

- The attenuation provided by hearing protectors being used by employees may be rendered inadequate.

Employees will be notified of the sampling results after completion of the evaluation.

Audiometric Testing

Audiomet
opportunity to educate employees about their hearing and the need to protect it.

Audiometric testing will be provided at no cost to all employees whose exposures equal or exceed an 8-hour time-weighted average of 85 decibels. See Appendix B for audiometric test requirements.

Within six months of assignment, new employees assigned to affected job tasks will receive the initial baseline audiometric test against which subsequent audiograms can be compared.

A new audiogram will be obtained at least annually while a part of the Hearing Conservation Program.

Standard threshold shift

A standard threshold shift is a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear.

In determining whether a standard threshold shift has occurred, allowance may be made for the contribution of aging (presbycusis) to the change in hearing level by correcting the annual au
Appendix F: "Calculation and Application of Age Correction to Audiograms."

Engineering, Work Practice, and Administrative Controls

When levels that exceed 85 dBA TWA are found, all reasonable efforts will be made to use administrative and/or engineering controls to reduce exposure.

Hearing Protectors

Hearing protectors are 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.

Hearing protectors must be worn by all employees exposed:

- At levels shown in Table 1, Permissible Noise Exposures, below.

Access to Information and Training Materials

The Occupational Noise Standard, 29 CFR 1910.95 and its attachments A-I, are available in the following locations:

- posted on bulletin boards in the affected departments
- the OSHA website: <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.95>.
- The EHS Department; contact them for a copy

Material used for training will be available upon request, to personnel from regulatory agencies.

Recordkeeping

Results of audiometric te

on of employment.

Noise monitoring results will be maintained for at least two years.

APPENDIX A GLOSSARY OF TERMS

A Weighting The weighting scale that closely matches the perception of loudness by the human ear.

Action Level - An 8-hour time-weighted average of 85 decibels measured on the A-scale, slow response, or equivalently, a dose of fifty percent.

Audiogram - A chart, graph, or table resulting from an audiometric test showing an individual's hearing threshold levels as a function of frequency.

Audiologist - A professional, specializing in the study and rehabilitation of hearing, who is certified by the American Speech-Language-Hearing Association or licensed by a state board of examiners.

Baseline Audiogram - The audiogram against which future audiograms are compared.

Criterion Sound Level - A sound level of 90 decibels.

Decibel (dB) - Unit of measurement of sound level. Decibels are measured on a logarithmic scale which means that a small change in the number of decibels results in a huge change in the amount of noise and the potential damage to a person's hearing.

Exchange Rate, 5 dB - When the noise level is increased by 5 dBA, the amount of time a person can be exposed to a certain noise level to receive the same dose is cut in half.

Hertz (Hz) - Unit of measurement of frequency, numerically equal to cycles per second.

Medical Pathology - A disorder or disease. For purposes of this regulation, a condition or disease affecting the ear, which should be treated by a physician specialist.

Noise Dose - The ratio, expressed as a percentage, of (1) the time integral, over a stated time or event, of the 0.6 power of the measured SLOW exponential time-averaged, squared A-weighted sound pressure and (2) the product of the criterion duration (8 hours) and the 0.6 power of the squared sound pressure corresponding to the criterion sound level (90 dB).

Noise Dosimeter - An instrument that integrates a function of sound pressure over a period of time in such a manner that it directly indicates a noise dose.

OSHA Standard 29 CFR 1910.95, Occupational Noise and Vibration

Representative Exposure -

Unless a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure, the employer shall ensure that the following steps are taken when a standard threshold shift occurs:

- Employees not using hearing protectors shall be fitted with hearing protectors, trained in their use and care, and required to use them.
- Employees already using hearing protectors shall be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary.
- The employee shall be referred for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if the employer suspects that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.
- The employee is informed of the need for an otological examination if a medical pathology of the ear t

audiometer's output to make sure that the output is free from distorted or unwanted sounds. Deviations of 10 decibels or greater require an acoustic calibration.

- Audiometer calibration shall be checked acoustically at least annually in accordance with the Appendix E: "Acoustic Calibration of Audiometers." Test frequencies below 500 Hz and above 6000 Hz may be omitted from this check. Deviations of 15 decibels or greater require an exhaustive calibration.
- An exhaustive calibration shall be performed at least every two years in accordance with sections 4.1.2; 4.1.3.; 4.1.4.3; 4.2; 4.4.1; 4.4.2; 4.4.3; and 4.5 of the American National Standard Specification for Audiometers, S3.6-1969. Test frequencies below 500 Hz and above 6000 Hz may be omitted from this calibration.