

SAFETY AWARENESS

Brief Topic Safety Refresher Training For Associates

2024

Hearing Protection

According to the American Journal of Industrial Medicine, around 46% of all workers in manufacturing have been exposed to hazardous noise at some point during their employment. Things like rotors, power tools, stators, gears, fans, impact processes and electrical machinery can all generate significant levels of noise, which, in turn, can negatively impact your hearing.

Prolonged exposure to excessive noise is particularly dangerous and can lead to tinnitus, which is characterized by ringing, buzzing and roaring in the ears. In some cases, harmful levels of noise can lead to permanent hearing loss.

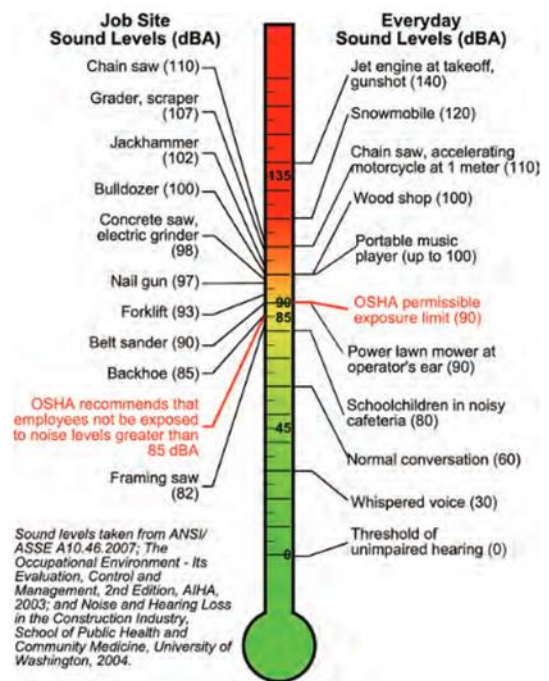
To keep employees safe, the Occupational Safety and Health Administration (OSHA) has specific regulations related to workplace noise exposure. This Safety Matters provides a general overview of these regulations and ways you can stay safe on the job.

OSHA's Noise Permissible Exposure Limit (PEL)

Noise is measured in units of sound pressure levels called decibels (dB). Often, decibels are expressed as dBA, which refers to A-weighted sound levels. Essentially, this measurement is more specific than dB alone, as it accounts for relative loudness perceived by the human ear.

There are two specific noise measurements to keep in mind when it comes to hearing protection and workplace safety—the action level and permissible exposure limit (PEL):

1. **Action level**—For noise, OSHA's action level is 85 dBA averaged over an eight-hour workday. When workplace noise reaches this level, employers are required to implement a hearing conservation program and offer hearing protection.
2. **PEL**—Per OSHA, the PEL for noise is 90 dBA over an eight-hour workday. At this level, employees are required to wear hearing protection. In addition, for every 5 dBA above the action level, the duration of employee exposure to noise must be cut in half (e.g., 85 dBA/eight hours, 90 dBA/four hours, 95 dBA/two hours). Furthermore, exposure to noise should not exceed 140 dBA.



The above chart provides an overview of common sources of workplace noise and their accompanying dBA levels. Source: OSHA.

