

## Hearing Conservation

The purpose of the Florida State University Hearing Conservation Program is to minimize occupational hearing loss by providing hearing protection, training, and annual hearing tests to all persons working in areas or with equipment that have noise levels equal to or exceeding an eight-hour time-weighted average (TWA) sound limit of 85 dBA (decibels measured on the A scale of a sound level meter).

### Responsibilities

#### Environmental Health & Safety

- Review the Hearing Conservation Program on a regular basis to ensure its effectiveness.
- Conduct noise monitoring as processes or equipment are identified or upon request from a department that is concerned with loud noises.
- Conduct annual [training](#) for affected employees.
- Assist departments in choosing and fitting hearing protection devices.
- Maintain records of noise measurements and training.

#### Departments

- Identify potential areas of concern. EH&S will then monitor to determine which work areas or procedures require participation in the Hearing Conservation Program.
- Provide affected employees with baseline audiograms and annual audiogram follow-ups. The employee's Department is responsible for the cost of exams.
  - The FSU L.L. Schendel Speech and Hearing Clinic is used to provide audiogrametric evaluations and annual review audiograms.
    - Written reports are provided to the employee, the employee's department and EH&S.
    - The Clinic will make referrals for otological/audiological evaluation and treatment if needed.
    - The Clinic may also assist in providing educational programs regarding hearing conservation to employees and supervisors.
    - Contact Information for clinic: (850)644-2238 or website at <http://commdisorders.cci.fsu.edu/speech-hearing-clinic/clinic-services/>
- Provide a choice of at least two hearing protection devices (earplug or earmuff).
- Ensure hearing protection devices are being properly worn.
- Maintain records of audiograms and hearing protection devices issued to specific employees. The [Record of Hearing Protection form](#) can be used for this.
- Post signs and warnings in all high noise areas.

#### Employees

- Attend baseline and annual audiogram
- Use hearing protection in designated high noise areas and operations.

- Exercise proper care of issued hearing protection and request new hearing protection when needed.
- Attend training sessions.

### **Definitions**

**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.

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

**Sound level meter** - An instrument for the measurement of sound level.

**Time-weighted average sound level** - That sound level, which if constant over an 8-hour exposure, would result in the same noise dose as is measured.

The key elements to an effective Hearing Conservation Program are:

### **Noise Monitoring**

Monitoring for noise exposure levels will be conducted by EH&S. It is the responsibility of the individual departments to notify EH&S when there is a possible need for monitoring. Potentially harmful noise levels can be suspected when noise at the work site routinely interferes with verbal communication; when noise routinely startles, annoys, or disrupts an employee's concentration; or when noticeable hearing loss or pain is reported. Monitoring will be performed with the use of a calibrated sound level meter and/or personal noise dosimeter. Employees must receive notification of the results of exposure monitoring.

Monitoring will also be conducted whenever there is a change in equipment, process or controls that increase noise levels. This includes the addition or removal of machinery, alteration in building structure, or substitution of new equipment in place of that previously used. The responsible departmental supervisor must inform EH&S when these types of changes are instituted.

When information indicates that any employee's noise exposure may equal or exceed an 8 hour TWA of 85 dBA, monitoring will be conducted to document the exposure and to determine if the employee is to be included in the Hearing Conservation Program.

Monitoring will be repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that: Additional employees may be exposed at or above the action level, or the attenuation provided by hearing protectors being used by employees may be rendered inadequate.

### **Training**

Affected employees will be required to attend training in the proper use and wearing of hearing protection devices. The training will be conducted by EH&S, or a designated representative annually.

Training shall consist of the following components:

- How noise affects hearing and hearing loss.
- Review of the [OSHA hearing protection standard](#).
- Explanation of audiometric testing.

- Areas and/or operations where hearing protection is required.
- Use and care of hearing protection devices.

### **Hearing Protection**

All employees shall properly wear the prescribed hearing protection while working or traveling through any area that is designated as a high noise area or a high noise operation.

Hearing protection will be provided to employees who perform tasks designated as having a high noise exposure. Hearing protection devices shall be replaced as necessary. It is the supervisor's responsibility to require employees to wear hearing protection when noise levels reach or exceed an 8 hour TWA of 85 dBA. Those employees will have the opportunity to choose from at least two different types of hearing protection.

Personal stereo earphones or ear-buds are not approved for hearing protection and are not acceptable hearing protection devices.

Signage is required in areas that necessitate hearing protection. It is the responsibility of the department to provide signage to the appropriate areas.

Preformed earplugs and earmuffs should be washed periodically and stored in a clean area. Hands should be washed before handling preformed earplugs and foam inserts to prevent contaminants from being deposited in the ear.

The responsible supervisor in each department will keep a log of the areas or job tasks designated as requiring hearing protection, as well as the personnel affected by this Hearing Conservation Program and the type of hearing protection devices issued. The [Record of Hearing Protection form](#) can be used for this.

Hearing protection devices shall be chosen that provide attenuation of noise to less than 85 dBA when fitted and worn properly.

Each responsible department supervisor shall ensure proper initial fitting, correct use and ensure that hearing protection is always used when needed.

### **Audiograms (Hearing Tests)**

Employees subject to the Hearing Conservation Program who have time-weighted average (TWA) noise exposures of 85 dBA or greater for an eight (8) hour work shift will be required to have both a baseline and annual audiogram. Audiometric testing monitors an employee's hearing over time. The audiograms will be provided (at no cost to the employee) by the L.L. Schendel Speech and Hearing Clinic located at 201 W. Bloxham, Warren Building Tallahassee, FL 32306-1200. The phone number is (850)644-2238. More information on the clinic can be found at their website: <http://commdisorders.cci.fsu.edu/speech-hearing-clinic/>

The baseline audiogram will be given to an employee within one month of employment with Florida State University and before any exposure to high noise levels. It is the responsibility of the department to schedule the baseline and annual audiogram.

If an annual audiogram shows that an employee has suffered a standard threshold shift, the employee will be retested within thirty days of the annual audiogram. If the retest confirms the occurrence of a standard threshold shift, the employee will be notified of the confirmation. Employees who do experience a standard threshold shift will be refitted with hearing protection and provided more training on the effects of noise.

## **Governing Regulations**

[Occupational Safety and Health Administration \(OSHA\) 29 CFR 1910.95, Occupational Noise Exposure](#)

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### Additional Information and Resources:

- OSHA-[Occupational Noise Exposure](#)
- CDC-[Noise and Hearing Loss Prevention](#)
- National Institute on Deafness and Other Communication Disorders: [Noise-Induced Hearing Loss](#)