How to Mitigate the Effects of Noise Created by Tools and Heavy Equipment in the Workplace



Approximately 22 million workers in the United States are exposed to potentially damaging noises every year.

While some careers naturally come with more noise than others (such as jobs at a sports venue, tarmac, or factory), there are still ways for employers to prevent issues like hearing loss among their team members.

Some of the most effective strategies for mitigating harm caused by excessive noise are discussed below.

Workplace Noise Regulations

The Occupational Safety and Health Administration (OSHA) has established specific standards regarding noise exposure in the workplace.

For example, OSHA says that employers must implement hearing conservation programs when noise exposure reaches or exceeds an average of 85 decibels in an eight-hour period. These programs are meant to prevent hearing loss, protect remaining hearing, and educate employees on proper safeguards.

Common Sources of Workplace Noise

Workplace noise can come from several sources, including heavy machinery and tools like drills, compressors, and even music or crowds (this is the case at sports and concert venues).

To identify all sources of noise problems in a facility, employers must measure the noise generated from each source individually. When noise levels exceed 80 dB (the sound of a heavily trafficked street), people are at risk of hearing loss and other injuries.

Reasons to Reduce Workplace Noise

Continuous exposure to loud and irritating noises can, understandably, harm a person?s hearing and contribute to hearing loss. However, other issues can also arise from prolonged exposure, including the following:

- Headaches
- Increased blood pressure
- Fatigue
- Irritability
- Poor digestion
- Sleep disruptions
- Weakened immune system and increased susceptibility to colds and other infections

Some of these health effects, such as high blood pressure and a weakened immune system, can lead to other serious health problems (like heart attacks and strokes) if they?re not rectified quickly.

Noise Mitigation Best Practices

Employers can take many steps to reduce noise in factories and other facilities. The following are some of the most effective practices they can implement:

Invest in New Materials and Equipment

When possible, employers should consider investing in new equipment and materials. Many modern options come with superior noise-reducing features and can minimize the total sound level of their facility.

If searching for low-noise equipment, employers should take these additional steps to ensure they?re making wise purchases:

- Request a statement from the manufacturer stating that their machinery will meet the company’s noise target specification.
- Only purchase from suppliers who can demonstrate low-noise design.
- Ensure noise specifications are met when the machinery is delivered and installed.

A quieter version of equipment may not always be available. However, when it?s an option to switch to a low-noise option, employers should try to follow through with the investment.

Maintain Machinery

When employers can?t afford to replace equipment (or can?t find a suitable, low-noise replacement), they can still mitigate noise in the workplace by maintaining existing machinery.

Regular maintenance, especially lubrication, can keep equipment working correctly and minimize the amount of noise produced. It also increases the lifespan of equipment and improves employee safety.

Employers should create a maintenance schedule for all equipment and machinery in their facility. They should also share this schedule with other key team members to ensure it?s followed and that no critical tasks get overlooked.

Create Sound Barriers

If the majority of the workplace?s noise comes from one area, employers can protect their team members by installing sound barriers around those locations.

Sound barriers placed around the perimeter of a particular area can protect employees

working in other areas. As a bonus, they can also minimize noise that escapes from the work site (which can reduce noise pollution in the entire community).

Offer Noise-Reducing Personal Protective Equipment

Employers should ensure all workers have access to noise-reducing personal protective equipment (PPE). Earmuffs and earplugs are two of the most popular and effective options.

Earplugs are convenient because of their size and portability. However, since they?re worn inside the ear canal, they can present hygiene issues (employees should always use new earplugs to minimize this potential problem).

Earplugs are not very effective against extreme noises. In those cases, earmuffs may be a better choice.

Earmuffs can be divided into two categories:

- **Passive hearing protection**: These earmuffs are practical and cost-effective. They work best in situations without specific communication requirements.
- **Communication or electronic hearing protection**: This option includes features that allow employees to communicate with each other while on the job site. Some use Bluetooth technology, whereas others rely on a cable connection.

Employers may want to experiment with different options to choose the best fit for their team and work environment.

Provide Proper Training

Employees should receive sufficient training on protecting themselves from hearing damage. They should learn about the risks associated with prolonged noise exposure and their options for mitigating those risks.

Listed below are some examples of protocols employers may implement and share during training:

- Operate noisy machines during shifts to reduce the number of people exposed
- Limit the amount of time employees spends at specific noise sources
- Require breaks and provide quiet areas to relieve employees from hazardous noise sources

Training regarding hearing protection and noise reduction should start during the onboarding process. All employees should also receive periodic reminders to ensure they continue abiding by the rules and protecting their health and hearing.

Educate on the Symptoms of Hearing Damage

Employers should make sure employees are educated on the symptoms of hearing damage as well.

The following are some of the most well-known symptoms to watch for:

- Speech and other sounds are muffled
- They have trouble understanding words, particularly in crowded/noisy places
- Difficulty hearing non-vowel sounds
- Frequently requesting that people speak more slowly, clearly, or loudly
- Often turning up the volume on television or radio
- Ringing in the ears (tinnitus)

Employees who experience any of these symptoms should be instructed to report and seek help immediately.

Increase Workplace Safety by Prioritizing Noise Reduction

When employers commit to workplace safety and prioritize noise reduction in their facilities, they protect their employees and reduce the risk of long-term health impacts. They can also improve employee productivity and reduce absenteeism rates by taking care of workers.

Source: ÿwww.plant-tours.com