

**UNIVERSITY OF WISCONSIN-STEVENSON POINT**  
**HEARING CONSERVATION PROGRAM**



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## HEARING CONSERVATION

### 1.0 PURPOSE

The purpose of the Hearing Conservation Program is to prevent employee exposure to excessive noise and associated injury and to comply with applicable state and federal standards (OSHA 29 CFR 1910.95).

### 2.0 EXPOSURE TO NOISE

Noise monitoring or measuring must be conducted only when exposures are at or above 85 dB. Factors that suggest that noise exposure in the workplace may be at this level include;

- Employee complaints about the loudness of the noise,
- Indications that employees are losing their hearing,
- Noisy conditions that make normal conversation difficult;
- Specific machines that emit noise.

The Occupational Safety and Health Administration (OSHA) has established a safe level of noise exposure to be 90 decibels for an eight-hour period. Allowable exposure levels for shorter periods of time are as follows:

90 dB for 8 hours	102 dB for 90 minutes
92 dB for 6 hours	105 dB for 60 minutes
95 dB for 4 hours	110 dB for 30 minutes
97 dB for 3 hours	115 dB for 15 minutes or less
100 dB for 2 hours	

When employees are subjected to sound exceeding those levels listed above, feasible administrative or engineering controls (such as isolation of noisy machinery) shall be utilized. If such controls fail to reduce sound levels within the required levels, personal protective equipment shall be provided and used to reduce sound levels.

Also, copies of OSHA 29 CFR 1910.95 standard shall be available for affected employees and posted in the workplace.

### 3.0 AUDIOMETRY

Employees exposed to 85 dB or greater during an 8-hour time-weighted average shall be included in an annual audiometry program at no cost to employees. The purpose of the program is to monitor employee hearing and to look for signs of hearing loss. Within 6 months of employment in an area with a noise level of 85 dB or greater, the employee shall receive a baseline audiogram performed by or under the supervision of a certified audiologist otolaryngologist, or another physician, or by a technician who is certified by the Council of Accreditation in Occupational Hearing Conservation. Testing to establish a baseline audiogram shall be preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used to provide this requirement. Audiograms shall be performed at least annually basis thereafter. For the annual screenings, the employee should have been screened during their working shift or right after if possible.

#### **4.0 EVALUATION OF AUDIOMETRIC RESULTS FOR HEARING LOSS**

Test results shall be reviewed by audiology staff for the presence of a standard threshold shift (an indication of hearing loss). An employee shall be informed of such finding in writing within 21 days of the test evaluation. Audiology staff shall discuss the results with the employee and if deemed appropriate by the audiologist, the employee may be referred for further medical attention. Upon evidence of a threshold shift, the employee shall be fitted or re-fitted for hearing protection devices and trained/re-trained in their use. The employee's supervisor must assure that protective equipment is used properly and when needed.

#### **5.0 DOSIMETRY MEASUREMENTS**

The noise measurements shall be performed for all continuous, intermittent, and impulsive sound levels from 80 decibels to 130 decibels. The employees shall be permitted to observe noise measurement. When the 8-hour Time Weighted Average is determined for a particular task, results shall be provided to the affected employee and his/her supervisor within 10 working days of the test period. The dosimeter shall be calibrated before and after the testing to ensure measurement accuracy. Results shall be reported on the report form in Appendix A. Also, monitoring shall be repeated when any change in production, process, equipment, or controls increases noise exposures.

#### **6.0 HEARING PROTECTION EQUIPMENT**

Hearing protection devices shall be provided to all employees who are exposed above 85 dB or that show signs of a threshold shift at no cost to the employees. Employees shall be allowed to choose from a variety of hearing protection devices and shall be trained in their use. Attenuation (amount of noise reduction) provided by the protective equipment shall be at least enough to lower noise exposures to an 8-hour time-weighted average of 85 decibels or below.

Supervisors shall ensure that hearing protectors are worn and also shall care of all hearing protectors provided to employees. Additionally, supervisors shall ensure proper initial fitting and control the correct use of all hearing protectors.

#### **7.0 TRAINING**

Any employee exposed to noise at or above an 8-hour time-weighted average of 85 decibels must receive hearing conservation training that covers;

- The effects of noise,
- The purpose of personal protective equipment, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care and
- The purpose of audiometric testing and explanation of the test procedures.

Training shall be repeated on an annual basis and the program shall be updated according to changes in protective equipment and work processes.

## **8.0 RECORD KEEPING**

An accurate record of all employee exposure measurements shall be maintained. Accordingly, noise exposure measurement records shall be retained for two years and audiometric test records shall be retained for the duration of the affected employee's employment.

**Appendix A**

**NOISE DOSIMETRY DATA SHEET**

Data File Name: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Job title: \_\_\_\_\_

Dosimeter manufacturer: Reed

Model / Serial #: R8085

Work location description: \_\_\_\_\_

Threshold: \_\_\_\_\_

Criterion level: \_\_\_\_\_

Exchange rate: \_\_\_\_\_

Microphone location: \_\_\_\_\_

Monitoring conducted:

Personal

Area

Are hearing protectors used?

Yes

No

If yes, what percent of the day? \_\_\_\_\_

If yes, for what particular activities? \_\_\_\_\_

**Exposure Description**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Calibration Check**

Date	Initial Reading	Time	Final Reading	Time

Calibrator: Quest QC-10 Calibrator

**Dosimetry Data**

Test number	Date	Start Time	Stop Time	Run Time	Min Level	Max Level	Time Max occurred	TWA [8:00]*
<b>TOTAL</b>								

**\*Note:** According to OSHA standard 29 CFR 1910.95, "Occupational Hearing Loss," if the 8-hour time-weighted average (TWA) exposure of an employee exceeds 85 dBA, a Hearing Conservation program shall be established, this is referred to as the "Action Level".

If the 8-hour TWA is at or above 90 dB, feasible administrative or engineering controls shall be utilized. If these controls fail to reduce sound levels to 90 dBA or less, personal protective equipment shall be provided and used to reduce sound levels to an 8-hour TWA of 90 dB or less.

**Noise Dosimetry Additional Information**

1. Reason for monitoring?
  - Random selection in area above the action level
  - Because of mobility or intermittent exposure
  - Has experienced TTS
  - Other explanation: \_\_\_\_\_  
\_\_\_\_\_
  
2. Were there any adverse environmental conditions that may have affected the readings during the wearing period? If so, what?
  
  
  
  
  
  
  
  
  
  
3. Did you suspect any tampering with the dosimeter during the time period it was worn?
  
  
  
  
  
  
  
  
  
  
4. Was an audiogram taken during the monitoring? If so, what were the results?
  
  
  
  
  
  
  
  
  
  
5. Does this individual currently use any hearing protection device? If yes, what is the type, manufacture and NRR?
  
  
  
  
  
  
  
  
  
  
6. Calculate the attenuation by subtracting 7 dB from the NRR, and subtracting the remainder from the A-weighted TWA to obtain the estimated A-weighted TWA under the ear protector. (*OSHA 1910.95, Appendix B*)

Other notes:

If you have questions regarding these results or would like more information on hearing conservation or occupational hearing loss, please contact the EHS Officer at ext. 2320.

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Environmental Health & Safety Officer

Date