**Hearing Conservation Program**

**29 CFR 1910.95—Occupational Noise Exposure**

***Scope & Application:*** *This standard applies when employees are exposed to high noise levels.*

*The following standard is referenced in 29 CFR 1910.95—Occupational Noise Exposure:*

* *29 CFR 1910.1020—Access to Employee Exposure and Medical Records*

***Note:*** *29 CFR 1910.1020—Access to Employee Exposure and Medical Records requires medical records to be retained for duration of employment plus 30 years and exposure records for 30 years.*

*The following standard references 29 CFR 1910.95—Occupational Noise Exposure:*

* *29 CFR Part 1904.10—Recording Criteria For Cases Involving Occupational Hearing Loss*

***Note:*** *29 CFR Part 1904.10—Recording Criteria for Cases Involving Occupational Hearing Loss requires recording a hearing loss on the OSHA 300 log.*

***Standard Requirements for*** [***29 CFR 1910.95***](https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.95)***—Occupational Noise Exposure:***

* ***Programs/Plans:*** *Hearing Conservation Program, Training Program, Monitoring Program*
* ***Procedures/Practices:*** *Follow-up procedures, test procedures, exposure monitoring (Include in your Hearing Conservation Program)*
* ***Training:*** *Initially, annually*
* ***Inspections:*** *None required*
* ***Recordkeeping/Documentation:*** *Exposure measurements, audiometric test records, training materials, occupational noise exposure standard posted*

***Note:*** *The Hearing Conservation Program, Training Program, and Monitoring Program required by 29 CFR 1910.95***—***Occupational Noise Exposure can be incorporated into one program.*

***Example Program:*** *The following example program should be modified to be site-specific to your organization. Please reference 29 CFR 1910.95***—***Occupational Noise Exposure to ensure that all requirements are being met. The example Hearing Conservation Program incorporates the Training Program and Monitoring Program for ease of use. The standard does not require a written Hearing Conservation Program.*

**Hearing Conservation Program**

All employees who are exposed at or above 85 dBA as an 8-hour time-weighted average (TWA) will be included in a hearing conservation program. Monitoring will be repeated whenever a change in production, process, equipment or control increases noise exposure to the extent that:

* The attenuation provided by the hearing protectors being used by the employees may be rendered inadequate. A complete sound survey will be conducted every \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

For noise levels exceeding 90 dBA, mandatory hearing protection and engineering and administrative control measures will be utilized to reduce employee exposures. Additional for noise levels exceeding 85 dBA, where employees have not yet received a baseline audiogram or have experienced a standard threshold shift shall utilize hearing protection.

Under the current OSHA standard, all workers exposed to 85 dBA as an 8-hour TWA are to be included in a hearing conservation program. It is important to note that for work shifts in excess of eight hours, the 85 dBA TWA is reduced. For example, exposures in excess of 83.4 dBA for a 10-hour work shift and exposures in excess of 82.1 dBA for a 12-hour work shift necessitate inclusion in a hearing conservation program.

**Exposure Monitoring**

An ongoing noise exposure evaluation program is required under 29 CFR 1910.95**—**Occupational Noise Exposure when information indicates that any employee’s exposure may equal or exceed an 8-hour time-weighted average of 85 dBA. Monitoring will be repeated whenever a change in production, process, equipment or control increases noise exposure to the extent that:

* Additional employees may be exposed at or above the action level.
* The attenuation provided by the hearing protectors being used by the employees may be rendered inadequate. Noise exposure monitoring and a complete sound survey of the company is recommended at least every two years.

If it is determined through noise monitoring that employee are exposed at or above 85 dBA as an 8-hour time-weighted-average, then the employees must be provided with:

* Annual hearing tests.
* Annual hearing conservation training.
* Hearing protection.
* Posting the 29 CFR 1910.95**—**Occupational Noise ExposureStandard.
* Notification of the results of the sound survey and/or monitoring.

If the noise level exceeds 90 dBA, the standard requires that engineering and administrative control measures must be investigated, evaluated and, where feasible, utilized to reduce employee exposures. It is important that any measure investigated, utilized or evaluated to reduce the noise levels be documented. Hearing protection is mandatory for employees exposed at or above 90 dBA as an 8-hour TWA. Hearing protection is also mandatory for employees exposed at or above 85 dBA as an 8-hour TWA if they have not yet received a baseline audiogram or have experienced a standard threshold shift.

**Employee Notification of the Results of the Noise Exposure Monitoring**

Employees must be notified of the results of the noise exposure monitoring. Whether written or verbal notification is used, documentation must be maintained. Records will be kept for two years.

**Engineering Controls to Reduce Noise**

Contact the equipment manufacturer for noise abatement suggestions.

Purchase quieter equipment and perform routine maintenance to reduce noise levels.

Reduction of noise levels at the source:

* Substitution of materials (i.e., plastic for metal).
* Dampening or reducing surface vibration.
* Increasing the distance between the employee and the noise source.
* Enclosures or sound insulation material.

**Administrative Controls to Reduce Noise**

When engineering measures alone cannot reduce the noise below 90 dBA, administrative controls may be used to minimize employee exposure such as worker rotation from high noise levels to quiet areas or limiting the length of time an employee can work when rotation is not possible.

**Hearing Conservation Training**

Hearing conservation training is required annually for all employees with noise exposures of 85 dBA TWA or greater. The goal of the training is to teach the employees the company hearing conservation program policies and the requirements of the standard.

The following topics will be included in the employee training of the hearing conservation program:

The effects of noise on hearing:

* It can take many years to occur and the employee may not realize the gradual hearing loss. The loss occurs without any pain and cannot be corrected by any known medical or surgical treatment. A good rule of thumb to remember is that if you have to raise your voice at a distance of 3 feet, you are in an area with a possible hazardous noise level. Repeated unprotected noise exposure will cause a permanent hearing loss. The hearing conservation program has been established to ensure that if you ever have a standard threshold shift, your noise exposure can be lessened by using engineering or administrative controls or more effective hearing protection. Thus the problem can be controlled.

The purpose of the annual hearing test and an explanation of the test procedures:

* The purpose of the annual hearing test is to monitor your hearing. Periodic audiometric testing provides an “early warning” of hearing disability. Factors such as noisy hobbies, ear infections, diseases of the ear, as well as general illness may also cause hearing loss. All employees’ hearing will be checked upon employment and once a year thereafter. You will be notified of any changes in your hearing. You cannot “fail” the test and you will not lose your job due to the results of the test.

The purpose of hearing protectors, instructions on selection, advantages, disadvantages, fitting use and care:

* The proper use of hearing protection will prevent many types of hearing loss. You must wear the required hearing protection properly and regularly to reap the benefits of the protection. You should have already been fitted by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ for your size and type of earplug. If you have any problems with the fit of your hearing protectors, contact \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Hearing Tests**

All employees who are exposed to a noise level of 85 dBA or above will be in the hearing conservation program and have their hearing checked annually. All hearing test results and other required documentation will be maintained in accordance with 29 CFR 1910.1020**—**Access to Employee Exposure and Medical Records.

Employees will be scheduled as follows: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Testing will begin in \_\_\_\_\_\_\_\_\_\_\_\_\_for all employees requiring the annual hearing test. Each employee’s supervisor or designee will notify that employee of the test.

It is the responsibility of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_to ensure that contractors providing hearing tests to employees meet OSHA requirements. It will be the responsibility of\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to obtain and file the following documentation annually from the contractor providing the hearing tests: current audiometer calibration check records, last audiometer check, both background noise level records and current audiometer technician certification. If a mobile van used for testing cannot provide these records, then another testing center will be used.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_will provide a file for the audiograms that is separate from other medical or personnel files. These files will be kept confidential.

**Hearing Protection**

Employees will be provided with the following hearing protectors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**How to Properly Wear Hearing Protectors**

It is an OSHA requirement that the company ensures the proper initial fitting and that the company provides training in the use and care of all hearing provided to employees.

Employee hearing protection training is required:

* Annually during hearing conservation training.
* Each time an employee shows a standard threshold shift change in hearing.

To prevent a hearing loss, hearing protectors must be worn correctly and taken care of. Keep your ear plugs clean by washing them in warm soapy water and make sure they are completely dry before inserting them in your ears. Inspect your hearing protection regularly. If they become damaged, hard or worn out, replace them with a new pair.

Proper use of hearing protection will prevent many types of hearing loss. The employee must wear the required hearing protection properly and regularly to reap the benefits of the protection

Due to the fact that everyone has different size ear canals, each person will be fitted by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to ensure they receive the right size. Each employee will be instructed on how to put their personal hearing protectors in and also be given the chance to practice in front of the hearing conservationist. Two different types of hearing protectors will be provided to employees. If there is a problem with the fit comfort of your hearing protectors, see\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and you will be given a different type of protection.

**Hearing Protection Life Span**

The life of the hearing protector is dependent upon the care it is given. A sponge type hearing protector is disposable, but as long as it is clean, it may be used until it no longer expands. How long the hearing protection lasts is unique to each employee depending on the chemical make-up of their body as follows:

* Sponge plugs—one or two days.
* Custom plugs—18-24 months.
* Insert plugs—four- six months.
* Muffs—replace when worn out.

**Hearing Testing**

The two types of hearing tests are annual hearing tests and baseline hearing tests. The annual hearing testing is required for employees with 85 dBA TWA or higher noise exposures. Testing can be done any time during the day. Baseline hearing testing is done when an employee is initially hired. The baseline is extremely important because it is the reference against which future audiograms are compared to determine the extent to which an employee’s hearing is deteriorating. The standard requires that a baseline must be done within six months of hire.

If a mobile van is used, the baseline is required within one year of an employee’s first exposure at or above the action level. However, the employee must wear protection for any period exceeding six months until the baseline is obtained. (North Carolina Workers’ Compensation Law has a 90 working day grace period. If a company gives the baseline before the grace period is up then the company may be liable only for subsequent hearing loss.) It is required that the baseline audiogram be preceded by at least 14 hours without exposure to workplace noise. Time that hearing protection is worn may be included as part of the 14 hours without exposure to noise.

*All employees will be notified that they need to avoid non-occupational noise exposure during the 14 hours prior the audiometric test.* If it is not possible to avoid high noise levels prior to testing, the employee should wear hearing protection prior to the test to minimize the possibility of a temporary threshold.

A retest audiogram can be conducted to verify or confirm a standard threshold result. Times when a retest may be needed:

* The company may obtain a retest within 30 days of the original test and use the results to determine whether a persistent threshold shift has occurred.
* The audiologist or physician requests a retest to confirm test results.
* The test administrator requests a new test due to errors in the original test.

**Audiometer**

 The company must verify that the following checks are made:

* The functional operation of the audiometer must be checked before each day’s use by a person with stable hearing thresholds.
* Acoustic calibration check annually per the requirements of Appendix E—Acoustic Calibration of Audiometers of the standard.
* Exhaustive calibration checks at least every two years per ANSI S3.6—2004 American National Standard Specification for Audiometers.

Pulsed-tone and self-recording audiometers must meet the requirements of Appendix C—Audiometric Measuring Instruments of the standard.

**Booth**

The following must be done:

* Noise levels inside the booth must be checked with the ventilation fan on and off each time the booth location or environment changes.
* With no change in the environment or location, it is recommended that the background noise levels be checked every three years.

**Standard Threshold Shift**

A standard threshold shift is a change in hearing threshold relative to the baseline audiogram of an average of 10 or more dBA at 2,000, 3,000 and 4,000 Hz. If a standard threshold shift has occurred, the employee must be informed in writing within 21 days of the determination. Employees must be trained in using hearing protectors and in care of the hearing protectors. If the employee is already using hearing protectors, they must be retrained and refitted. If necessary, hearing protectors can be changed to a different type.

***Note:*** *An example non-mandatory “Notification of “Quiet Period” Prior to Baseline Hearing Test” is located in Section 6—Forms*

**Recording Hearing Loss on the OSHA 300 Log**

Hearing loss meeting the criteria in 29 CFR 1904.10—Recording Criteria for Cases Involving Occupational Hearing Loss must be recorded on the “*Occupational Illness or Injury Form*” in the hearing loss column.

**Recordkeeping**

Records are an important part of any effective hearing conservation program. The information contained in these records reflects the quality and effectiveness of the company hearing conservation program.

A number of documents are required to be maintained under the OSHA hearing conservation standard once the action level has been initiated. Some of these records must be retained for specified periods as shown in the following records and documentation. It is also required that these records be provided, upon request, to employees, former employees, representatives designated by the individual employee, and the assistant secretary of labor.

The following records/documentation must be maintained:

* Noise exposure measurements (retain at least two years).
* Employee notification on the results of the sound survey.
* Posted OSHA hearing conservation standard.

Hearing testing (retain for at least the duration of employment)

* Annual
* Baseline

Audiogram Evaluation Requirements

* Standard threshold shift requirements
* Physician review

Audiometer

* Acoustic calibration check
* Exhaustive calibration check
* Biological calibration check
* Self-listening check

Booth (if testing is done on site)

* Background noise

**Free Outreach Resources:**

[*Safety and Health Programs and Plans*](https://www.labor.nc.gov/safety-and-health/publications/example-programs) *(i.e., Example Programs to be Made Site-Specific)*

[*A - Z Safety and Health Topics*](https://www.labor.nc.gov/safety-and-health/occupational-safety-and-health/occupational-safety-and-health-topic-pages) *(i.e., Learn More About Safety and Health Topics)*

[*Which Standards Apply?*](https://www.labor.nc.gov/which-osha-standards-apply) *(Identify the Standards Applicable to Your Worksite)*

[*Safety and Health Presentations*](https://www.labor.nc.gov/document-collection/osh-presentations) *(Downloadable Presentations to be Made Site-Specific)*

[*OSH Training Calendar*](https://www.labor.communications.its.state.nc.us/OSHPublic/ETTA/class_regist/calendar.cfm) *(i.e., Register for Webinars, In-Person Classroom Training, Virtual Events)*

[*Streaming Video Services*](https://www.labor.nc.gov/safety-and-health/library/how-borrow-dvds-and-videos#are-your-videos-online) *(On-Demand Training)*

[*Request Outreach Services*](https://www.labor.communications.its.state.nc.us/OSHPublic/ETTA/Outreach/Outreach_Request_Form.html) *(i.e., Request Training, Booths, Guest Speaker)*

[*AskOSH*](https://www.labor.nc.gov/safety-and-health/occupational-safety-and-health/ask-osh) *(Interpretations)*