

UNIVERSITY OF TOLEDO

SUBJECT: HEARING CONSERVATION PROGRAM

Procedure No: S-08-029

PROCEDURE STATEMENT

Employees who are exposed to noise at or above the 8-hour time weighted average shall participate in the University of Toledo's Hearing Conservation Program, which provides participation in the Audiometric Testing Program (Section II), makes available hearing protective devices (Section III), and provides training (Section IV).

PURPOSE OF PROCEDURE

The Occupational Safety and Health Administration has mandated in its Occupational Noise Exposure Standard, 29 CFR 1910.95, that a Hearing Conservation Plan shall be implemented if employees are exposed to noise levels equal to a 50% allowable dosage (i.e. 85dBA average for 8 hours) measured on the A-scale (slow response).

PROCEDURE

I. Monitoring

Monitoring shall be conducted by the Environmental Health and Radiation Safety Department upon request or when evidence suggests that any employee's exposure may equal or exceed an 50% allowable dosage.

- A. This survey will allow for the determination of individuals who will be included in the Hearing Conservation Program as well as for selection of control technologies and of proper hearing protection devices.
- B. Monitoring shall be repeated whenever changes in production, process, equipment, or controls cause an increase in noise exposures, such that:
 1. new employees that are exposed at or above the 50% dosage level; or,
 2. attenuation by hearing protectors becomes insufficient to protect workers.
- C. Employees exposed at or above the 50% allowable dosage level (i.e. 85dBA average for 8 hours) shall be informed of the results of monitoring by the Environmental Health and Radiation Safety Department.
- D. Employees will be offered the opportunity to observe any monitoring conducted in their work area pursuant to this section.
- E. If exposures to noise exceed 50% of the allowable dosage, immediate action will be initiated to reduce exposure levels. If this cannot be readily achieved, employees in the affected department will be placed in the Hearing Conservation Program.
- F. Select community noise areas of concern shall be monitored as needed until sufficient data is collected to discontinue such monitoring.

II. Audiometric Testing Program (Medical Surveillance)

Audiometric testing is provided to employees whose exposures equal or exceed 50% allowable dosage, or who are subjected to noise levels above 115 decibels. This is available through Northwest Ohio Hearing Clinic, on the Health Science Campus, following the criteria listed below and in accordance with the Occupational Safety & Health Administration Occupational Noise Exposure Standard.

- A. The testing program will be charged to the department and provided at no cost to the employee. It will NOT be billed to the employee's medical insurance.
- B. Managers shall ensure that audiograms are administered to employees within six months of their first exposure at or above the action level to establish a valid baseline audiogram against which following audiograms can be compared.

Managers shall ensure that testing to establish a baseline is preceded by 14 hours without exposure to high level work place noise; hearing protective devices may satisfy this requirement.

- C. Annual audiograms shall be administered after establishing a baseline audiogram for each employee exposed at or above the action level (50% of the maximum allowable dosage or 8-hour time weighted average of 85 decibels), for comparison by the Northwest Ohio Hearing Clinic.
- D. If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift of 10 decibels at 2000, 3000, and 4000 Hertz in either ear, the employee shall be notified in writing within 21 days of the determination by the Northwest Ohio Hearing Clinic. The Employee will be retested within 30 days; these results will be used as the annual audiogram.
- E. Unless Northwest Ohio Hearing Clinic determines that the standard threshold shift was not work related or aggravated by occupational exposure, managers working with the Environmental Health and Radiation Safety Department shall ensure that the following steps are taken when a standard threshold shift occurs:
 - 1. Employees not using hearing protection devices shall be trained in their use and care, and required to use them.
 - 2. Employees already wearing hearing protection devices shall be retrained in their use and provided with devices offering greater attenuation, if necessary.
 - 3. An audiologist, otolaryngologist, or physician shall review the audiogram and determine whether there is a need for further evaluation; the employee will subsequently be informed of the referral for.
- F. If subsequent audiometric testing of an employee, whose exposure to noise is less than the maximum allowable dosage, indicates that a standard threshold shift is not persistent, the Environmental Health and Radiation Safety Department shall:
 - 1. inform the employee of the new audiometric interpretation; and,
 - 2. may discontinue use of required (as described by Table I) hearing protectors for that employee.
- G. A revised baseline may be substituted when a physician determines that the standard threshold shift is persistent, or the audiogram indicates significant improvement over original baseline audiogram.

III. Hearing Protection Devices

- A. Administrative and engineering controls should first be considered and ruled out before deciding to implement any type of hearing protection device.
- B. Managers shall make hearing protection devices available to all employees exposed to an action level dosage (i.e. 8-hour time weighted average of 85 decibels or greater) at no cost to the employee. Hearing protectors shall be replaced as necessary.
- C. Managers will ensure that hearing protection devices are worn:
 - 1. by employees who are required to wear hearing protection devices because they are exposed to the 8-hour time weighted average action level of 85 decibels A-Scale or to equivalent levels described in Table I.
 - 2. by any employee who is exposed to a 50-percent maximum allowable dosage (8-hour time weighted average of 85 decibels) or greater, and who has not yet received a baseline audiogram, or has experienced a standard threshold shift.
 - 3. by employees in an area where engineering controls are being implemented.
- D. This program shall provide employees the opportunity to select hearing protectors from a variety of devices approved by the Environmental Health and Radiation Safety Department.

Table I. **Permissible Noise Exposures for Durations Equal to or Less Than 8 Hours**

Duration Per Day, Hours	Sound Level Decibels (A-Scale) Slow Response
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8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
.25 or less	115

E. Hearing Protector Attenuation

1. The Environmental Health and Radiation Safety Department shall ensure that the noise attenuation of hearing protection devices provided to employees are appropriate for the noise environment in which they are to be used.
2. Hearing protection devices must attenuate employee exposures at least to an 8-hour time weighted average of 85 decibels or below.
3. The noise reduction rating (NRR) of hearing protection devices must be derated by at least 7 when determining the attenuation for an employee.

IV. Training Program

A. The Environmental Health and Radiation Safety Department shall provide a training program for all employees exposed to 50% or more of a maximum allowable dosage (8-hour time weighted average of 85 decibels or greater). Department managers shall ensure employee participation. Training is provided under the following guidelines.

1. The program shall be repeated annually for each employee in the Hearing Conservation Program and all materials used for training shall be made available for employee review.
2. The training program shall be updated to reflect changes in exposures and advances in hearing protection devices.
3. Specifically, the training shall address:
 - a. the effects of noise on hearing.
 - b. the purpose of hearing protection devices, advantages and disadvantages, attenuation information, instructions on selection, fitting, use, and care.
 - c. the purpose of audiometric testing and an explanation of the test itself.
4. Individuals conducting noise monitoring are required to complete an on-line competency on an annual basis unless certified by a national accrediting body.

B. The Environmental Health and Radiation Safety Department shall provide employees with information regarding Occupational Safety & Health Administration Occupational Noise Exposure Standard and shall provide a hard copy of the standard upon request.

V. Record Keeping

Audiogram (medical surveillance) documentation shall be disseminated and maintained as described in Procedure HM-08-016, Environmental/Occupational Monitoring and Medical Surveillance.

Source: Safety & Health Committee

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