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**SAF-366, HEARING CONSERVATION PROGRAM**

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## TITLE:

**SAF-366, HEARING CONSERVATION PROGRAM**

## 1.0 Introduction

### 1.1 Purpose

The purpose of this program is to serve as a guide in the protection of all employees from elevated exposure to noise as prescribed in the Occupational Safety and Health Administration's (OSHA's) Noise Standard - 29 CFR 1910.95.

### 1.2 Scope

The Hearing Conservation Program applies to all Emory University students and employees - including faculty.

### 1.3 Definitions

**Decibel (dBA).** Decibels on an A-weighted scale; unit of measurement of sound level

**Standard Threshold Shift.** 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

**HPD.** Hearing Protection Devices (i.e. ear plugs, ear muffs)

**TWA.** Time-Weighted Average; average exposure over a specified period of time

### 1.4 Responsibilities

#### ***Environmental Health and Safety Office (EHSO)***

As the administrative department for the Hazard Communication Program, the Environmental Health and Safety Office (EHSO) is responsible for:

- Development, implementation, and administration of the Hearing Conservation Program;
- Conducting workplace noise monitoring to determine the need for hearing protectors;
- Providing guidance for the selection and attenuation of appropriate hearing protectors;
- Assisting in the scheduling of annual audiometric testing;
- Development and implementation of the Noise Training Program; and
- Reviewing, updating, and evaluating the overall effectiveness of the Hearing Conservation Program.

#### ***Directors, Supervisors, and Managers/Principle Investigators (PIs)***

The principal investigators, directors, supervisors, and managers have primary responsibility for the management and enforcement of the Hearing Conservation Program in their areas. They must ensure that:

- Compliance with the Hearing Conservation Program is enforced;
- Adequate and appropriate hearing protection devices are provided for any employee included in the Program;
- Affected employees are trained;
- All outside contractors entering spaces identified as high noise areas are informed of the requirements of Emory's Hearing Conservation Program;
- All outside contractors are informed of the location and hazards associated with

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all known high noise areas that the contractor may enter;

- EHSO is informed whenever a new potential high noise area is discovered or equipment producing high noise is introduced into the work area; and
- All required records are retained.

***Employees***

Employees are responsible for complying with the rules set forth by this Program.

***Employee Health Services***

Employee Health Services (EHS) is responsible for the following:

- Reviewing results of the audiometric testing for employees included in this Program;
- Determination of Standard Threshold Shifts (STS);
- If there is an STS, informing employees of the results of the audiometric testing within 21 days of the determination.

**1.5 Training Requirements**

Hearing Conservation training is conducted whenever an employee is exposed to noise at or above 85 dBA and annually thereafter. Hearing Conservation training includes the following:

- The effects of noise on hearing;
- The purpose of hearing protectors;
- The advantages, disadvantages, and attenuation of the various types of hearing protectors provided;
- Instructions on the selection, fitting, use and care of hearing protectors;
- The purpose of audiometric testing; and
- The general requirements of [29 CFR 1910.95](#).

**1.6 Recordkeeping Requirements**

- Employee noise exposure records are retained by EHSO for the length of the employee's employment with Emory plus 30 years.
- Audiometric testing records are retained by Employee Health Services for the length of the employee's employment plus thirty years.
- Training records are retained by EHSO until retraining is conducted.

**1.7 Program Evaluation**

The Hearing Conservation Program will be evaluated annually and revised as necessary.

**2.0 Procedure****2.1 Monitoring**

- Annual evaluations of workplace sound pressure levels and personal noise exposures are made to ensure that all areas in which hearing protection is required are identified and to provide data for control studies and implementation.
- All employees working in areas where sound pressure levels are 85 decibels on an A-Weighted Scale (dBA) or greater are provided with hearing protection

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devices (HPDs).

- Monitoring results are used to determine the amount of attenuation that is needed in HPDs.
- Whenever technical and economical feasibility permits, engineering and administrative noise control measures are implemented.
- All employees who are personally monitored are notified in writing within fifteen (15) days of the monitoring results.
- The area supervisor is responsible for informing all employees whose jobs were evaluated for noise exposure of the exposure levels of their jobs.

## 2.2 Audiometric Testing

- Audiometric testing is managed by EHSO and EHS in accordance with the following guidelines:
- A baseline audiogram is conducted within six months of first exposure for all new hires at Emory University;
- Audiometric testing is performed annually for each employee at Emory University who has a sound pressure level of 85 dBA or greater;
- Each ear is otoscoped prior to conducting the audiometric test. If an accumulation of earwax is noted, no test will be performed. Instead the employee is directed to see his/her physician and the testing is rescheduled;
- If a hearing problem is noted during the testing, the individual is “reflagged” for retesting in thirty days, and the employee is referred to Emory’s Physician; and
- The Industrial Hygienist is informed of all temporary and permanent threshold shifts.

## 2.3 Hearing Protectors

- All employees, students, contractors, and visitors are required to wear hearing protection upon entrance into a posted “Hearing Protection Required” area.
- The Industrial Hygienist approves all hearing protectors worn at Emory University. **NOTE: ONLY APPROVED HEARING PROTECTORS ARE TO BE WORN AT EMORY UNIVERSITY.**
- The Industrial Hygienist evaluates the adequacy of hearing protection attenuation whenever employee noise exposure increases to the extent the protector provided might not be adequate .

## 2.4 Access to Records

- A copy of the OSHA Occupational Noise Exposure Standard ([29 CFR 1910.95](#)) is posted in every work area having noise levels at or in excess of 85 dBA.
- The Industrial Hygienist provides access to employee noise exposure records to the employee or the employee representative.

## 3.0 Calculations

The Industrial Hygienist ensures that hearing protectors attenuate employee noise exposure to at least an 8-hour time-weighted average of 85 dBA or below using the following calculation:

- Subtract 7dB from the Noise Reduction Rating (NRR) assigned to the hearing protectors.



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- Subtract the remaining number from the employee's noise level to obtain the estimated A-weighted time-weighted average (TWA) under the hearing protector.

#### **4.0 References**

- Occupational Noise Exposure - 1910.95
- Noise Training for Emory University Employees