If the DOE has any data supporting the proposed removal of Z88.2 standard for being too onerous on contractors, we would request to see it.

Key Differences Between OSHA and ANSI/ASSE Z88.2

Oxygen-Deficient Atmospheres





- OSHA: Defines oxygen-deficient atmospheres as below 19.5% oxygen by volume.
- ANSI Z88.2: Uses a more impactful approach based on the partial pressure of oxygen rather than just percentage. At high altitudes, ANSI Z88.2 may classify atmospheres as immediately dangerous to life or health (IDLH) when OSHA does not.

### Hazard Assessment and Selection

- OSHA: Generally, requires a hazard assessment to determine the appropriate respirator, leaving some discretion to the employer.
- ANSI Z88.2: Often provides more detailed, specific recommendations for selecting respirators based on the specific type of contaminants and concentrations. This would be significant for working environments such as nuclear.

### Assigned Protection Factors (APFs)

- OSHA: Published its own legally enforceable APF table in 2006, which closely follows, but is not always identical to, older ANSI standards.
- ANSI Z88.2 (2015): Updated to be consistent with OSHA and NIOSH regulations regarding APFs and Maximum Use Concentrations (MUCs), aligning its recommendations with current law.

ANSI/ASSE Z88.2 (Respiratory Protection) is considered to be far better and more comprehensive than OSHA's minimum requirements because it provides more up-to-date, in-depth technical guidance. While ANSI provides best practices developed by experts, OSHA regulations are legally mandatory from a rule decades-old. Using Z88.2 ensures a higher, more impactful level of protection.

Recommendation: It needs to be noted that ASSE/ASSP transferred the Z88 Committee to ASTM International in 2017/2018. Z88.2 has been revised and updated with a new number. The DOE needs to replace Z88.2 with the current ASTM Standard.

*ASTM F3387-23: Standard Practice for Respiratory Protection "...The purpose of this practice is to provide information and guidance on the proper selection, use, and maintenance of respirators, which will help safeguard the life and health of respirator wearers. This practice is written for all persons concerned with respiratory protection, but especially for those primarily responsible for establishing and administering an acceptable respirator program. This practice contains requirements recommended for enforcement authorities in establishing regulations or codes for respiratory protection use..."*



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[www.astm.org](http://www.astm.org)

<https://www.astm.org/COMMITTEE/F23.htm>

<https://store.astm.org/f3387-23.html>

<https://www.astm.org/membership-participation/technical-committees/committee-f23/subcommittee-f23/jurisdiction-f2365>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC4994707/>

*ASTM Committee F23 on Protective Clothing was formed in 1977. F23 meets twice a year, usually in January and June, with approximately 75 members attending two or three days of technical meetings. The Committee, with a membership of about 260, currently has jurisdiction of over 44 standards, published in the Annual Book of ASTM Standards, Volume 11.03. F23 has 6 technical subcommittees that maintain jurisdiction over these standards. Information on this subcommittee structure and F23's portfolio of approved standards and Work Items under construction are available from the Lists of Subcommittees, Standards and Work Items below. These standards have and continue to play a preeminent role in the protective clothing industry and address issues relating to physical, chemical, biological, human factors, flame and thermal and radiological.*

### **ANSI Z49.1 Recognition**

ASSP is concerned that the DOE is proposing to eliminate current safety and health welding standards in order to rely on an OSHA standard that has not been significantly updated or revised in decades. ANSI Z49.1 focuses on practical, up-to-date, specialized safety procedures for the welding industry, while OSHA focuses on the minimum legal safety floor. The ANSI Z49.1-2021 Standard is also tailored to cover welding and cutting, covering safety from fire, explosion, and injury, whereas OSHA covers all occupational safety broadly.

The Society has representation of the Z49 Committee and thousands of our members have effectively and efficiently used and implemented the ANSI Z49.1 Standard. We contend that the standard needs to be retained and the current version [2021] be recognized. There is a blog article from ANSI included below, which addresses differences between OSHA and Z49.





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[https://blog.ansi.org/ansi/ansi-z49-1-2021-safety-in-welding/?\\_gl=1\\*iblcjs\\*\\_gcl\\_au\\*NTQ1Mjg2NzZM2LjE3NjkyMTc3NjluNzg2NzY1NDUxLjE3NzE0NjExMTQuMTc3MTQ2MTEwNA..](https://blog.ansi.org/ansi/ansi-z49-1-2021-safety-in-welding/?_gl=1*iblcjs*_gcl_au*NTQ1Mjg2NzZM2LjE3NjkyMTc3NjluNzg2NzY1NDUxLjE3NzE0NjExMTQuMTc3MTQ2MTEwNA..)

<https://webstore.ansi.org/standards/aws/ansiz492021>

### ACGIH Threshold Limit Values (TLVs)

The DOE's proposal to exclude ACGIH TLVs on the grounds of "administrative burden" ignores the critical safety function these guidelines serve. TLVs are science-based occupational exposure guidelines developed through peer-reviewed evaluation of toxicological and epidemiological data. In many cases, TLVs reflect more current scientific understanding than OSHA permissible exposure limits, many of which have not been updated for over 50 years.

Categorical exclusion of TLVs without a scientifically equivalent replacement diminishes the ability of industrial hygienists to apply evidence-based controls. Rather than a wholesale removal, ASSP recommends that current TLV's be included instead of removal.

## **II. Structured Worker Safety and Health Program Requirements (§851.24)**

The Society is concerned that contractors would no longer be required to "have a structured approach to their worker safety and health program" in areas including construction safety and industrial hygiene.

ASSP is deeply concerned by the proposal to remove requirements for a structured approach to safety and health functional areas. Structured management systems are the bedrock of systematic hazard and exposure identification and accountability. Eliminating these explicit expectations invites fragmentation across contractor operations. We strongly urge the DOE to retain these requirements to ensure a consistent, systems-based approach to hazard and exposure assessment and remediation. Our position statement on the importance of safety management systems is attached as an appendix. We also will include our data and background materials indicating that investment in occupational safety and health management systems is positive for organizations and impacts the bottom line in a beneficial manner.

Please note that the following construction and demolition OSH management standards are created by ASSP's A10 Committee. The Department of Energy is on the committee and is a key participant in creating and revising these standards:



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- ✓ ANSI/ASSP A10.1-2024 Pre-Project & Pre-Task Safety and Health Planning: *This standard establishes the elements and activities for pre-project and pre-task safety and health planning in construction.*
- ✓ ANSI/ASSP A10.33-2020 Safety and Health Program Requirements for Multi-Employer Projects: *This standard sets forth the minimum elements and activities of a program that defines the duties and responsibilities of the parties involved in a multi-employer construction site.*
- ✓ ANSI/ASSP A10.38-2021 Basic Elements of an Employer's Program to Provide a Safe and Healthful Work Environment: *This standard establishes the minimum elements of a program for protecting the safety and health of employees involved in construction and demolition activities.*
- ✓ ANSI/ASSP A10.39-2022 Construction Safety and Health Audit Program: The purpose of this standard is to establish an internal method of measuring compliance with an organization's written safety and health program requirements.

We also create, coordinate, and publish the following impactful standards:

- ✓ ANSI/ASSP Z10.0 - 2019 Occupational Health and Safety Management Systems: This standard provides a management tool to improve performance, provide safe workplaces and reduce the risk of occupational injuries, illnesses and fatalities.
- ✓ ANSI/ASSP/ISO 45001-2018 Occupational Health and Safety Management Systems - Requirements with Guidance for Use: This document specifies requirements for an occupational health and safety (OH&S) management system, and gives guidance for its use, to enable organizations to provide safe and healthy workplaces by preventing work-related injury and ill health.

ASSP notes it does not understand why the DOE would not want to have structured occupational health and safety management systems for the nuclear environments addressed the proposal since they are a bedrock of performance. While the Society is concerned with all occupational hazards and exposures, allowing this to happen with nuclear applications does cause us concern.

### **III. Conclusion**



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ASSP does not see this proposal as modernization. Unfortunately, we see this as resulting in weakening worker safety and health protections. ASSP formally recommends that the DOE:

- Update, rather than delete: Reference current editions of consensus standards (e.g., ASTM F3387-23) and for ANSI Z49.1.
- Provide Evidence: Produce a technical justification demonstrating that worker protection will not be compromised by the exclusion of TLVs or other benchmarks.
- Uphold Standards: Retain the mandatory requirement for structured safety and health management systems.

ASSP remains available to provide further technical expertise to ensure these revisions prioritize the health and safety of the workforce.

Respectfully Submitted,

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2025-26 ASSP President

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**POSITION STATEMENT ON  
THE ROLE OF CONSENSUS STANDARDS AND  
GOVERNMENTAL  
REGULATIONS IN OCCUPATIONAL SAFETY AND  
HEALTH**

**Approved by the ASSP Board of Directors  
August 25, 1995, Reaffirmed June 2008 and June 2011  
June 2018, Reaffirmed With ASSE/ASSP Name Change**



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## POSITION STATEMENT ON THE ROLE OF CONSENSUS STANDARDS IN OCCUPATIONAL SAFETY AND HEALTH

The utilization of national consensus standards will be of increased importance to this country as the economy of the United States moves towards more of a global perspective. National consensus standards reflect the opinions of the professionals who work at all levels of the public and private sectors in technology development, manufacturing, training, financial analysis, personnel, academia as well as insight from the final end user. This balanced insight enables standards to be crafted in a way which not only benefits and protects users of the standard, but also furthers the interests of the businesses which have been created to meet user demand.

ASSP supports the increased utilization of consensus standards in the formulation of legislation and regulation for occupation safety and health. Governmental agencies such as OSHA, CPSC, NHTSA, etc... should be encouraged to utilize these consensus standards as they provide an efficient/effective alternative to traditional public sector rule making.

### Policy Implementation

ASSP advocates initiatives to encourage the utilization of national consensus standards as an effective/efficient option for meeting the demand of increased regulation/legislation in occupational safety and health since:

- National consensus standards have fewer procedural burdens
- The consensus method provides for a balance between competing interests
- The voluntary nature of consensus standards enables users to adapt provisions to meet unusual circumstances.
- Much lower standards development cost are obtained.

(Supporting white paper enclosed)



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## WHITE PAPER ON THE ROLE OF CONSENSUS STANDARDS AND GOVERNMENTAL REGULATIONS IN OCCUPATIONAL SAFETY AND HEALTH

### Preface

The American Society of Safety Professionals acknowledges a responsibility to take an active role in the evolution of national policy with respect to safety and health standards and regulations. At all times, and especially in times of political reform, there is a need for government to receive the counsel of the safety and health community with respect to standards development and promulgation.

As we review over three (3) decades of social legislation and its enforcement under EPA, OSHA, CPSC, etc., Congress and the professional safety and health community are again raising questions as to what the role of occupational safety and health standards and regulation should be. Some legislators have proposed a more comprehensive program of standards and enforcement. Others have maintained that the proper place for standards development and enforcement is within the national consensus standards-setting framework. Others have supported a performance-oriented approach to safety and health standards.

While this paper primarily focuses upon occupation safety and health standards and regulation, the positions set forth here can be applied generically to other regulatory areas. Essentially the uses of national consensus standards in the regulatory process, unless warranted by legislation already in place, should be pursued along the lines suggested in the various venues of this paper.

### Introduction

To obtain a legislative compromise one of whose objective was to avoid delays that were inevitable if regulations were developed under the provisions of the Administrative Procedure Act, the Occupational Safety and Health Act of 1970 required the newly formed Occupational Safety and Health Administration (OSHA) to promulgate safety and health regulations using existing nationally recognized consensus standards. While this action did serve the congressional intent of quickly establishing a set of regulations for OSHA to enforce, it also resulted in the adoption of hundreds of regulations that were of minimum value in protecting workers. Although OSHA has done much to eliminate such nuisance regulations, enforcement of regulations with questionable value in the 1970's resulted in resentment from industry that lingers even today.

Yet another problem in OSHA's rapid adoption of consensus standards as regulations was that advisory provisions of voluntary consensus standards became mandatory provisions of government regulations. In other words, not only was the voluntary standard made into a



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mandatory regulation, but many advisory provisions that used the word "should" were made into mandatory provisions when OSHA replaced the word "should" with "shall." The result was that some regulations were, as a practical matter, impossible to fully comply with. Many OSHA regulations were changed to address such concerns, but the experience seems to have damaged OSHA's reputation and credibility.

These developments also impacted the conduct of consensus standards committees. Many committees revised standards to clarify the original intent of provisions, more explicitly addressed exceptions to general provisions, narrowed the scope of the standards or otherwise reacted to developments at OSHA. Even today, members of consensus standards committees look beyond conveying general principles and concepts and concern themselves with exceptions to the rule, adverse impact on specific industries, legal implications of standards, and the potential for misinterpretation. Thus, as a result of OSHA and other factors<sup>1</sup>, the development and maintenance of consensus standards related to occupational safety and health has become a much more complicated and demanding endeavor.

Given that OSHA regulations now exist, and given the cost and complexity of developing and maintaining consensus standards, one may question the value of consensus standards activities. Should consensus standards be withdrawn if they cover areas also covered by OSHA regulations? If so, what would happen if OSHA is eliminated? If no, what value is the consensus standard providing? What role should consensus standards play in occupational safety and health? What functions must be reserved for regulation?

To the above end this paper examines the proper role of consensus standards and government regulation in occupational safety and health. After describing the role of consensus standards to occupational safety and health, this paper concludes with a description of policies of the American Society of Safety Professionals intended to enhance this role.

### Discussion

#### The Value of Consensus Standards Generally

When compared to government regulation, consensus standards have several advantages, including the following:

- fewer procedural burdens;
- consensus method;
- voluntary nature allows users to adapt provisions to meet unusual circumstances;
- much lower development cost.



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These advantages lead to authoritative documents that can be quickly developed and modified, appeal to common sense, are flexible in application, and are cost effective when compared to the federal regulatory process.

It is important to note that the concept of consensus and the input of most, if not all, materially interested parties is critical to the consensus system. Care must be exercised in the makeup and organization of consensus committees to assure the integrity of the process. Without these attributes the validity of a consensus standard is suspect.

### When Government Regulation is Required

As previously stated, the validity of consensus standards is based on achieving consensus among all materially interested parties. It follows that government regulation is probably necessary when consensus cannot be achieved in the voluntary standards process, or when the voluntary standards process does not receive input and consider the views of all materially interested parties.

Government regulation is also required when a higher level of validity or greater objectivity is required for enforcement. Such may be a watershed issue for industry as OSHA is legislatively and administratively reformed. If industry wants high objectivity (i.e. little or no discretion or interpretation by OSHA compliance officers), then detailed and comprehensive regulations must exist. On the other hand, if industry wants less regulation and greater flexibility, then industry should consider greater application of voluntary standards in enforcement decisions made by OSHA compliance officers using their professional judgment. Given the appeal provisions allowed under OSHA this trade off appears worthwhile.

A potential danger in increased use of consensus standards is that the process will become targeted by special interests. However, viewed another way, increased use and application of consensus standards by OSHA will motivate increased participation in the consensus process and thereby increase the quality and validity of consensus standard related to occupational safety and health. While the "political" intensity of the process may increase, each party in the process will proceed with the understanding that (1) consensus does not require unanimity, and (2) failure to reach consensus may result in federal regulation.

### The Value of Consensus Standards in Areas Addressed by Government Regulations

A practical concern to resource-limited standards developers is the extent to which support should be continued for consensus standards in areas addressed by government regulation. Consensus standards related to safety and health are perceived as less acceptable when OSHA regulations address the same issue, but nevertheless provide the following benefits:

- consensus standards can provide a useful "how to" supplement to OSHA regulations;



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- consensus standards can influence revisions to OSHA regulations;
- unlike OSHA, consensus standards can address off-the-job safety and health issue;
- consensus standards address new issues and incorporate updated scientific information quickly while OSHA proceeds with its rulemaking process;
- consensus standards can provide a valuable reference for safety and health evaluations in cases where OSHA regulations have become outdated.

### The Relationship Between OSHA Regulations and Consensus Standards

What the preceding discussion suggests is that a complementary relationship should exist between OSHA regulations and consensus standards. As a matter of policy, OSHA should take advantage of valid consensus standards and use them in enforcement, mindful of the fact that consensus standards are not written to address every foreseeable circumstance. OSHA will spend less money developing regulations, and, armed with common sense, consensus standards, and reasonable discretion, OSHA compliance officers can do their job more effectively. For the consensus standards developer, OSHA regulation can provide an alternative to stalemate when consensus cannot be achieved. In addition, such action is also in accordance with the approved, reaffirmed, and revised Office of Management and Budget Circular A-119 Federal Participation in the Development and Use of Voluntary Standards (See Appendix B). For those almost unresolvable issues of standards setting, the ASSP recommends more use of the negotiated rulemaking option as critical safety and health standards need to be available.

### ASSP Supports Consensus Standard Alternatives to Federal Regulation

ASSP encourages support of consensus standards activities and processes as an alternative to government regulation of occupational safety and health whenever conditions permit. When compared to government regulation, consensus standard activities allow for greater participation by ASSP professionals in the development of safety and health practices. Also, since consensus standards do not profess to address every possible situation, ASSP professionals also have greater influence in the application and interpretation of consensus standards than they do with federal regulations.

### Implications for OSHA Reform

ASSP encourages support of OSHA reforms that foster the use of consensus standards in enforcement when a standard does not exist, is inadequate, or is obsolete/dated. For safety professionals/practitioners to realize greater opportunities to apply their professional skill and judgement, consensus standards must, in some sense, be authoritative. Without such



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authority, safety and health professionals may not have sufficient influence and resources to properly do their jobs. For consensus standards to be authoritative, OSHA must be able to routinely rely on provisions of consensus standards in enforcement.

Since national consensus standards do not contemplate every possible scenario, there exists a need for interpretation of the standards based upon professional judgement. When such standards are used in the regulatory enforcement process, federal/state agencies should rely primarily, although not exclusively, upon the view of those who wrote the standards. Facilitation of agency needs should be provided promptly in a collegial manner.

### ASSP's View of Government Regulation

While government regulation appears fundamental to safety/health standardization, it should, nevertheless, be efficient, participative, and centralized. The regulated community will more likely view these characteristics as a value-added process where they are encouraged to provide input. Having regulations developed centrally reduces the need for each jurisdiction to prepare their own standards. Having multiple standards bodies presents many difficulties for the regulated community that has facilities in many jurisdictions.

Standards need to be written for the regulated community to readily understand and implement. If standards were more clearly written, compliance directives would not be needed as an interpretation would be obvious. Standards often appear written more for ease of enforcement or to help the solicitors prevail in legal proceedings. Enabling legislation may be necessary, in this situation, to achieve the desired results.

These regulatory standards often have some requirements which have little to do with achievement of safety and health objectives. Some of this may result from OSHA's approach in writing standards in a one-size-fits-all style. These standards should require only what is necessary to achieve a reasonable reduction in risk. Layers of documentation and written certifications are often extras that add compliance burden with little safety/health accomplishment. If enabling legislation is needed to obtain these results, such action may be necessary.

- Standards, developed by OSHA or any agency, need a user panel review before they are published in final form. Enabling legislation or appropriate regulation may be required to obtain this result.
- Standards covering similar issues in the same Part or across different Parts of OSHA standards should have the same requirements, unless the hazards are very different.



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- OSHA should have an active process to review standards and update them on a five (5) year cycle after a period of experience in application to harmonize them with the more current consensus standards.
- The standards making/regulatory process should factor in a requirement to allow visits of sites/personnel in the regulated community at any time in the development of a standard to review how issues proposed or being developed for regulation are currently being managed and the costs of managing these issues.

The above features should be put forth or considered as desirable tasks of rule-making when legislators or regulators move toward development of such regulatory standards.

### Conclusion

The ASSP supports a complementary relationship between OSHA regulations and consensus standards related to occupational safety and health which uses valid consensus standards enforcement, mindful of the fact that consensus standards are not written to address every foreseeable circumstance. ASSP points out that action of this nature may empower and enhance the professional stature of both ASSP members and OSHA compliance officers. Most importantly, such action will allow for a more efficient and responsive use of occupational safety and health resources thereby improving working conditions.

To further set in place the Society's view of national consensus standards per se Appendix A is provided. This policy position was approved by the Board of Directors on March 5, 1990. In essence the position looks at consensus voluntary standards apart from regulations while covering the range of issues involved in effective participating in the uniquely American system of standards making.



## **THE RETURN ON INVESTMENT FOR SAFETY, HEALTH, AND ENVIRONMENTAL (OSH) MANAGEMENT PROGRAMS**

NOTICE: This report, white paper, and set of recommendations were produced by the ASSP Council on Practices and Standards (CoPS) of the American Society of Safety Professionals (ASSP). CoPS is a council of ASSP, which provides technical insight to ASSP leadership addressing the practice of the safety profession, its specific disciplines, and the standards of practice impacting our members.

The ASSP Council on Practices and Standards is structured to provide balanced and sound Assessment of matters related to the effectiveness and efficiency of the standards of practice in the safety profession. The Council consulted with many organizations, entities, and governmental agencies while developing this report and white paper, however, it has not been reviewed for approval by any other entity than ASSP. The contents of this report, and its recommendations, do not represent the views of any other organization other than ASSP. The mention of trade names, companies, or commercial products does not constitute any recommendation or endorsement for use.

The information and materials contained in this publication have been developed from sources believed to be reliable. However, the American Society of Safety Professionals (ASSP) accepts no legal responsibility for the correctness or completeness of this material or its application to specific factual situations. By publication of this paper, ASSP does not ensure that adherence to these recommendations will protect the safety or health of any persons or preserve property.

Approved by the Council on Practices and Standards and the ASSP Board of Directors  
June 8, 2002, Reaffirmed/Reviewed June, 2008, June 2010, June 2017, and June 2019



## **SUMMARY ADDRESSING THE RETURN ON INVESTMENT (ROI) FOR SAFETY, HEALTH, AND ENVIRONMENTAL (OSH) MANAGEMENT PROGRAMS**

ASSP continues to get a significant number of inquiries addressing the return on investment for the creation and maintenance of occupational health and management safety systems. ASSP is the secretariat of the Z10 Committee, which writes the current Z10 Occupational Health and Safety Management Systems Standard and two outstanding implementation guides. In addition, ASSP also serves as the TAG Administrator (Technical Advisory Group) to ANSI for the ISO TC-283 Committee. TC-283 is the global committee responsible for the ISO 45001 OHSMS Standard and other pending publication. The Society takes great pride in being a global champion advocacy for the relevance and value of occupational health and safety management systems and the importance of effective safety management overall.

There have been a significant number of questions and inquiries from occupational safety and health professionals (OSH) looking for information about the implementation of such systems. Of interest is that ASSP member continue to challenge the Society to show examples of a safety management system having a positive impact. There are many examples, but these specific examples below and attached should assist. There are some research papers, white papers, data, and examples.

The implementation, maintenance, and improvement of OSH programs are of significant importance to this country as the economy of the United States moves toward more of a global perspective. Such programs positively impact all Americans and specifically those who work at all levels of the public and private sectors in technology development, manufacturing, training, financial analysis, personnel, academia as well as the final end user. An effective OSH Program not only benefits and protects the organizations implementing such a program, but also furthers the interests of the United States in a globally competitive environment.

The American Society of Safety Professionals (ASSP) knows from data and anecdotal information that investment in a OSH program is a sound business strategy, for any organization regardless of size, and will lead to having a positive impact on the financial bottom line. ASSP calls on governmental agencies such as Occupational Safety and Health



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Administration (OSHA), Mine Safety and Health Administration (MSHA), Environmental Protection Agency (EPA), Consumer Product Safety Commission (CPSC), and the National Highway Traffic Safety Administration (NHTSA), etc..., to do more in regard to showing that OSH management is more than simple compliance. The private and public sector should be encouraged to work together to show American business and industry that OSH is not only required under the law but should become and remain a core business strategy.





## **RETURN ON INVESTMENT (ROI) FOR OCCUPATIONAL SAFETY AND HEALTH (OSH) MANAGEMENT PROGRAMS**

### **Introduction**

The key question asked of many OSH Professionals by financial planners in business and industry is: Do safety and health management programs improve a company's bottom line? The answer is a resounding "YES", although benefits may be somewhat hard to quantify. But in addition to outright savings on worker's compensation benefit claims, civil liability damages<sup>1</sup>, and litigation expenses, having a solid safety and health management program with senior management commitment will improve productivity and employee morale. It can also make the difference between winning and losing bids and even government contracts.

ASSP has taken the position that the days are over when companies can view safety and health violations as the status quo, and regard OSH violations and the attendant civil penalties as another "cost of doing business." For one thing, penalties have been increasing in dollar amount. In addition, knowing violations that result in the death or serious injury of a worker may be prosecuted at the state level under criminal laws, or in a referral by a government agency to the U.S. Department of Justice.

### **The Hidden Costs of Failed Safety and Health Systems**

Anyone who has had the misfortune of witnessing or handling the aftermath of a serious or fatal on-the-job injury knows that, without question, the costs go far beyond those that appear in a company's ledger book. For those who survive, or who work with the accident or illness victim, the costs continue with psychological stress that may require years of counseling. Many times, co-workers who witness a serious event find themselves unable to return to the worksite for a significant period of time, which presents additional costs to the company through the abrupt loss of skilled workers. A plant with a singularly bad reputation for safety and health may find itself unable to attract workers at all or may have to pay wages well above market value to do so. These are just a few of the "hidden" costs of a poor safety and health program.

Moreover, as more information concerning a company's compliance and injury/illness experience becomes publicly available over the Internet and from the federal agencies through Freedom of Information Act (FOIA) requests, foes of industrial growth may use



this data to defeat permit applications or zoning change requests. Part of being a "good corporate citizen" - rather than a company that no one wants in their backyard - is offering a safe and healthful work environment to the local residents.

Companies may also "externalize" costs associated with workplace injuries or illnesses, to the detriment of their safety and health program management. If some other organization (such as worker's compensation, social security, welfare or other insurance) pays the costs, corporate management may have a disincentive to control hazards. ASSP believes here is an excellent example of being "penny wise and pound foolish."

When insurance pays for the immediate costs of employee injuries, ultimately we will all pay either in the form of higher premiums, inability to obtain insurance completely, or passed-through costs to the consumer. Conversely, when there are fewer accidents, society saves as a whole. Fewer hospitals, medical professionals and rehabilitation facilities will be needed, and employee productive capacity will not be reduced as a result of occupational injury, disease, and death.

Past Secretary of the Treasury, Paul O'Neill, who also served as the long-time chairman of Alcoa Steel Corporation, has taken the position that investment in safety, health, and the environment is good for the economy, country, the firm, and its workers. Part of his company's (Alcoa) key business strategy included emphasis on occupational safety, health, and environmental management. His belief is that investment in OSH makes sound business sense and should be a cornerstone of an organization's goals and objectives. During his nomination, appointment, and confirmation as Secretary of the Treasury, Mr. O'Neill consistently spoke in favor of ongoing investment in OSH as positive generator for organizations<sup>2</sup>.

Some statistics and examples to consider when reviewing the "Economics of Safety"<sup>iii</sup>:

- Nearly 50 workers are injured every minute of the work week
- Between 15 to 17 workers die on-the-job each day
- Workplace injuries will cost society \$128 billion in losses this year, which equals one-quarter of each dollar of pre-tax corporate profits



- Indirect costs of injuries may be 20 times the direct costs -- Indirect costs include: training and compensating replacement workers; repairing damaged property; accident investigation and implementation of corrective action; scheduling delays and lost productivity; administrative expense; low employee morale and increased absenteeism; poor customer and community relations
- To cover the cost of a \$500 accident, an employer would have to:
  - ✓ bottle and sell 61,000 cans of soda
  - ✓ bake and sell 235,000 donuts
  - ✓ deliver 20 truckloads of concrete

### **OSH Investment as a Core Business Strategy**

In recent years, encouraging senior management commitment to safety and health program management has become a priority for federal and state agencies involved with safety regulation and enforcement. A survey of employers indicates that the Top Ten motivations for taking actions were:

1. Cost of workers' compensation insurance (59 percent);
2. "Right thing to do" (51 percent);
3. "Increases Profitability" (33 percent);
4. Federal/State safety rules (31 percent);
5. "Too many accidents" (29 percent);
6. Employee morale (26 percent);
7. Productivity (23 percent);
8. OSHA fines (20 percent);
9. Employee concerns (5 percent); and
10. Recommendations of outside experts (13 percent)4.





## Examples of Savings Attributable to OSH programs<sup>iii</sup>

- On August 29, 2001, Liberty Mutual Insurance Company released a report titled: A Majority of U.S. Businesses Report Workplace Safety Delivers a Return on Investment. The Liberty Mutual survey shows 61 percent of executives say \$3 or more is saved for each \$1 invested in workplace safety.
- A OSH Director for an environmental services company in Massachusetts reported that its tracking data indicated \$8 saved for each dollar spent on a quality OSH program.
- A coal mining company in Charleston West Virginia has attained a competitive advantage through investment in OSH programs. The company claims its worker compensation rate is \$1.28 per \$100 in payroll as opposed to its competitor's rate of \$13.78.
- Fall protection program implementation reduced one employer's accident costs by 96 percent - from \$4.25 to \$ 0.18 per person-hour
- Implementation of an OSHA consultation program reduced losses at a forklift manufacturing operation from \$70,000 to \$7,000 per year
- Participation in OSHA's Voluntary Protection Program has saved one company \$930,000 per year and the company had 450 fewer lost-time injuries than its industry average
- A SHARP (Safety & Health Assessment & Research for Prevention Program) participant reduced its lost workday incidence rate from 28.5 to 8.3 and reduced insurance claims from \$50,000 to \$4,000 through decreases in both direct and indirect losses through a reduction its number of back and shoulder injuries.
- Implementation of an improved safety and health program reduced Servicemaster's worker's compensation costs by \$2.4 million over a two-year period





- A manufacturer using a state consultation program reduced its worker's compensation modification rate from 1.7 to .999, and saved \$61,000 on its worker's compensation insurance premiums\OSHA VPP sites saved \$130 million in direct and indirect injury/illness costs in 1999.
- OSHA's Office of Regulatory Analysis has stated: ...our evidence suggests that companies that implement effective safety and health can expect reductions of 20% or greater in their injury and illness rates and a return of \$4 to \$6 for every \$1 invested...
- In their 9/2001 article titled: Measuring Safety's Return on Investment, Susan Jarvis and Terry R. Collins, make the argument that there is a direct correlation between a company's performance in safety and its subsequent performance in productivity and financial results. They pointed out that in the Forbes 1999 Financial Rankings, among those listed ten of the most-successful U.S. businesses were participants in the OSHA VPP program<sup>6</sup>.

## Federal Programs

The original OSHA effort to encourage use of safety and health management programs was the Voluntary Protection Program (VPP) initiative, established in 1982, was restructured in 1996 and is still in effect. The VPP emphasizes the importance of worksite safety and health programs in meeting the goals of the OSH Act, and provides official recognition of excellent safety and health programs, assistance to employers in their efforts, and the benefits of a cooperative approach among labor, management, and government to resolve potential safety and health problems. Recognition in the VPP requires rigorous attention to workplace safety by all personnel. Sites are approved based on their written safety and health program and their overall performance in meeting the standards set by the program.<sup>iv</sup>

The VPP is comprised of program elements that have been demonstrated to reduce the incidence and severity of workplace injuries and illnesses.



- The "STAR" program is the most highly selective program and is for applicants with occupational safety and health programs that are comprehensive and successful in reducing workplace hazards. Lost workday rates are 53 percent below national averages.
- The "Merit" level is for companies with good programs that are looking to improve and proceed to the STAR level. Lost workday rates are 35 percent below national averages.
- The "Demonstration" level is designed for contractors who meet the requirements as STAR-level companies but are not otherwise eligible for the STAR or Merit designations.

VPP participation is strictly voluntary and OSHA keeps application information confidential. Participating employers must still comply with OSHA standards, but they are exempt from programmed OSHA inspections (although not from those prompted by employee complaints or triggered by fatalities, catastrophes or significant leaks and spills). OSHA claims the following ROI for companies participating in VPP<sup>v</sup>:

- Injury Incidence Rates: In 1994, of the 178 companies in the program, 9 sites had no injuries at all. Overall, the sites had only 45% of the injuries expected, or were 55% below the expected average for similar industries.
- Lost Workday Injury Rates: In 1994, of the 178 companies in the program, 31 had no lost workday injuries. Overall, the sites had only 49% of the lost workdays expected, or were 51% below the expected average for similar industries.
- While protecting workers from occupational safety and health hazards, companies following the management guidelines mandated for VPP membership also experience decreased costs in workmen's compensation and lost worktime, and often experience increased production and improved employee morale.
- The lost workday case rate at Thrall Car Manufacturing Company in Winder, Georgia decreased from 17.9 in 1989 when the facility began implementing a VPP



quality safety and health program to 4.6 in 1992 when the plant was ready to qualify for the Star Program. In 1994 the rate was 0.6. From 1989 when Thrall Car's Winder, Georgia plant began implementing its programs to qualify for the VPP and 1992, workers' compensation costs dramatically declined by 85%, from \$1,376,000 to \$204,000.

- At Monsanto Chemical Company's Pensacola, Florida Plant, which employs 1600 workers, the Lost Workday Case Rates have steadily declined during the period the worksite was implementing effective safety and health programs and in the four years since approval to the VPP. The rates fell from 2.7 in 1986 to 0.1 in 1994.
- Mobil Chemical Company has brought all of existing plants (plastics production and chemical plants) into VPP. OSHA reported that the company's recordable injuries were reduced 32%, lost workday cases were reduced 39%, and the severity of cases was reduced by 24%. Also, the company reduced its workers' compensation costs by 70 per cent, or more than \$1.6 million, from 1983 to 1986, during the years it was qualifying its plants for the VPP. This reduction has been sustained through 1993. Mobil Oil Company's Joliet, Illinois refinery experienced a drop of 89 percent in its workers' compensation costs between 1987 and 1993.
- Occidental Chemical Company determined that as their Safety Process Systems Implementation percentage increased company-wide their Injury/ Illness rate decreased from 6.84 in 1987 to 1.84 in 1993, a 73 % decline.
- In the construction industry, Georgia Power Company brought two large power plant construction sites into the VPP in 1983 and 1984. By 1986, one site had reduced its total recordables by 24 per cent and its lost workday cases by a third. The other site reduced recordables by 56 per cent and its lost workday cases by 62 per cent. At Georgia Power's two power plant construction sites, the direct cost savings from accidents prevented at one site was \$4.14 million and was \$.5 million at the other for 1986 alone.
- During three years in the VPP, the Ford New Holland Plant noted a 13 per cent increase in productivity and a 16 per cent decrease in scrapped product that had to be reworked.





- During a recent evaluation of the Kerr-McGee Chemical Corporation Mobile, Alabama plant in July 1991, the VPP team found that at the same time, work related injuries continued to decline, production hit an all time high that exceeded the goal by 35 percent.

Additionally, OSHA has received considerable information on improvements in morale, productivity, and product quality. Although anecdotal in nature, these improvements are referred to frequently enough by participants in the VPP to indicate that there is a good possibility of a direct relationship between improved management of safety and health protection and these benefits.

### **OSHA E-Cat Initiatives**

OSHA continues to expand its "e-CAT" initiative, which pushes implementation of a safety culture at every level of an organization. The multi-faceted program has four components: (1) Management System and Safety/Health Integration; (2) Safety and Health Checkups; (3) Creating Change; and (4) Safety and Health Payoffs.

OSHA's e-CAT program consists of electronic Compliance Assistance Tools ("CATs") that provide guidance information for employers to develop a comprehensive safety and health program. Such programs are required by some states, although there is currently no such federal OSHA requirement.

OSHA's safety and health program management rule is under development, and its future will depend on the regulatory priorities of any Administration. The draft rule, released in October 1998, would have covered all general industry employers and applied to hazards covered by the General Duty Clause and existing OSHA standards. The proposal set forth the following core elements:

- Management leadership and employee participation (hold managers accountable for carrying out safety and health responsibilities in the workplace and provide them with the authority to do so; and, provide employees with the opportunity to participate in establishing, implementing and evaluating the program);



- Hazard identification and Assessment (conduct worksite inspections, review safety and health information, evaluate new equipment, materials and processes before they are introduced to the workplace, and ASSPss the severity of hazards);
- Information and training (provide employees with information and training in the safety and health program with respect to the nature of hazards, what is done to control the hazards, and the provisions of applicable standards); and
- Evaluation of program effectiveness (at least once every two years, after the initial program development).

Existing programs would be grandfathered as long as they satisfied the basic obligation for each core element and the employer could demonstrate the effectiveness of its program. The rule would also require employers at multi worksites to provide information about hazards, controls, safety and health rules and emergency procedures for all workers. ASSP commented extensively about this rule in regard to its technical applications, however, the Society remain steadfast in its belief that more needs to be done to encourage the development and implementation of OSH programs.

Finally, OSHA has the "SHARP" program (Safety and Health Achievement Recognition Program), which provides incentives and support to develop, implement and improve effective safety and health programs. Participating employers may be exempted from OSHA programmed inspections for a period of one year. All consultation and visits are conducted at employer request. Typical participants are smaller high-hazard businesses (e.g., with fewer than 250 employees) that do not have serious safety and health problems. Participants undergo a comprehensive site visit and agree to correct all identified safety and health hazards.

Even where not mandated by law, OSH management programs are critical to the safety, health, and environmental performance of an industrial employer. Companies that are truly committed to excellence should consider participation in the VPP or the other consultation and professional development programs offered by OSHA or through professional safety organizations such as ASSP.





## State Programs

At the state level, Oklahoma in the past was lauded for its "Safety Pays" program, which offers employers assistance in developing management programs that identify and eliminate workplace hazards and ensure compliance with OSHA regulations. Nine employers were among those receiving the state's Awards of Excellence" and it was noted that the employers had zero lost-time accidents while reducing worker's compensation insurance costs from 47 to 97 percent.

Similar savings were noted in Alberta, Canada, where the Worker's Compensation Board announced last year that over \$2 million in premium refunds would be distributed to more than 400 employers who registered in the "Partners in Injury Reduction" (PIR) program. Other PIR program benefits included lower worker's comp premiums, increased worker productivity and minimized accident costs. The average lost-time claim rate at PIR participant worksites dropped more than 20 percent.

## Private Sector Initiatives

At the private sector level, the American Textile Manufacturers Institute (ATMI) instituted the "Quest for the Best in Safety and Health" program in 1993 to help its members identify strategies for continuous improvements in safety and health. Approximately 50 companies participated and had impressive results. At one company, Springs Industries, 45 percent of its plants worked 1 million manhours or more without a single lost-time accident and some exceeded 10 million manhours. What was the secret of their success? The following elements were responsible for a 25 percent decrease in overall injuries in the program's first year:

- Guaranteeing management commitment,
- Publicizing the company's commitment to safety throughout the community,
- Including discussions of safety issues during employee interviews,
- Offering employee wellness programs (healthier employees are less likely to be injured on the job),



- Training employees thoroughly, with new hire orientation and use of Job Safety Analysis (a blueprint for carrying out each step of a job safely),
- Conducting accident investigations and creating a case management program, and
- Implementing an effective OSH program that involves total commitment from employees and management based on a "team" approach.

## **Environmental ROI**

It has become generally accepted and understood that there is a significant and growing correlation between industrial companies' investment in their environmental programs and their overall competitiveness and financial performance. For example, Innovest Strategic Value Advisors has consistently reported that some researchers claim that the "sustainability premium" can regularly exceed 200 basis points annually for broadly diversified portfolios. There have even been instances where it can surpass 500 in sectors with a particularly acute risk exposure<sup>8</sup>.

Innovest Strategic Value Advisors, in an annual investment research report on the Global Auto Parts market, reported that its results indicated that firms investing in environmental management posted accumulated returns over 48.8% higher than environmental laggards over a 3-year period, and 6% higher returns over 1-year. The report further indicated that Denso Corporation and Snap-On Tools emerged as the top ranked companies in this annual survey, which surpassed the performance of 18 of the world's leading automotive parts and supply companies in areas such as environmental management, resource usage, climate change, product life cycle analysis and sustainability-related profit opportunities in new markets<sup>9</sup>.

In addition, a subsequent study of the electric utility industry, found that portfolio managers who screen out companies with poor environmental records can outperform others by more than 7% annually. Finally, a news report shows that the top environmental performers in the computer sector have outperformed their industry rivals financially by 25% since the beginning of 1998. The report, *The Computer Industry -- Hidden Risks and Value Potential for Strategic Investors*, calls into question the view of the environment as a cost center and



presents evidence linking superior environmental performance with competitiveness and profitability. Citing Dell Computer Corp. as one example, the report says the company's energy-efficiency initiatives already have generated cost savings of 37%.<sup>vi</sup>

## **Value of Company/Organizational Reputation**

Most of text is taken or based upon a report titled: The Benefits of Reputation Management. The Reputation Institute is a private research organization founded by Professor Charles Fombrun Stern School of Business, New York University, and Prof. Cees van Riel, Rotterdam School of Management, Erasmus University. The Institute's mission and core purpose is to build thought leadership about corporate reputations, their management, measurement and valuation. It brings together a global network of academic institutions and leading edge practitioners interested in advancing knowledge about corporate reputations. OSH is part of the reputation analysis process.

It has long been recognized that a Company's reputation is of significant value in generating a favorable ROI. For example, a company or organization will benefit from a favorable reputation by becoming the first choice of customers, investors, suppliers, and employees. A favorable reputation with customers creates a degree of brand equity with them that enhances loyalty, encourages repeat sales, and grows revenues. Similarly, a favorable reputation with employees can help attract better employees, spur productivity, and enhance profitability. Comparing book values with market valuations suggests that the intangible ASSP's of public companies in the US and the UK constitute on average some 55 per cent of their market valuations - a proportion that has grown steadily over the past 40 years. These intangibles are made up of intellectual capital such as patents and reputational capital (the strength of the company's stakeholder relationships).

## **Update Reference and Supporting Materials Below**

Articles Embedded:

- ✓ A Research paper on SMS Safety Culture and effectiveness



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research paper  
investigation-sms-sa

- ✓ So You're a Systems Type, Eh? (Article – File #062)



062\_063\_VP\_0517z.  
pdf

- ✓ The original ASSP White Paper on Safety and return on investment



ROI Paper 2008 -  
Reaffirmed 2010.pdf

- ✓ Maximizing audit impact using management systems (Article – File #025547)



025547um.pdf

- ✓ An Overview of the Occupational Health & Safety Management Systems Standard (Article – F3 - Manuele)



F3\_Manuele\_0414.p  
df

- ✓ Safety Management Systems (Article – File Haight)



F1Haight\_0514.pdf

- ✓ GRI 403-2018: Health and Safety Standard (Article – GRI OHSMS)



GRI\_OSHMS\_  
45001\_Z10\_0918.pdf





## **Other Websites and Supporting Materials**

The materials below should also be of interest. These are additional articles and studies looking at management systems. Several are specific to management systems and some are talking about management systems overall. The sites are from colleges, governmental agencies, and other non-commercial sites. Hopefully, these materials though should be of assistance when looking at ROI and implementing a management system.

[How ISO 45001 and Z10 Safety Management System Standards Fit With GRI Standard on Occupational Health and Safety](#)

[A systematic review of the effectiveness of safety management systems](#)

[Safety management systems- Audit tools and reliability of auditing](#)

[A Human Factors Perspective on Safety Management Systems](#)

[Effectiveness of occupational health and safety management system interventions: A systematic review](#)  
[Safety Management System](#)

[Planning and Implementing Safety Management Systems](#)

[An empirical analysis of the effectiveness of occupational health and safety management systems in SMEs](#)

[Return on Investment of Safety Risk Management System in Construction](#)

[Return on Investment Tool for Assessing Safety Interventions](#)

[Safety Management System SMS Explained](#)

[Safety Management Systems \(SMS\): Information, Approaches and Best Practices](#)



[Paradoxes, Challenges and Opportunities in the Implementation of Safety Management Systems](#)

[MIOSHA Fact Sheet - Safety & Health Management System](#)

[U.S. Department of Energy – Safety Management System Policy](#)

One of the other questions with ASSP members and OSH Professionals deals with GRI (Global Reporting Initiative) since it has the requirement for inclusion of a management system. A fast history that should assist:

- GRI produced a standard in 2018 that is an update of an existing standard and address management systems, (Article Embedded). This standard probably will not be updated for several years.
- Both ASSE/ASSP and the U.S. TAG to ISO TC283 wrote letters on the GRI Standard since we wanted the document to recognize Z10 and ISO 45001, (Article Attached).
- The GRI Standard to review: is attached – it is also available on their site so I am including the link to the document: :

<https://www.globalreporting.org/standards/gri-standards-download-center/gri-403-occupational-health-and-safety-2018/>

<https://www.assp.org/news-and-articles/2018/09/24/how-iso-45001-and-z10-fit-with-gri-standard-403-on-occupational-health-and-safety>

If/when an OSH Professionals decides to work with an organization to pursue implementation of a management system, ASSP will be pleased to offer additional information. ASSP can offer applicable management system standards, books and publications, and high caliber applicable training. We look forward to working with our members and OSH stakeholders in the future on such implementations.





## Conclusion

Workplace injuries and illnesses are costly in financial and human terms. More than \$40 billion are paid each year by employers and their insurers in worker's compensation benefits, or nearly \$500 per covered employee. This figure is simply unacceptable. The data and citations referenced throughout this paper support the ASSP finding that there is a direct positive correlation between investment in OSH and its subsequent ROI. Ultimately, company executives must recognize that they have a duty to provide a safe and healthful workplace to those who work for the company or visit the worksite. It is unethical to risk someone's life and health in order to save money. A sound safety and health management program can help companies fulfill their moral obligation.

## Endnotes:

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<sup>i</sup> Negligent or willful injury and wrongful death suits can be brought where contractors or worksite visitors may be involved, as well as under certain state laws (Maryland, West Virginia and Ohio are some examples), which permit employees or their survivors to sue employers in tort where egregious or intentional behavior, or ultra-hazardous activities are involved.

<sup>ii</sup> Based upon a speech given by then Alcoa Chairman Paul O'Neill to the Council for Excellence in Government on May 10, 1999 titled: Excellence in Government-How do We Get It

From an article titled: Do You Know How Much Accidents Are Really Cutting Your Business?, Lee Smith Colorado State University Health&Safety Consultation Program, 1996.

<sup>iii</sup> Survey by the National Federation of Independent Business, Motivating Safety in the Workplace (June 1995).

Article by Adele L. Abrams, Safety Management Programs Make Dollars and Sense, ASSP Management Practice Specialty Newsletter, The Compass, Volume Number 2, Winter 2001-2002.

<sup>iv</sup> From the article: Measuring Safety's Return on Investment, Susan Jervis and Terry R. Collins, ASSP Professional Safety Journal, September 2001.



<sup>v</sup> Taken from the U.S. Occupational Safety and Health Administration (OSHA) publication, *The Benefits of Participating in VPP*, 2001

<sup>vi</sup> 8 Most of this text is taken or based upon a study conducted by Innovest Strategic Value Advisors, New York, NY, 2001.

