

OSHA Regulations, Guidance and Employer Support Programs to Further Safety and Health in Laboratories

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ChABSA
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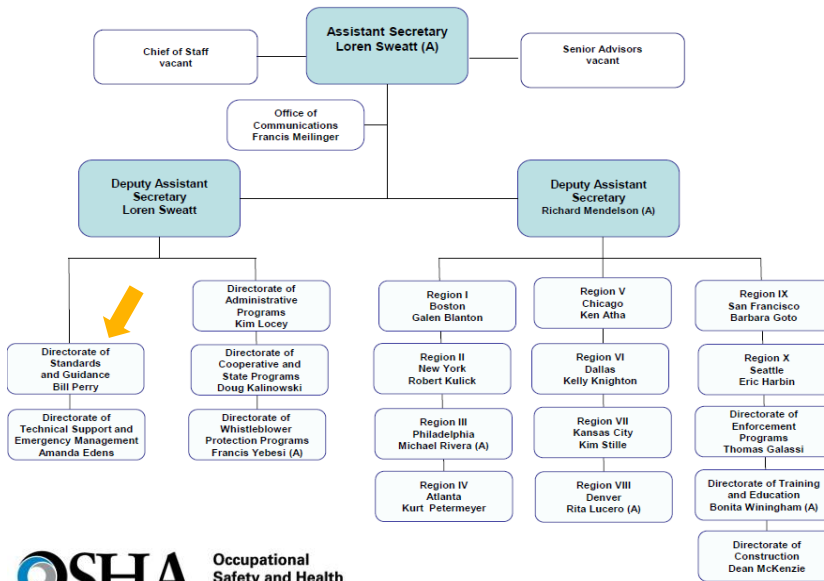


OSHA's Mission

“... to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.”



OSHA Organizational Chart



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OSHA Regulations Applicable to Labs

- ☐ OSHA Bloodborne Pathogens standard (1910.1030) promulgated in 1991.
- ☐ Needlestick Prevention Act (2000).
- ☐ OSHA TB proposal (1997) / withdrawal (2003).
- ☐ Other OSHA Standards that may apply:
 - 1910.132 – Personal Protective Equipment
 - 1910.133 – Eye and Face Protection
 - 1910.134 – Respiratory Protection
 - 1910.138 – Hand Protection
 - 1910.145 – Accident Prevention Signs & Tags

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OSHA Regulations Applicable to Labs

- ☐ **Other OSHA Standards that may apply:**
 - 1910.1200 – Hazard Communication
 - 1910.1048 – Formaldehyde Standard
 - 1910.1096 – Ionizing Radiation Standard
 - 1910.1405 – Occupational Exposure to Hazardous Chemicals in Laboratories
- ☐ **OSH Act – Section 5(a)(1) the General Duty Clause.**

Definitions

- ☐ **Hazard:** A condition or a set of circumstances that present a potential for harm. Hazards are divided into two broad categories:
 - Health hazards (cause occupational illnesses)
 - Safety hazards (cause physical harm - injuries)
- ☐ **Occupational Exposure:** Exposure which is or should be reasonably anticipated, to a hazard (e.g., an infectious agent) during the performance of a worker's duties.

Horizontal versus Vertical Standards

- ❑ **Horizontal Standard** – a standard that applies to any employer in any industry where workers have occupational exposure to the hazard. Examples of horizontal standards are the Bloodborne Pathogens standard; the PPE standards; the Hazard Communications standard. Most standards are horizontal.
- ❑ **Vertical Standard** - a standard that applies only to an employer in a particular industry where workers have occupational exposure to the hazard. Examples of a vertical standard would be the Infectious Diseases (ID) standard that is being developed. The ID standard rule would focus on the healthcare and associated industries. Additional examples of vertical standards would be those that apply to the Longshoring or Construction industries.



Performance versus Specification Standards

Performance-based standards – Standards that give the employer the latitude to determine which specific methods to use to mitigate employee exposures to hazards. Example: The BBP standard is performance based and, as such, the employer has the latitude to determine which PPE best suits the workplace environment and the anticipated occupational exposure. Most standards are performance-based.

Specification standards – Standards that restrict the employer to use specific methods to mitigate employee exposures to hazards or to reduce a hazard to a specific level. Many chemical standards are specification standards; they specify a permissible exposure limit (PEL).



OSHA Standards Most Cited for Violations in Labs 01/01/2011 – 05/01/2018

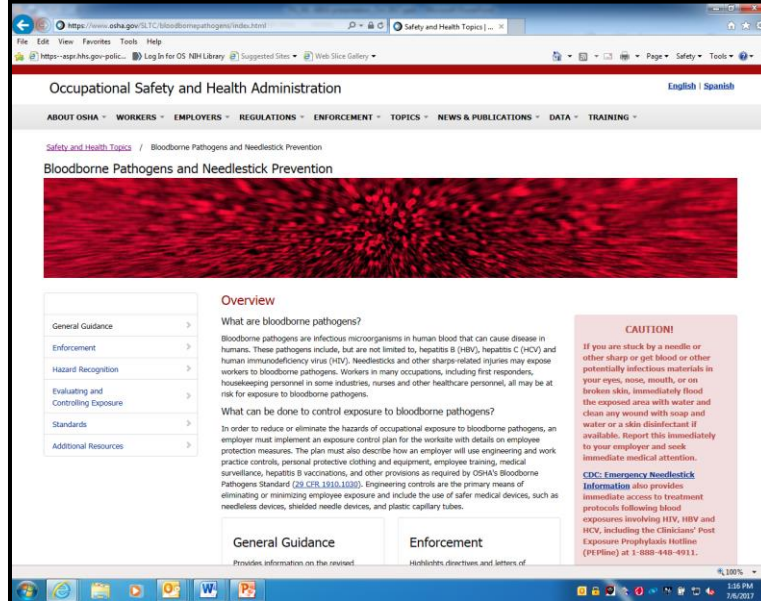
- ☐ 29 CFR 1910.1030 - Bloodborne Pathogens
- ☐ 29 CFR 1910.1200 - Hazard Communication
- ☐ 29 CFR 1910.1450 - Occupational Exposure to Hazardous Chemicals in Laboratories (Laboratory Standard)
- ☐ 9 CFR 1910.134 - Respiratory Protection
- ☐ 29 CFR 1910.1048 – Formaldehyde
- ☐ 29 CFR 1910.132 - PPE - General Requirements
- ☐ 29 CFR 1910.133 - PPE - Eye and Face Protection
- ☐ 29 CFR 1910.138 - PPE - Hand Protection

BBP Standard 1910.1030 - Most Cited Paragraphs of Standard - 01/01/2011 – 05/01/2018

Paragraph of standard most cited:

- ☐ (c) Exposure control plan
- ☐ (g) Communication of hazards to employees
- ☐ (d) Methods of compliance
- ☐ (f) Hepatitis B vaccination and post-exposure evaluation and follow-up
- ☐ (h) Recordkeeping

Bloodborne Pathogens (BBP) Standard – 1910.1030



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<https://www.osha.gov/SLTC/bloodborne pathogens/index.html>

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Hazard Communication Standard 1910.1200 - Most Cited Paragraphs of Standard 01/01/2011 – 05/01/2018

Paragraph of standard most cited:

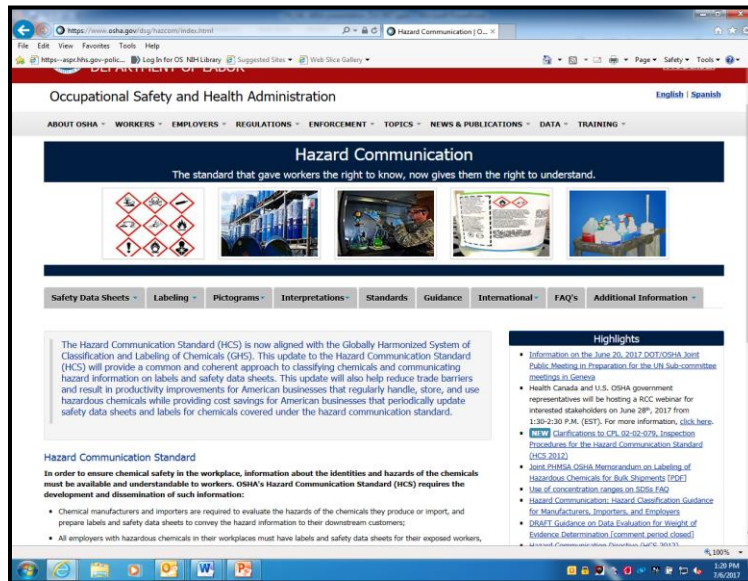
- ☐ (h) Employee information and training
- ☐ (e) Written hazard communication program
- ☐ (f) Labels and other forms of warning
- ☐ (g) Safety data sheets



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Hazard Communication Standard – 1910.1200

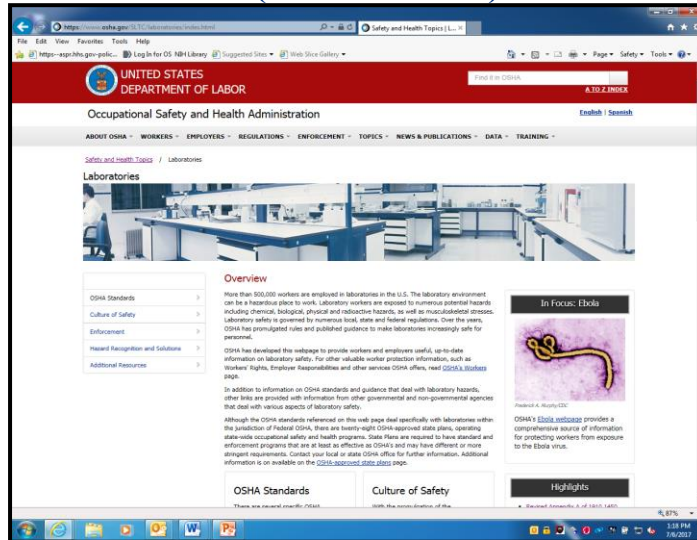


Lab Standard 1910.1450 - Most Cited Paragraphs of Standard 01/01/2011 – 05/01/2018

Paragraph of standard most cited:

- ☐ (e) Chemical hygiene plan
- ☐ (f) Employee information and training
- ☐ (d) Employee exposure determination
- ☐ (g) Medical consultation and medical examination

Occupational Exposure to Hazardous Chemicals in Laboratories (Lab Standard) – 1910.1450



Respiratory Protection Standard 1910.134 - Most Cited Paragraphs of Standard 01/01/2011 – 05/01/2018

Paragraph of standard most cited:

- ☐ (c) Respiratory protection program
- ☐ (e) Medical evaluation
- ☐ (f) Fit testing
- ☐ (k) Training and information

Respiratory Protection Standard – 1910.134



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[Safety and Health Topics](#) / Respiratory Protection

Respiratory Protection



General Guidance	➤
Training Videos	➤
Standards	➤
Enforcement	➤

Overview

An estimated 5 million workers are required to wear respirators in 1.3 million workplaces throughout the United States. Respirators protect workers against insufficient oxygen environments, harmful dusts, fogs, smokes, mists, gases, vapors, and sprays. These hazards may cause cancer, lung impairment, diseases, or death. Compliance with the OSHA Respiratory Protection Standard could avert



Highlights

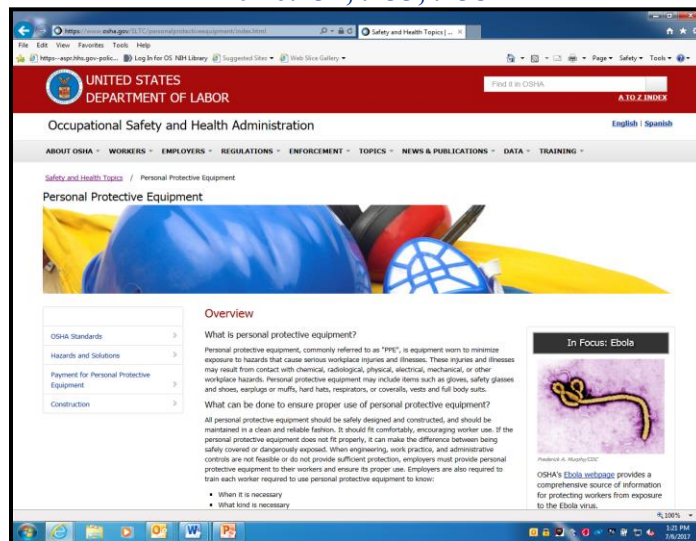
- NIOSH/OSHA/CDC Toolkit: [Hospital Respiratory Protection Program Toolkit: Resources for Respirator](#)



<https://www.osha.gov/SLTC/respiratoryprotection/index.html>

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Personal Protective Equipment (PPE) Standards – 1910.132, .133, .138



<https://www.osha.gov/SLTC/personalprotectiveequipment/index.html>



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Formaldehyde Standard – 1910.1048



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[Safety and Health Topics](#) / Formaldehyde

Formaldehyde


OSHA Standards

Overview

Formaldehyde is common to the chemical industry. International production was over 46 billion pounds in 2004, according to the International Agency for Research on Cancer (IARC). It is well

[Highlights](#)



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<https://www.osha.gov/SLTC/formaldehyde/index.html>

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OSHA Recordkeeping Requirements

Employers with 10 or less employees and those within certain NAICS codes are not required to keep OSHA injury and illness records. Examples of NAICS codes exempted:

NAICS 5417 - Scientific Research and Development Services
NAICS 6113 - Colleges, Universities, and Professional Schools
NAICS 6215 - Medical and Diagnostic Laboratories

As of January 1, 2015, however, all employers must report:

1. All work-related fatalities within 8 hours.
2. All work-related in-patient hospitalizations, all amputations and all losses of an eye within 24 hours.



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Recordkeeping Rule

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OSHA's Recordkeeping Rule

Home Reporting Fatalities and Severe Injuries/Illnesses Who Keeps Records FAQs Additional Resources

The Occupational Safety and Health Administration's revised recordkeeping rule includes two key changes:

First, the rule updates the list of industries that are exempt from the requirement to routinely keep OSHA injury and illness records, due to relatively low occupational injury and illness rates. The previous list of industries was based on the old Standard Industrial Classification (SIC) system and injury and illness data from the Bureau of Labor Statistics (BLS) from 1996, 1997, and 1998. The new list of industries that are exempt from routinely keeping OSHA injury and illness records is based on the North American Industry Classification System (NAICS) and injury and illness data from the Bureau of Labor Statistics (BLS) from 2007, 2008, and 2009. Note: The new rule retains the exemption for any employer with ten or fewer employees, regardless of their industry classification, from the requirement to routinely keep records.

Second, the rule expands the list of severe work-related injuries that all covered employers **must report** to OSHA. The revised rule retains the current requirement to report all work-related fatalities within 8 hours and adds the requirement to report all work-related in-patient hospitalizations, amputations and loss of an eye within 24 hours to OSHA.

Establishments located in States under Federal OSHA jurisdiction must begin to comply with the new requirements on January 1, 2015. Establishments located in states that operate their own safety and health programs (State Plan States) should check with their state plan for the implementation date of the new requirements. OSHA encourages the states to implement the new coverage provisions on 1/1/2015, but some may not be able to meet this tight deadline.

The final rule will allow OSHA to focus its efforts more effectively to prevent fatalities and serious work-related injuries and illnesses. The final rule will also improve access by employers, employees, researchers and the public to information about workplace safety and health and increase their ability to identify and abate serious hazards.

As of January 1, 2015, all employers must report

- All work-related fatalities within 8 hours.
- All work-related inpatient hospitalizations, all amputations and all losses of an eye within 24 hours.

You can report to OSHA by

- Calling OSHA's free and confidential number at 1-800-321-OSHA (6742).
- Calling your closest [Area Office](#) during normal business hours.
- Using the new [online form](#).

Employers under Federal OSHA's jurisdiction must begin reporting by January 1. Establishments in a state with a



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<https://www.osha.gov/recordkeeping2014/index.html>

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OSHA Guidance for Laboratory Safety

- ☐ **2011 OSHA Guidance Document**
(<https://www.osha.gov/Publications/laboratory/OSHA3404laboratory-safety-guidance.pdf>) includes information on:
- Chemical Hazards
 - Biological Hazards
 - Physical Hazards
 - General Safety Hazards



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Other Federal Regulations and Guidance that Pertain to Labs

- ☐ **Guidance: Biosafety in Microbiological and Biomedical Laboratories (BMBL); NIH Guidelines**
- ☐ **Regulations: Biological Select Agents and Toxins (BSAT)**
- ☐ **Funding Requirements: NIH, DOD, and Other Federal Agencies through the National Policy Requirements Matrix (March 2017 Final Rule)**

NIH Grants Policy Statement 4.1.12 Health and Safety Regulations & Guidelines

“Recipients are responsible for establishing and implementing necessary measures to minimize their employees’ risk of injury or illness in activities related to NIH grants. In addition to applicable Federal, State, and local laws and regulations, the following regulations must be followed when developing and implementing health and safety operating procedures and practices for both personnel and facilities:”

- ☐ **29 CFR 1910.1030, Bloodborne Pathogens;**
- ☐ **29 CFR 1910.1450, Occupational Exposure to Hazardous Chemicals in Laboratories; and**
- ☐ **Other applicable OSHA Occupational and Health Standards included in 29 CFR 1910.**

Regulations available at

[http://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1910.](http://www.osha.gov/pls/oshaweb/owastand.display_standard_group?p_toc_level=1&p_part_number=1910)

2017 Final Rule: Standardized Terms and Conditions for Federally Funded Research

- ☐ NIH and DOD have specific language in their research grant and contract agreements that require compliance with OSHA regulations in order to receive funds.
- ☐ NSF Final Notice of Research Terms and Conditions ([82 FR 13660](#)) - standardized terms and conditions for federal research grants for many federal funding agencies, including:
 - NIH
 - NSF
 - USDA National Institute of Food and Agriculture (USDA/NIFA)
 - EPA
 - NASA
 - DOE
 - DHS
- ☐ Core requirements in the updated National Policy Requirements Matrix ([Appendix C](#)) specifically cites compliance with OSHA regulations as a core government-wide requirement for receiving federal research funds.

Standard Terms & Conditions for Federal Research Grants

One of the core requirements in the updated National Policy Requirements Matrix ([Appendix C](#)) of the new NSF rule

Statutory/Regulation/and Executive Based Requirements	Used For:			Requirement(s) that should be noted by the recipient
	Type of Award	Type of Recipient	Specific Situation	
d) Health & Safety Guidelines				
By signing the agreement or accepting funds under this agreement, the recipient assures it will comply with the following				
1. Applicable OSHA Standards in Laboratories	All	All	Research involving use of hazardous chemicals or bloodborne pathogens	29 CFR 1910.1030 Bloodborne Pathogens 29 CFR 1910.1450 Occupational Exposure to Hazardous Chemicals in Laboratories

OSHA State Plans

Twenty-eight states and territories operate their own occupational safety and health State Plans approved by OSHA and may have different and/or additional requirements. A list of State Plans is available at: <http://www.osha.gov/dcsp/osp/>.

Some State Plans have additional standards that may apply to laboratories, such as:

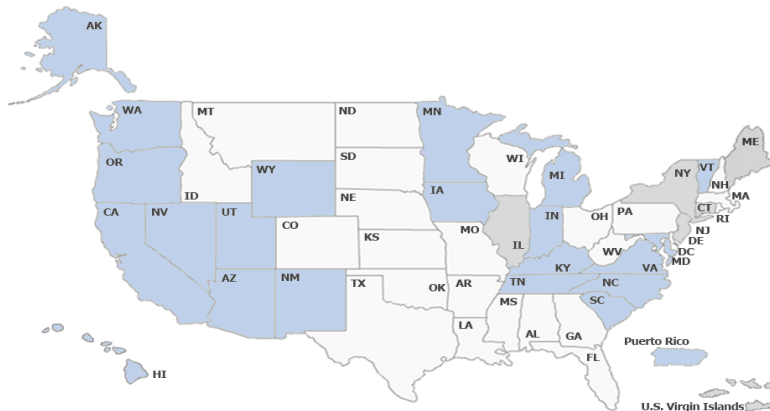
The California OSHA Aerosol Transmissible Diseases Standard promulgated in 2009.

Laboratories operating within State Plans are still required to follow state-specific regulations that are applicable to work within the laboratory.



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OSHA-Approved State Plans



- ☐ Twenty-six states, Puerto Rico, and the Virgin Islands have OSHA-approved State Plans.
- ☐ Twenty-two State Plans (21 states and one U.S. territory) cover both private and state and local government workplaces (including laboratories). [Blue]
- ☐ The remaining six State Plans (five states and one U.S. territory) cover state and local government workplaces (including laboratories) only. [Gray]



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States That Fall Under Federal OSHA Jurisdiction

Twenty-four states operate under federal OSHA oversight.

- ☐ State and local government laboratories do not have OSH Act protections except in the state plan states.
- ☐ All state and local government laboratories must comply with state and local regulations that are applicable to laboratories.
- ☐ Private laboratories have OSH Act protections in all states and territories.



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Whistleblower Protection Programs



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THE WHISTLEBLOWER Protection Programs



File a COMPLAINT

File a complaint if your employer has retaliated against you for exercising your [rights as an employee](#). In states with approved State OSHA Plans, employees may file a complaint under the OSH Act with both the [State](#) and [Federal OSHA](#). Under the other federal laws, a complaint

Know Your RIGHTS

OSHA's whistleblower statutes protect you from retaliation. An employer cannot retaliate by taking "adverse action" against workers who report injuries, safety concerns, or other protected activity.

Worker PROTECTIONS

Since passage of the OSH Act in 1970, Congress has expanded OSHA's whistleblower authority to protect workers from retaliation under twenty-two federal laws. Complaints must be reported to OSHA within set timeframes following the retaliatory action, as prescribed



<https://www.whistleblowers.gov/>

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OSHA Safe & Sound Campaign

- ❑ In 2017, OSHA initiated the Safe and Sound Campaign.
- ❑ Basic premise: Making workplaces safe is sound business.
- ❑ Nationwide campaign raises awareness and understanding of the value of safety and health programs that include management, worker participation, and a systematic approach to finding and fixing hazards in workplaces.
- ❑ Successful safety and health programs can proactively identify and manage workplace hazards before they cause injury or illness, improving sustainability and the financial bottom line.

Safe and Sound Campaign


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[Safe + Sound Campaign Home](#)
[Safety and Health Program Components](#)
[Making the Case for Safety and Health Programs](#)
[Getting Started at Your Workplace](#)
[Additional Resources](#)



Explore the Elements of Effective Safety and Health Programs

[Register now](#) for a free webinar on April 25th at 2pm EDT

Safe workplaces are sound businesses.

[Join the Safe +](#)

Safe and sound week



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SAFE + SOUND



Safe + Sound Week

Home

Step 1: Select your
activities

Step 2: Plan and
promote your events

Step 3: Recognize your
participation

Safe + Sound Campaign

Join us for Safe + Sound Week, August 13-19, 2018

What Is Safe + Sound Week?

A nationwide event to raise awareness and understanding of the value of safety and health programs that include management leadership, worker participation, and a systematic approach to finding and fixing hazards in workplaces.

Why Participate?

Safe workplaces are sound businesses. Successful safety and health programs can proactively identify and manage workplace hazards before they cause injury or illness, improving sustainability and the bottom line. Participating in Safe + Sound Week can help get your program started or energize an existing one.

Who Is Encouraged to Participate?

Organizations of any size or in any industry looking for an opportunity to show their commitment to safety to

SAVE THE DATE

**SAFE +
SOUND**
Week August 13-19, 2018

SHOW YOUR COMMITMENT TO SAFETY



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<https://www.osha.gov/safeandsoundweek/index.html>

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Safe & Sound Lab Partners



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Tier I Fact Sheet for ABSA



SHOW YOUR COMMITMENT TO SAFETY

ABSA International is a proud Partner of the national Safe + Sound Campaign. The Safe + Sound Campaign encourages every workplace in the U.S. to have a safety and health program, a proactive approach to identifying and managing workplace hazards before they cause injury or illness.

Successful programs include management leadership, worker participation, and a systematic process for finding and fixing hazards.

CORE ELEMENTS OF SAFETY AND HEALTH PROGRAMS

1. Management Leadership

2. Worker Participation

3. Finding & Fixing Hazards



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OSHA Voluntary Protection Program

- ☐ VPP recognizes employers with effective safety and health programs
- ☐ Management, Labor and OSHA work together in cooperative, proactive development of programs
- ☐ Employer submits application to OSHA and undergoes rigorous onsite evaluation
- ☐ Re-evaluation of program every 3-5 years
- ☐ VPP participants exempt from OSHA programmed inspections while maintaining VPP status



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OSHA Voluntary Protection Program



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Voluntary Protection Programs

The Voluntary Protection Programs (VPP) recognize employers and workers in the private industry and federal agencies who have implemented effective safety and health management systems and maintain injury and illness rates below national Bureau of Labor Statistics averages for their respective industries. In VPP, management, labor, and OSHA work cooperatively and proactively to prevent fatalities, injuries, and illnesses through a system focused on: hazard prevention and control; worksite analysis; training; and management commitment and worker involvement. To participate, employers must submit an application to OSHA and undergo a rigorous onsite evaluation by a team of safety and health professionals. Union support is required for applicants represented by a bargaining unit. VPP participants are re-evaluated every three to five years to remain in the programs. VPP participants are exempt from OSHA programmed inspections while they maintain their VPP status.



What's New

[Success Stories](#)

[SGE Program](#)

[VPP Resources](#)

[Partner Links](#)

[Cooperative Programs](#)



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<https://www.osha.gov/dcsp/vpp/index.html> 37

OSHA Safety and Health Achievement Recognition Program (SHARP)

- ☐ Recognizes excellence in small business' safety and health programs
- ☐ Recognizes small business employers who have used OSHA's On-site Consultation Program* services and who operate an exemplary injury and illness prevention program.


* OSHA's On-site Consultation Program offers free and confidential safety and occupational health advice to small and medium-sized businesses in all states across the country with priority given to high-hazard worksites.



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OSHA Safety and Health Achievement Recognition Program (SHARP)

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SHARP

Safety & Health Achievement Recognition Program (SHARP)

The program recognizes small business employers who have used OSHA's [On-Site Consultation Program](#) services and operate an exemplary safety and health program. Acceptance of your worksite into SHARP from OSHA is an achievement of status that singles you out among your business peers as a model for worksite safety and health.

[SHARP FAQ](#)
[Success Stories](#)
[SHARP Sites by State](#)
[SHARP Resources](#)
[Cooperative Programs](#)



[Job Safety and Health - It's the Law! \(PDF\)](#)
[A Spanish version \(PDF\) is also available.](#)

<https://www.osha.gov/dcsp/smallbusiness/sharp.html>

On-Site Consultation

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On-Site Consultation

[SHARP](#)
[Success Stories](#)
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[Cooperative Programs](#)



www.osha.gov/dcsp/smallbusiness/consult.html

Future Directions?

- Development of a Laboratory Safety and Health Topics Page
- Development of an **Occupational Exposure to Biological Hazards in Laboratories standard** to supplement the current lab standard (1910.1450)

Questions?

