The University of Texas at El Paso

Hearing Conservation Program

PURPOSE

The purpose of the Hearing Conservation Program is to provide information for the protection of UTEP employees from long term hearing loss associated with noise levels in the workplace in compliance with OSHA 29 CFR Part 1910.95 Occupational Noise Exposure.

HEARING CONSERVATION PROGRAM

All university employees whose noise exposure equals or exceeds an 8-hour time weighted average of 85 decibels will be enrolled in a hearing conservation program. The program includes:

- Work place evaluations
- Exposure assessment
- Audiometric testing as necessary
- Engineering controls
- Annual training on noise exposure

Employees participating in the Hearing Conservation Program will be required to wear hearing protection devices, as needed, to decrease noise exposure levels.
1. Introduction
   1.1. The aim of the program is to ensure that UTEP personnel who are exposed to high noise levels get the appropriate protection and training. Exposure to excessive noise in the work place may cause permanent hearing loss. The Hearing Conservation Program has been established to help ensure that UTEP personnel do not suffer health effects from exposure to excessive noise at work.
   1.2. This program applies to all UTEP employees who are required to wear hearing protection due to the nature of their work at the University.

2. Objectives
   2.1. To identify work areas or job tasks that generate high noise levels.
   2.2. To identify employees that have the potential to be exposed to high noise levels.
   2.3. To reduce worker exposure to noise by implementing engineering or administrative controls.
   2.4. To provide supervisors and employees with recommendations for personal protective equipment that will decrease noise, below the action level, when engineering or administrative control are infeasible.
   2.5. To train employees working in high noise areas on the effects of high noise exposure on hearing and on the proper use of hearing protection devices.
   2.6. Enter employees in medical surveillance as needed to ensure that hearing protection is adequate.

3. EXPOSURE LIMITS
   The university exposure limit for noise is 85 dBA for an eight-hour period. This exposure limit is in accordance with recommendations from OSHA, AIHA, and NIOSH. Table 1 details the University’s action levels (ALs) for noise according to duration of exposure. Noise levels below 85 dBA do not require hearing protection and inclusion in the Hearing Conservation Program. Exposure to impact and impulsive noise should be restricted.
Table 1. The University of Texas at El Paso Action Levels for Noise

<table>
<thead>
<tr>
<th>Level (dBA)</th>
<th>Duration</th>
<th>Dose %</th>
</tr>
</thead>
<tbody>
<tr>
<td>85</td>
<td>8 hours</td>
<td>100</td>
</tr>
<tr>
<td>88</td>
<td>4 hours</td>
<td>100</td>
</tr>
<tr>
<td>91</td>
<td>2 hours</td>
<td>100</td>
</tr>
<tr>
<td>94</td>
<td>1 hour</td>
<td>100</td>
</tr>
<tr>
<td>97</td>
<td>30 minutes</td>
<td>100</td>
</tr>
<tr>
<td>100</td>
<td>15 minutes</td>
<td>100</td>
</tr>
</tbody>
</table>

4. ROLES AND RESPONSIBILITIES

4.1. University Environmental Health and Safety (EH&S)

UTEP EH&S has the responsibility of recommending the type of hearing protection required to decrease the noise level below 85dBA and provide periodic training. EH&S will also provide employee training, periodic review of program and program elements, and noise assessments.

EH&S is also responsible for providing medical evaluations as necessary, including audiometric testing necessary to protect the hearing of employees.

4.2. Individual departments

Each department is responsible for purchasing and maintaining their own hearing protection equipment, as recommended by EH&S. Departments are also responsible for notifying EH&S of employees that need to be considered to be in the hearing conservation program.

4.3. Supervisors

Supervisors are responsible for ensuring that their employees have the time to complete all required training and medical evaluations during work hours.

4.4. Employees

Employees in the program are responsible for complying with all appropriate guidance as to when to wear hearing protection.

5. HEARING PROTECTION PLAN ELEMENTS

5.1. EXPOSURE ASSESSMENT

EH&S will determine the need for hearing protection. This will be accomplished by review of job descriptions, task analyses, audiograms, and noise monitoring of equipment and work area. The University of Texas at El Paso exposure limit for noise is 85 dBA for an eight-hour period.
a. Initial monitoring
   - When initial monitoring indicates that an employee’s exposure is equal to or exceed
     an 8-hour time weighted average of 85 decibels, EH&S will implement a monitoring
     program.
   - For personal monitoring, it is best if the dosimeter is placed on the employee’s
     shoulder or lapel near the ear. For area monitoring take several readings at
     approximate ear height where employees may stand, sit, or work.
   - Affected employees will be notified of the results of the monitoring where levels at
     or above the action level are identified.

b. Area monitoring
   - Several readings will be taken at approximate ear level where employees may stand,
     sit, or work. Employees will have the opportunity to observe exposure monitoring
     and will be notified of the results.

c. Periodic monitoring
   - Monitoring should be repeated whenever changes in production, process, or
     controls increase noise exposure.

5.2. AUDIOMETRIC TESTING

All employees exposed to noise at or above the action level (85dBA) are required to
participate in the program. This program consists of:

a. Baseline audiogram- establishes a reference point for future audiograms. Employees
   who are exposed to noise above 85dBA averaged over an eight-hour day must have
   baseline audiograms within six months of their first exposure.

b. Employees must be retested at least annually if they are exposed above the 85-dBA
   limit. The results of each employee’s annual audiogram must be compared with the
   baseline audiogram to determine if the employee’s hearing has changed. The employee
   will be notified of the finding.

c. Audiometric testing will be review by a health care professional. The health care
   professional will determine if further evaluation or retraining is needed.

5.3. CONTROL MEASURES

5.3.1 Engineering controls
Engineering controls are defined as any modification or replacement of equipment, or
related physical change at the noise source or along the transmission path that reduces
the noise level at the employee’s ear. If an assessment indicates that employees are
being exposed to noise levels greater than or equal to the action level, engineering
controls should be considered first to reduce noise exposure. Engineering controls include, but not limited to relocation of noisy equipment, sound barriers and substitution of equipment, materials.

5.3.2. Administrative controls
Administrative controls are changes in the workplace that decrease or eliminate the exposure to noise. Examples include:

- Limiting the amount of time an employee spends at a noise source.
- Restricting worker presence to a suitable distance away from noisy equipment.

5.3.3. Personal Protective Equipment (PPE)
If engineering and administrative controls are determined as infeasible, employees will be required to use hearing protection as part of the mandatory personal protective equipment. Employees that are required to wear hearing protection are required to receive training on why and when hearing protection is necessary, how to select the proper device; how to wear them correctly, and how to maintain them. Employees who chose to wear hearing protection in areas that are below 85dBA are considered voluntary and are not subject to training or medical surveillance.

6. EMPLOYEE TRAINING

6.1. Employees who are exposed to noise greater than 85 dB must have annual training that teaches them why sustained 85-decibel noise can damage their hearing, the purpose of the audiometric testing, why they should use hearing protectors, and how to use them properly.

6.2. Training
The University Environmental Health and Safety Office will provide training to UTEP personnel in the use, maintenance, and limitations of hearing protection to all UTEP personnel.

- The effects of noise on hearing

Hearing can be damaged by loud noise. The noise does not have to be a constant sound to damage hearing. Short loud bursts can also affect hearing.

- The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use and care.
Hearing Protectors have the ability to reduce noise from entering the ear. It is defined as a noise reduction rating (NRR). The higher the NRR, the better the hearing protection. Check with your supervisor or EH&S if you have questions regarding the appropriate hearing protection you need to wear in your work space.

**Ear muffs** are easier to wear, clean, and are comfortable. However, eyeglass bars, hair and other obstructions may decrease protection provided by breaking the seal between head and muff.

**Ear plugs** also provide good protection. However, they must be inserted correctly. For some individuals, slight wearing discomfort may be expected until they become use to the fit.

Clean your hands prior to inserting plugs into the ear canal. Reusable plugs should be washed after each use. Disposable plugs must be discarded if they become dirty.

- The purpose of audiometric testing and explanation of the test procedures.

It is conducted to ensure that adequate steps are being taken to protect your hearing. Report any hearing related problems to EH&S.

7. **RECORDKEEPING**
   7.1. Noise exposure measurement records will be maintained according to the University’s Record Retention Policy.

8. **ACCESS TO INFORMATION**
   8.1. Employees in the Hearing Protection Program will have access to their exposure monitoring records and audiometric test records.

**References**

The University of Texas at El Paso
Hearing Conservation Program/Field Sampling Collection Forms

<table>
<thead>
<tr>
<th>Date</th>
<th>Location (Bldg. and room)</th>
<th>Collected by</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Employee/Area monitored

<table>
<thead>
<tr>
<th>Time on</th>
<th>Time off</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>