

CHAPTER 7 – SAFETY TRAINING

GENERAL COMMENTS FOR INSTRUCTORS:

Safety training is required for employees exposed to any health or physical hazard at work. There are rules for providing safety training. Workers who have not received safety training cannot be expected to work safely.

Many MIOSHA standards require training, and many are outside of the scope of this manual. For example, ladder training, portable hand tools, powered industrial trucks... there are many more.

Regarding silica-based abrasives and substrates containing silica, attendees should be aware of the following MIOSHA standards that have a training component directly related to abrasive blasting operations:

- Silica Standard
- Hazard Communication/Right to Know
- Respiratory Protection
- Personal Protective Equipment
- Noise (General Industry/Maritime only training and posting requirement only)
- Employee Medical Records and Trade Secrets
- Depending upon substrate being blasted: Occupational Health Standards: Lead, Cadmium, Chromium VI, Chromium

AUDIO VISUAL AIDS:

- OSHA video: [Respiratory Protection Training Requirements](https://www.osha.gov/video/respiratory_protection/training.html) video. https://www.osha.gov/video/respiratory_protection/training.html Video in English and Spanish
- PowerPoint® Chapter 7

APPENDICES:

- Appendix III:
 - Appendix III-A: MIOSHA Silica in General Industry, Part 590
 - Appendix III-B: MIOSHA Silica in Construction, Part 690
- Appendix IV:
 - Appendix IV-D: MIOSHA Occupational Noise in Construction, Part 680
 - Appendix IV-E: MIOSHA Occupational Noise in General Industry, Part 380
- Appendix IX: MIOSHA Medical Records and Trade Secrets, Part 470
- Appendix XIV: Respiratory Protection Resources
 - Appendix XIV-A: MIOSHA Occupational Health Standard Part 451 – Respiratory Protection
 - Appendix XIV-B: MIOSHA Construction Safety and Health Fact Sheet: Respiratory Protection
 - Appendix XIV-C: MIOSHA CET Publication SP-05: Respiratory Protection -

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Sample Program

- Appendix XIV-D: MIOSHA Physician or Licensed Health Care Professional (PLHCP) Interpretation
 - Appendix XIV-E: Respirator Medical Questionnaire en Espanol
- Appendix XV: MIOSHA Personal Protective Equipment Resources
- Appendix XV-A: PART 6- Personal Protective Equipment, Construction Safety Standard -
 - Appendix XV-B: PART 33 - Personal Protective Equipment, General Industry Safety Standard
 - Appendix XV-C: PART 433- Personal Protective Equipment, General Industry Occupation Health Standard
 - Appendix XV-D: CET Publication SP#16: Personal Protective Equipment for General Industry
- Appendix XVI: Noise and Hearing Conservation Resources
- Appendix XVI-A: MIOSHA Consultation, Education and Training, Construction Fact Sheet – Noise, Publication #014
 - Appendix XVI-B: MIOSHA Consultation Education and Training Summary of Occupational Noise Standard, Publication 5600
 - Appendix XVI-C: Hearing Loss Prevention Publication #5620
 - Appendix XVI-D: MIOSHA Fact Sheet – Noise and Hearing
 - Appendix XVI-E: MIOSHA Consultation Education and Training – Noise Information and Training, Publication #5621
 - Appendix XVI-F: Pinnacle – Sample Hearing Conservation Program
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- Appendix XIV: Hazard Communication/Right To Know Resources
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 - Appendix XIV-B: Safety Data Sheet (SDS) Location Poster
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IF YOUR COMPANY USES SILICA ABRASIVES and/or YOU BLAST ON SILICA-CONTAINING SUBSTRATES YOU MUST:

Make sure you receive training regarding the hazards of working with silica.

Make sure you're told how to work safely with silica.

WHY ARE THESE STEPS IMPORTANT?

Safety training is the essential solution to making your workplace a safer place to work. No company should assign you to blast without first making sure you know the hazards of the job and how to do the job safely. You and your coworkers should be trained to work safely, and what the health effects may be if you don't. If your shop hasn't received effective training, no one can be expected to know how to work safely. **The more you know, the better you can protect yourself.**

SILICA STANDARD REQUIRED TRAINING

Both General Industry/Maritime and Construction employers are required to include respirable crystalline silica in their hazard communication program. Employees must be provided access to labels on containers of crystalline silica and safety data sheets, and must be trained in accordance with the provisions of the hazard communication standard. Silica standard employee training requires employers to ensure that each employee can demonstrate knowledge and understanding of at least the following:

- The health hazards associated with exposure to respirable crystalline silica, including cancer, lung effects, immune system effects and kidney effects
- Specific tasks in the workplace that could result in exposure to respirable crystalline silica
- Measures the employer has implemented to protect employees from exposure to respirable crystalline silica, including engineering controls, work practices, and respirators to be used
 - Work practice topics could include importance of proper equipment control and maintenance, housekeeping procedures, personal hygiene decontamination procedures, other personal protective equipment
- The contents of the education and training section of the silica standard
- The purpose and a description of the medical surveillance program required by the standard

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HAZARD COMMUNICATION TRAINING REQUIREMENTS

Employers must provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new chemical hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and safety data sheets.

- Your employer must inform you of:
 - The requirements of this section
 - Any operations in their work area where hazardous chemicals are present; and
 - The location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals, and safety data sheets required by this section
- Your employer must provide training to you covering at least these topics:
 - Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.)
 - The physical, health, simple asphyxiation, combustible dust, and pyrophoric gas hazards, as well as hazards not otherwise classified, of the chemicals in the work area
 - The measures you can take to protect yourself from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and
 - The details of the hazard communication program developed by the employer, including an explanation of:
 - the labels received on shipped containers and the workplace labeling system used by their employer
 - the safety data sheet, including the order of information and how employees can obtain and use the appropriate hazard information

⇒ **General Industry employers:**

- Hazard Communication is a once and done training per employee, unless other chemicals or hazardous materials are introduced into the workplace.

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MIOSHA Hazard Communication Training Assistance for Employers

MIOSHA has several resources to assist employers to provide hazard communication training.

- Hazard Communication Employee Training Program 2013 - [PPT](#) modifiable version with speaker notes. ([Recorded webinar version of Hazard Communication Employee Training presentation](#))
- Hazard Communication Employee Training - Narrated PowerPoint Modules
NOTE: This Hazard Communication Employee Training program has been divided into three modules for use as "toolbox" talks and to reduce download file size. The modules are best viewed using Mozilla Firefox or Google Chrome. If the narrated presentation of the module does not automatically start the slide show, select the slide show button in the lower right of the PowerPoint program to automate the program.

[Module 1: Overview and Classification](#) - 10 minutes - (Recorded voice over PowerPoint)

[Module 2: Labels](#) - 14 minutes - (Recorded voice over PowerPoint)

[Module 3: Safety Data Sheets \(SDSs\)](#) - 13 minutes - (Recorded voice over PowerPoint)

- [LESS DVD/Video Lending Library](#) currently has two DVD's on GHS that you can request on loan: GHS Globalize Your Communication #1072 & HazCom And The Global Harmonizing System: Employee Training #1068

RESPIRATORY PROTECTION TRAINING REQUIREMENTS

Employers must provide effective training to employees who are required to use respirators. The training must be comprehensive, understandable, and recur annually, and more often if necessary. If you wear a respirator, your employer must provide the training prior to requiring you to use a respirator in the workplace. The employer must also provide the basic information on respirators in Appendix D of the Respirator standard to employees who wear respirators when not required by this section or by the employer to do so.

The employer must ensure that each employee can demonstrate knowledge of at least the following:

- why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator
- what the limitations and capabilities of the respirator are

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- how to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions
- how to inspect, put on and remove, use, and check the seals of the respirator
- what the procedures are for maintenance and storage of the respirator
- how to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and
- general requirements of this section

Retraining shall must be administered annually, and when the following situations occur:

- changes in the workplace or the type of respirator render previous training obsolete
- inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or
- any other situation arises in which retraining appears necessary to ensure safe respirator use

PERSONAL PROTECTIVE EQUIPMENT

An employer must provide training to each employee who is required to use personal protective equipment. The training must include all of the following:

- when and why personal protective equipment is necessary
- what personal protective equipment is necessary
- how to properly don, doff, adjust, and wear the personal protective equipment
- limitations of the personal protective equipment
- proper care, maintenance, useful life, and disposal of the personal protective equipment

Each affected employee shall demonstrate an understanding of the above training and the ability to use the equipment properly before being allowed to perform work requiring the use of personal protective equipment. When an employer has reason to believe that any affected employee who has already been trained does not have the understanding and skill required by this rule, the employer shall retrain the employee. The occurrence of any of the following circumstances requires retraining:

- changes in the workplace that render previous training obsolete
- changes in the types of personal protective equipment to be used that render previous training obsolete
- inadequacies in an affected employee's knowledge or use of assigned personal protective equipment which indicate that the employee has not retained the requisite understanding or skill

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OCCUPATIONAL NOISE TRAINING REQUIREMENTS (GENERAL INDUSTRY/MARITIME ONLY)

The employer shall train each employee who is exposed to noise at or above the action level in accordance with the requirements of these rules. The employer shall institute a training program and ensure employee participation in the program. The training program shall be repeated annually for each employee included in the hearing conservation program. Information provided in the training program shall be updated to be consistent with changes in protective equipment and work processes. The employer shall ensure that each employee is informed of all of the following:

- effects of noise on hearing
- purpose of hearing protectors; the advantages, disadvantages, and attenuation of various types of hearing protectors; and instructions on the selection, fitting, use, and care of hearing protectors
- purpose of audiometric testing, and an explanation of the test procedures

NOTE: Employers are required to post a copy of the MIOSHA Occupational Health Standard, Part 380 – Occupational Noise Exposure in the workplace if a hearing conservation program is required.

⇒ **Construction employers do not have a training requirement, although, we highly recommend construction employers develop and implement a hearing conservation program and provide employee training modeled on the General Industry Occupational Noise Standard.**

EMPLOYEE MEDICAL RECORDS AND TRADE SECRETS

Upon an employee's first entering into employment, and at least annually thereafter, an employer must inform employees who are exposed to toxic substances or harmful physical agents of all of the following:

- existence, location, and availability of any record to which these rules apply
- person who is responsible for maintaining and providing access to records
- employee's right of access to the records

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RECORD KEEPING

All employers should keep document attendance, dates of all employee training and training material and retain the records.

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Notes