

Industrial hygiene, safety and environmental consulting services

(630)654-2550

MONTHLY SAFETY BRIEF: HEARING CONSERVATION & NOISE BASICS

In our role as EHS consultants, we find ourselves in all sorts of environments, many of them very loud. Engine rooms, manufacturing areas, fan rooms, construction sites and many others all typically can have a variety of significant noise sources. In most cases, our exposures are relatively brief, and we should be protecting ourselves with hearing protection, per our program. On occasion, some of us must work a full shift or more in loud areas and should be very diligent about donning proper hearing protection.

This safety brief provides some of the key elements of our hearing conservation program as well as good information to know about noise. As always, if you have any concerns about noise exposure in your work environments, please let your Project Manager know right away so your issue can be addressed.

Background Information on Noise

Exposure to high levels of noise can cause permanent hearing loss. Short term exposure to loud noise can also cause a temporary change in hearing or a ringing in your ears. These short-term problems may go away within a few minutes or hours after leaving the noise. However, repeated exposures to loud noise can lead to reduced or permanent hearing loss.

Loud noise can create physical and psychological stress, reduce productivity, interfere with communication and concentration, and contribute to workplace accidents and injuries by making it difficult to hear warning signals. The effects of noise induced hearing loss can be profound, limiting your ability to hear high frequency sounds, understand speech, and seriously impairing your ability to communicate.

The OSHA Action Level (AL) for noise is 85 dBA and the OSHA Permissible Exposure Limit (PEL) is 90 dBA, both measured over an 8-hour time weighted average (TWA).

Hearing protectors must be chosen based on their attenuation for the specific noise environment in which they are used. Noise Reduction Ratings (NRRs) are used to evaluate the adequacy of hearing protectors. The hearing protector of choice must attenuate the sound pressure levels below 85 dBA. In most of our cases, simple foam inserts worn properly will do the trick.

Key Points from the Hygieneering Hearing Conservation Program

- Your Project Manager should let you know if hearing protection is needed on a job you are assigned. This information should be conveyed to you in the pre-job assignment discussion.
- Hygieneering staff will abide by the hearing protection requirements of our clients. Hearing protection is required to be worn in all client areas marked as a hearing conservation area. Hearing protection shall be worn, even if only in the area for short durations.
- Hygieneering will conduct periodic personal noise dosimetry on a variety of projects/locations to • evaluate worker exposure to noise. If you would like your exposure monitored during a specific project, just let vour Project Manager know.
- Employees may select their hearing protectors from a variety of suitable hearing protection devices provided by Hygieneering at no cost.
- As a Hygieneering field employee, you should understand all of the following and if not, please contact your Project Manager:
 - The procedures for maintenance and storage of hearing protection.
 - The health implications of not wearing hearing protection in the proper manner.



- How improper fit, usage, and/or maintenance can compromise the protective effect of the hearing protection.
- The advantages, disadvantages, and attenuation of various types of hearing protection, and instructions on selection and fitting (i.e. proper insertion of earplugs, ensuring a good ear muff seal around the ear).



HEARING CONSERVATION & NOISE BASICS QUIZ

- 1. Exposure to loud noise can cause which of the following:
 - a. physical and psychological stress
 - b. reduce productivity
 - c. interfere with communication and concentration
 - d. contribute to workplace accidents and injuries
 - e. all the above
- 2. What is the OSHA action level (AL) for noise levels?
 - a. 75 dBA
 - b. 85 dBA
 - **c**. 90 dBA
 - d. 95 dBA
- 3. What is the OSHA permissible exposure limit (PEL) for noise levels?
 - a. 80 dBA
 - b. 85 dBA
 - c. 90 dBA
 - d. 95 dBA
- 4. Hygieneering field staff employees will follow the Hearing Conservation Programs assigned to each specific jobsite.
 - True
 - □ False
- 5. Hearing protection is NOT required to be worn in all client areas marked as a hearing conservation area.
 - □ True
 - □ False
- 6. Foam insert hearing protectors are appropriate for all noise environments.
 - □ True
 - □ False

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SCORE: PASS / FAIL

Employee Signature

Supervisor Signature

Date