
 <b>WAKE FOREST UNIVERSITY</b>	<b>Document #:</b> SAFETY_008	<b>Revision Date:</b> September 2009
	<b>HEARING CONSERVATION</b>	<b>Developed by:</b> Environmental Health & Safety  <b>Approved by:</b> Associate VP of Facilities & Campus Services   1 Sep 09
<b>Effective Date:</b> November 1, 2001		

**1. PURPOSE**

The Hearing Conservation program is in place to prevent noise-induced hearing loss due to high decibel operations on campus. Wake Forest University will, when possible, prevent noise-induced hearing loss by providing proper engineering controls. When engineering controls are not feasible, appropriate hearing protection will be provided to employees. Adequate training and annual audiograms will be provided to affected employees. Protection against the effects of noise exposure shall be provided when the sound levels exceed those referenced in 29 CFR 1910.95.

**2. REFERENCE**

29 CFR 1910.95

**3. DEFINITIONS**

*Audiogram* -the method of determining a person’s threshold of hearing. The amount of hearing loss can be determined from an audiogram. The audiogram is typically the detection of a tone at its lowest perceivable level. The tones are at industry designated frequencies.

*Audio Dosimeter* – a device used to measure decibel levels instantaneously or over a set period of time.

*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.

**4. RESPONSIBILITIES**

**Environmental, Health and Safety (EHS)**

The EHS Office is responsible for maintaining the hearing conservation program. The program will be reviewed on an annual basis.

Audio testing to check decibel levels at areas of concern on campus.

The EHS Office will schedule annual audiograms for employees and annual audio dosimeter testing for affected employees as determined by Space Hazard Assessments and job specific tasks.

Maintain records of audiogram and audio dosimeter surveillance testing.

### **Supervisor / Department**

In areas with high or constant noise risk, supervisors are responsible to maintain appropriate caution signs.

Supervisors will ensure that affected employees have been trained on occupational noise exposure and participate in annual audio dosimeter surveillance.

Provide training in the use and care of all hearing protectors provided to employees.

Ensure proper initial fitting and supervise the correct use of all hearing protectors.

Supervisors are responsible for ensuring employees are using appropriate hearing protection when required.

### **Employee**

Responsible for wearing assigned hearing protection. The type of hearing protection required is based on the level of noise exposure.

Participate in annual dosimeter testing as scheduled by the EHS Office.

## **5. PROCEDURE**

WFU shall administer a continuing, effective hearing conservation program whenever employee noise exposures equal or exceed an 8-hour time-weighted average (TWA) sound level of 85 decibels.

### **5a. Audiogram and Dosimeter Testing**

Employees who are assigned to a work area where there is a constant or high risk of noise exposure are required to take an initial audiogram (hearing test), which will be the baseline starting point. This includes, but may not be limited to employees in the following divisions:

- Landscaping
- Carpentry Shop
- Construction
- Special Coatings
- Power Plant

- President's House Landscaping Staff
- Reynolda Gardens
- Athletic Maintenance
- Graylyn

All employees who work within these areas are required to take an annual audiogram as scheduled by the EHS Office. In the event there is either significant hearing loss detected when a new employee is tested, or if an annual audiogram reveals significant hearing loss since the last test, employees may be referred to an audiologist, otolaryngologist, or physician.

Employees will also participate in annual audio dosimeter testing conducted through the EHS Office. Employees will wear the audio dosimeter during a normal work shift to determine typical noise exposure levels.

**5b. Hearing Protectors**

Wake Forest University shall make hearing protectors available to all employees exposed to an 8-hour time-weighted average of 85 decibels or greater. Hearing protectors shall be replaced as necessary.

**5b.1.** Supervisors shall ensure that hearing protectors are worn:

*When employees are subjected to sound exceeding those listed in the table below.*

<b>Duration per day, hours</b>	<b>Sound level dBA slow response</b>
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

*By any employee who is exposed to an 8-hour time-weighted average of 85 decibels or greater, and who:*

- 1) Has not yet had a baseline audiogram established, or

2) Has experienced a standard threshold shift.

At no time should an employee be exposed to impulsive or impact noise exceeding 140 dB peak sound pressure level.

**6. TRAINING**

Initial training shall ensure that each employee is informed of the following:

The effects of noise on hearing

The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care

The purpose of audiometric testing, and an explanation of the test procedures

The training program shall be repeated annually for each employee included in the hearing conservation program. Information provided in the training program shall be updated to be consistent with changes in protective equipment and work processes

**7. REVISIONS**

REVISION	REVISION DATE