

## DHHS POLICIES AND PROCEDURES

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<b>Section V:</b>	<b>Human Resources</b>
<b>Title:</b>	<b>Safety and Benefits</b>
<b>Chapter:</b>	<b>Hearing Conservation Plan</b>
<b>Current Effective Date:</b>	<b>3/1/16</b>
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### Purpose

The purpose of this policy is to establish procedures to preserve personnel hearing through identification and control of high noise levels and mandatory use of hearing protection. This policy applies to all DHHS staff working in high noise areas.

### Policy

It is the policy of DHHS to protect employees, patients, clients, residents, and any other individuals from hazards associated with elevated noise levels. Many facility operations could potentially expose staff to noise levels at or above 85 dBA (decibels, A scale) for an eight hour time-weighted-average (TWA). Any identified increases in noise exposures above this level will require modification of this plan and enrollment of affected staff in a Hearing Conservation Program.

### Definitions

**Audiometric Testing** – A test used to determine a subject's hearing levels with the help of an audiometer, but may also measure ability to discriminate between different sound intensities, recognize pitch, or distinguish speech from background noise. Acoustic reflex and otoacoustic emissions may also be measured.

**dBA**- An expression of the relative loudness of sounds in air as perceived by the human ear. In the A-weighted system, the decibel values of sounds at low frequencies are reduced as a correction to approximate human hearing.

**Decibels**- A logarithmic unit used to express the ratio of two values of a physical quantity, often power or intensity.

**Noise Level** – The background sound pressure level at a given location, normally specified as a reference level to study a new intrusive sound source.

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**Permanent Threshold Shift** – A permanent threshold shift is a permanent shift in the auditory threshold. It may occur suddenly or develop gradually over time. A permanent threshold shift results in permanent hearing loss.

**Temporary Threshold Shift** - A temporary shift in the auditory threshold. It may occur suddenly after exposure to a high level of noise, a situation in which most people experience reduced hearing. A temporary threshold shift results in temporary hearing loss.

**Time Weighted Average** - A time-weighted average (TWA) is used to calculate a workers daily exposure to a hazardous substance (such as chemicals, dusts, or vapors) or agent (such as occupational noise), averaged to an 8-hour workday, taking into account the average levels of the substance or agent and the time spent in the area.

## **Roles and Responsibilities**

### **Safety Programs Manager**

The Safety Programs Manager (SPM) ensures that a written plan is in place to establish a policy for hearing conservation. The SPM reviews the policy periodically.

### **Safety Officer**

The Safety Officer is responsible for identifying high noise level areas, providing training, developing a policy specific to the facility/division/office, and monitoring compliance during routine inspections.

### **Manager/Supervisor**

The manager/supervisor ensures that applicable staff are enrolled in the hearing conservation program and that staff are compliant with this policy.

### **DHHS Staff**

Staff are responsible for complying with this policy. Affected staff complete training and testing as required.

## **Implementation**

### **Program Scope**

- Personnel exposed to 90 dBA or more, regardless of duration, will wear hearing protection.
- Hearing Conservation Program requirements will become effective at or above the 85 dBA eight hour TWA level.

### **Audiometric Testing**

- When an increase in noise exposure above 85 dBA, eight (8) hour TWA is identified, a baseline audiometric test will be performed on personnel assigned to the high noise level area.

- Initial baseline testing shall be conducted to establish each individual's level of hearing prior to their exposure to high noise levels, or within 30 days of the initial exposure. The employee will be tested annually thereafter as long as the employee is assigned to work in a high noise level area.
- Audiometric test results will become a permanent part of individual medical records. Audio grams will be documented.
- An Audiologist will review test results to determine if appreciable hearing loss has been sustained. Persons who suffer a standard threshold shift from their baseline of ten (10) dBA or more at 2,000, 3,000, 4,000, will be notified in writing within 21 days and counseled. Consultations will be documented.
- Individuals who have suffered an appreciable hearing loss will be removed from the high noise area and retested within 30 days. If a permanent hearing loss is identified after the second test, a healthcare professional will recommend a plan of action to prevent further deterioration of the individual's hearing. The employee will be referred to the Workers' Compensation Program for coverage of treatment.
- An alternative to internal audiometric testing can be accomplished by a contract mobile test van.

### **Noise Level Survey**

- The Safety Officer will identify high noise level areas of the facility/division/office by conducting an initial noise level survey.
- Monitoring shall 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 protection being used by employees may be rendered inadequate.
- Safety Officer will maintain documented noise level survey results and notify persons exposed to high noise levels as defined by 29 CFR 1910.95 subpart G.
- Affected employees shall be provided the opportunity to observe any noise measurements conducted pursuant to this plan and 29 CFR 1910.95 subpart G.

### **High Noise Level Areas/Operations**

Each facility/division/office should develop a list of high noise level operations and include that information in this section.

### **Procedures**

- Stationary high noise level areas will be identified by signs to alert staff.
- Staff exposed to high noise levels are required to use approved hearing protection.
- Supervisors are responsible for purchasing a supply of hearing protection to meet the needs of their employees.
- Supervisors ensure employees are informed of hearing protection requirements and enforce this policy.

- Supervisors with high noise level operations maintain a list of persons affected by this policy and provide time for annual audiometric testing.
- Visitors entering areas where noise levels exceed 90dBA will wear hearing protection. Hearing protection is provided by the department.

### **Personal Protective Equipment**

- Hearing protection shall conform to ANSI standard S3.19-1974 and must attenuate employee exposure to an 8 hour time weighted average of 90 dBA.
- A selection of hearing protection will be available for employees or visitors working or touring through high noise level areas.
- Each department responsible for high noise areas must purchase and stock an appropriate inventory of hearing protection that will meet their needs.
- Hearing protection is cleaned, maintained, and stored appropriately to encourage use and prolong protective value.

### **Training**

Notification and training is provided when there is a change to noise output, engineering controls or protective equipment. The supervisor will be responsible for coordinating mandatory training for new employees. Personnel enrolled in the Hearing Conservation Program will receive training that includes the following:

- The effect 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.

### **Recordkeeping**

The employee audiometric test records are maintained within the employees' medical file. Individual audiometric test results will be retained for the duration of employment. The Safety Office will retain noise survey results for a period of two (2) years. The records will include:

- Name and job title of the employee.
- Date of audiometric testing.
- The examiner's name.
- Date of the last acoustic or exhaustive calibration of the audiometer.
- The employee's most recent noise exposure assessment.

### **Access to Information, Training Materials, and Records**

- This Plan will be available in the Safety Office and on the shared drive.
- The Safety Officer will make available additional copies of this policy, training materials, lesson plans, noise survey results and noise monitoring instruments upon request.
- Individuals may review their personal audiometric test results upon request.

### **Policy Update and Program Changes**

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- This program will be reviewed annually and updated whenever significant changes occur in the workplace, which adversely affect noise exposures.
- The procedures contained in this policy and the identified noise level areas will be reviewed and updated as necessary.
- The plan is effective upon issuance.

## References

- American National Standards Institute (ANSI) S3,19, 1974
- OSHA Occupational Noise Exposure, 29CFR 1910.95,  
[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9735](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9735)

*For questions or clarification on any of the information contained in this policy, please contact [Human Resources](#). For general questions about department-wide policies and procedures, contact the [DHHS Policy Coordinator](#).*

## **EFFECTS OF EXPOSURE TO HIGH NOISE LEVELS**

Exposure to high noise levels can result in permanent hearing loss. The amount of loss depends on the volume and duration of exposure. Exposure to dangerous noise can occur on the job or during leisure time activities such as loud music or television volume.

The Occupational Safety and Health Administration has established an exposure to sound levels of 85 decibels over an 8 hour time weighted average to be excessive. We have implemented a hearing conservation program to protect and monitor individual's hearing exposed to noise above that level.

- \_\_\_\_\_ Your work assignment places you at risk for occupational hearing loss.
- \_\_\_\_\_ Your work assignment could expose you to high noise. Training is being provided and your hearing will be monitored to prevent a hearing loss.

### **TYPE OF HEARING PROTECTION:**

There are two primary styles of hearing protection used at this facility; the foam plug and hearing muff. Hearing protectors are rated for the amount of noise they reduce. Hearing protection must also conform to American National Standards Institute S3.19-1974.

Hearing protection should comfortably fit the head and ears. A tight seal must be maintained for the protector to adequately reduce incoming noise. Hearing protection should be cleaned regularly and protected from damage that may reduce its effectiveness.

### **HEARING CONSERVATION PROGRAM:**

This institution has a written hearing conservation program. Persons enrolled in the program will be tested for hearing loss every year. Audio grams will be conducted with calibrated equipment and interpreted by a qualified physician or audiologist. Test results will be reviewed to determine if an appreciable loss in hearing has occurred. A plan will be developed to conserve your hearing if a loss occurs.

**HEARING CONSERVATION PROGRAM**

I, \_\_\_\_\_, have received training on Occupational Noise Exposure (CFR 1910.95 subpart G), I have also received an audiometric test and the results have been clearly explained. I have been made aware of the dangers of exposure to occupational noise over 85 decibels, over an 8-hour work day. I have also received training on the following topics:

**Hearing Conservation**

- I.** Effects of Noise Exposure
- II.** Audiometric Testing
  - a. Baseline Testing
  - b. Annual Testing
- III.** Personal Protective Equipment
  - a. Types of Hearing Protection
  - b. Procedures for using PPE
  - c. Maintenance of PPE
- IV.** Accessibility to Records

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Signature

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Date

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Job Title

**HEARING CONSERVATION PROGRAM****El Programa de Conservación de Auditivo**

Yo, \_\_\_\_\_, declaro que he recibido entrenamiento en Exposición de Ruido Ocupacional (CFR 1910.95). También he tomado una prueba audiométrica y el resultado ha sido claramente explicado. Entiendo los peligros sobre las exposiciones a los ruidos ocupacionales sobre 85 decibeles, sobre un periodo equivalente ha 8 horas de exposición ha 85 decibeles.

**Hearing Conservation**

- I.** Efectos de Ruido
- II.** Prueba Audiométrica
  - a. Prueba Básica
  - b. Examen Anual
- III.** Equipo de Protección Personal
  - a. Clases de Protección
  - b. Procedimiento para uso del Equipo de Protección Personal
  - c. Mantenimiento del Equipo de Protección Personal
- IV.** Accesibilidad de Archivos

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Firma de Recluso

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Fecha

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Título de Trabajo

**HEARING CONSERVATION PROGRAM  
CONSULTATION SHEET**

Employee Name: \_\_\_\_\_  
LAST
FIRST
MIDDLE

Date of Consultation: \_\_\_\_\_  
Month/Day/Year

Purpose of Consultation: Circle Below

- a. Failure to wear PPE
- b. Significant Threshold Shift at any frequency
- c. Standard Threshold Shift
- d. Medical: \_\_\_\_\_
- e. Other: \_\_\_\_\_

Type and size of PPE worn: \_\_\_\_\_

Date of Initial Fitting/Issue: \_\_\_\_\_  
Month/Day/Year

Off-the-Job Noise Exposure: Circle Below

- |                        |                |               |
|------------------------|----------------|---------------|
| a. Music/Entertainment | c. Hunting     | e. Firearms   |
| b. Auto Racing         | d. Power Tools | f. Second Job |

Change in PPE: Yes/NO  
 New PPE

Date of Refitting/Issue: \_\_\_\_\_  
Month/Day Year

Medical Referral

To: \_\_\_\_\_

Purpose of Referral:

- a. Evaluation for obstructed ear canal
- b. Evaluation for sensory neural damage

Other: \_\_\_\_\_

Employee Signature: \_\_\_\_\_

Supervisor Signature: \_\_\_\_\_

**AUDIOMETRIC EXAMINATION**

Location of audio grams: \_\_\_\_\_ Audiometer make: \_\_\_\_\_ Model: \_\_\_\_\_

Date of last calibration: \_\_\_\_/\_\_\_\_/\_\_\_\_ Functional / Exhaustive

Last	First	Middle

Department: \_\_\_\_\_ Position Title: \_\_\_\_\_

Audio grams Test Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
Month Day Year

Personal Protective Equipment (PPE): \_\_\_\_\_

NRR: \_\_\_\_ Exposure dBA:

Age: \_\_\_\_\_ PPE: \_\_\_\_\_ Exposure TWA:

Left Ear		Right Ear	
500		500	
1K		1K	
2K		2k	
3K		3K	
4K		4K	
6K		6K	

Hearing History

1. Known hearing loss
2. Head Injury
3. Family member w/hearing loss
4. Flu Measles, Mumps, Diabetes, Scarlet Fever, Viral Pneumonia, Otosclerosis  
Meniere's Ear Infection
5. Hearing Aid
6. Employee Estimate of hearing: Good Fair Poor
7. Medications: Streptomycin Neomycin Excess Aspirin Kanamycin
8. Noise exposure history: Military Service Pre. Occ Noise Exposure
9. Otosopic Exam (If conducted) Ear Canal Clear? Ear Drum visible? Inflammation? Scarring  
of eardrum? Drainage from ear?

**HEARING CONSERVATION PROGRAM  
CONSULTATION SHEET**

10. Ear Complications: Pain in ears Active Drainage Tinnitus Sudden hearing loss Perforated ear drum Vertigo Fullness in ears Excess wax Previous ear surgery Foreign objects in ear canal allergies.

Technician Signature: \_\_\_\_\_