Hearing Conservation Stats and Facts

DID YOU KNOW?

The goal of the Occupational Safety and Health Administration's (OSHA) hearing conservation standard (29 CFR 1910.95) is to protect the approximate 22 million workers that are exposed to hazardous levels of noise each year. Through the hearing conservation standard, employers are required to evaluate workplaces for employee exposures resulting in a personal time-weighted average (TWA) equal to or greater than 85 decibels (dBA). Results at or above this noise action level require the employer to develop a written Hearing Conservation Program, provide employees with protective devices, provide annual training, and conduct annual hearing tests to monitor hearing levels. Employees who experience a work-related hearing shift are required to be recorded on the facility's OSHA 300 log.

Who Is Required To Have A Hearing Conservation Program?

The first step in complying with the hearing conservation standard is to complete an evaluation of the facility noise levels. This assessment should be completed by taking personal time-weighted average (TWA) samples throughout the facility, even in areas that may not appear to be particularly noisy. Noise sampling should be completed every three to five years, or at any time there is a change in facility processes or equipment.

The hearing conservation standard sets two action levels: 85 dBA and 90dBA. Employees working in areas of exposure between 85-89dBA shall be provided hearing protectors, receive annual audiograms, and receive annual training. Employees exposed to TWAs of 90dBA or above shall also be required to wear hearing protectors, receive annual audiograms, and receive annual training. The main

difference between the two action levels within the hearing conservation standard is that employees working within the range of 85-89dBA may choose whether or not to wear hearing protection, while employees working within ranges of 90dBA or greater must wear hearing protection. It is important to note that while employees exposed to less than 90dBA may choose not to wear hearing protectors, any hearing loss would still qualify as a recordable injury.

Hearing Conservation Program Requirements

When employees are exposed to noise levels at an 8-hour TWA of 85dBA or more, the employer must implement an audiometric testing program. This program must be provided at no cost to the employee and must consist of a baseline audiometric test and an annual audiometric test.

The baseline audiometric test must be completed within the first six months after the employees' exposure to hazardous noise levels.

If a mobile van will be used to conduct the audiometric test, then the baseline test must be obtained within one year from the employees' exposure to hazardous noise levels.

Audiometric testing must be completed annually after the baseline test. The results of the annual test are compared to the result of the baseline test to determine if the employee has experienced a standard threshold shift (STS).

A STS is a change in the hearing threshold of an average of 10 decibels or more at 2000, 3000, and 4000 hertz in one or both ears.

If an STS is identified, the employer has 30 days to retest the employee to determine if the STS was valid. If there is a confirmed STS, the employer must notify the employee of the finding in writing within 21 days.

After experiencing an STS, an employee is required to wear hearing protectors. Training, or retraining, must also be completed.

Employees exposed to hazardous levels of noise must be provided hearing protection and replacements at no cost. The employer is required to provide multiple suitable options of hearing protectors including one type of earplug and one type of earmuff. It would be preferable to include more options for employees to ensure comfort, proper fit, and usage.

Hearing protectors are required to decrease the employee noise exposure to at least an 8-hour time-weighted average of 90dBA. The noise reduction ratio (NRR) is the unit of measure to determine the effectiveness of hearing protectors. The higher the NRR, the higher potential for noise reduction. It is important to know that the NRR does not represent a direct reduction in decibels. To determine the noise reduction capability of a specific hearing protector, you must take the NRR in decibels, subtract seven, and then divide by two.

Often referred to as the “invisible disability,” the Centers for Disease Control (CDC) shares these somber statistics about hearing loss and impairment:

- In the United States, hearing loss is the third-most common chronic physical condition among adults after hypertension and arthritis.
- About 12% of the U.S. working population has hearing difficulty.
- About 24% of the hearing difficulty among U.S. workers is caused by occupational exposures.
- About 8% of the U.S. working population has tinnitus (ringing in the ears), and 4% of workers have both hearing difficulty and tinnitus.

Fortunately, noise-induced hearing loss can be reduced, or often eliminated, through the execution of a successful hearing conservation program (HCP) that benefits both the employer and the employee.