

Occupational Noise Exposure

Description:

OSHA's occupational noise exposure standard requires that employers measure noise levels within workplaces where noise levels can be reasonably expected to be at or above an 8-hour time-weighted average of 85 decibels. When employees are subjected to sound exceeding that level, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce sound levels within the levels of Table G-16 in the standard, personal protective equipment shall be provided and used to reduce sound levels within the levels of the table.

Regulatory Reference

29 CFR § 1910.95 Occupational noise exposure.

Applies to:

The occupational noise exposure standard applies to workplaces and employee tasks where sound levels exceed 85 decibels on a sustained basis that cannot be reduced by engineering controls or workplace rules and procedures. In most propane industry operations the standard does not apply. However, some employees such as fleet mechanics using compressed air tools, service personnel engaged in construction activities such as operating a jack hammer to install gas distribution piping, or employees working near loud equipment may be affected.

General Requirements:

If sound levels in a workplace exceed the 85 decibel time-weighted average (TWA) or employees are exposed to noise in excess of the levels listed in the OSHA standard, the employer must attempt to apply engineering controls or administrative procedures that will reduce employee noise exposure to levels that are not hazardous to employees' hearing. If engineering controls and administrative controls are not effective in reducing the noise hazard, an employee hearing conservation program must be implemented, including the use of personal protective equipment for employees. Employer programs must include the following elements:

- (1) **Monitoring.** When information indicates that any employee's exposure may equal or exceed an 8-hour time-weighted average of 85 decibels, the employer shall develop and implement a monitoring program. Monitoring shall be repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that:
 - (a) additional employees may be exposed at or above the action level; or
 - (b) protection provided by hearing protectors being used by employees may be rendered inadequate to meet the requirements of paragraph (j) of § 1910.95.
- (2) **Employee notification.** The employer shall notify each employee exposed at or above an 8-hour time-weighted average of 85 decibels of the results of the monitoring.
- (3) **Observation of monitoring.** The employer shall provide affected employees or their representatives with an opportunity to observe any noise measurements conducted in compliance with the OSHA occupational noise standard.

- (4) Audiometric testing program. The employer shall establish and maintain an audiometric testing program as provided in the regulation by making audiometric testing available to all employees whose exposures equal or exceed an 8-hour time-weighted average of 85 decibels. The program shall be provided at no cost to employees. Audiometric tests shall be performed by a licensed or certified audiologist, otolaryngologist, or other physician, or by a technician who is certified by the Council of Accreditation in Occupational Hearing Conservation, or who has satisfactorily demonstrated competence in administering audiometric examinations, obtaining valid audiograms, and properly using, maintaining and checking calibration and proper functioning of the audiometers being used.
- (5) Baseline audiogram. Within 6 months of an employee's first exposure at or above the action level, the employer shall establish a valid baseline audiogram against which subsequent audiograms (for the employee) can be compared.
- (6) Annual audiogram. At least annually after obtaining the baseline audiogram, the employer shall obtain a new audiogram for each employee exposed at or above an 8-hour time-weighted average of 85 decibels. Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift as defined in paragraph (g)(10) of the OSHA has occurred.
- (7) Follow-up procedures. If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift as defined in paragraph (g)(10) of the standard has occurred, the employee shall be informed of this fact in writing, within 21 days of the determination. Additional steps set out in the standard must be taken to determine how to protect the employee if a hearing professional determines that the audiogram change from the baseline is due to workplace noise exposure.
- (8) Hearing protectors. Employers shall make hearing protectors available to all employees exposed to an 8-hour time-weighted average of 85 decibels or greater at no cost to the employees. Hearing protectors shall be replaced as necessary, and employers shall ensure that employees exposed to occupational noise in excess of the standard level wear hearing protectors.
- (9) The employer shall provide training in the use and care of all hearing protectors provided to employees. Employees shall be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors provided by the employer. The employer shall ensure proper initial fitting and supervise the correct use of all hearing protectors.

Training Requirements:

- (1) The employer shall institute a training program for all employees who are exposed to noise at or above an 8-hour time-weighted average of 85 decibels, and shall ensure employee participation in such program.
- (2) 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.
- (3) The employer shall ensure that each employee is informed of the following:
 - (a) the effects of noise on hearing;
 - (b) the purpose of hearing protectors, the advantages, disadvantages, and range of effectiveness of various types, and instructions on selection, fitting, use, and care; and
 - (c) the purpose of audiometric testing, and an explanation of the test procedures.

Maintenance and Review

If an employer has reason to believe that workplace noise levels exceed the OSHA standard, the employer should have a noise survey conducted as prescribed in 29 CFR § 1910.95. If levels in excess of 85 decibels TWA are found, the provisions of a hearing conservation program should be implemented.

Documentation of workplace noise level monitoring, and employee audiograms, training records, and other program records must be kept. In addition, implementation of the following required steps should be documented.

- (1) Access to information and training materials. The employer shall make available to affected employees or their representatives copies of this standard and shall also post a copy in the workplace.
- (2) The employer shall provide to affected employees any informational materials pertaining to the standard that are supplied to the employer by the OSHA.
- (3) The employer shall provide, upon request, all materials related to the employer's training and education program pertaining to this standard to OSHA representatives.

Additional Information and Resources

Appendix A to §1910.95 Noise Exposure Computation (Non-Mandatory)

Appendix B to §1910.95 Methods for Estimating the Adequacy of Hearing Protector Attenuation (Mandatory)

Appendix C to §1910.95 Audiometric Measuring Instruments (Mandatory)

Appendix D to §1910.95 Audiometric Test Rooms (Mandatory)

Appendix E to §1910.95 Acoustic Calibration of Audiometers (Mandatory)

Appendix F to §1910.95 Calculations and Application of Age Corrections to Audiograms (Non-Mandatory)

Appendix G to §1910.95 Monitoring Noise Levels (Non-Mandatory)

Appendix H to §1910.95 Availability of Referenced Documents

Appendix I to §1910.95 Definitions