

SUNY Cortland – Environmental Health and Safety Office

Hearing Conservation Program

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Hearing Conservation Program

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I. Introduction

This document is the Hearing Conservation Program for SUNY Cortland and is designed to protect employees from hearing impairment. This program complies with the Occupational Safety and Health Administration's (OSHA) Occupational Noise Exposure standard (29 CFR 1910.95), and it augments SUNY Cortland's Personal Protective Equipment Program. This program applies when noise exposures in the workplace exceed the noise levels specified in Section V. The primary components of this program are monitoring (Section VI), audiometric testing (Section VII), hearing protection devices (Section VIII), training (Section IX), and recordkeeping (Section X).

Employees and visitors are expected to observe the requirements outlined in this program whenever they are applicable. Questions and concerns regarding this program should be directed to the Environmental Health and Safety (EH&S) Office at extension 2508 or at envirohlth@cortland.edu.

It is important to mention that this program does not promote the use of hearing protection as the primary means to reduce noise exposures. Engineering and administrative controls are first considered for reducing noise exposures. When these controls are not effective or feasible, hearing protection is specified and provided without cost to employees.

While this program applies principally to employees, students are expected to observe the requirements and guidelines outlined in this program whenever they are applicable. The EH&S Office will assist faculty with implementing hearing conservation programs for students.

The EH&S Office will make available a copy of the OSHA Occupational Noise Exposure Standard to employees or their representatives. A copy of this standard is also posted in the workplace. Informational materials pertaining to the OSHA Occupational Noise Standard that are supplied to the EH&S Office by the appropriate regulatory agency will be made available to employees. Additionally, the EH&S Office will make training and education information related to SUNY Cortland's Hearing Conservation Program available to the appropriate regulatory agency upon request.

II. Responsibilities

EH&S Office – The EH&S Office is responsible for: 1) reviewing and updating this program; 2) evaluating this program's effectiveness; 3) conducting Hazard Assessments and developing Job Hazard Analysis (see Sections III and IV); 4) conducting noise measurements; 5) providing hearing conservation training; 6) coordinating baseline and annual audiograms; 7) assisting employees with completing an Employee Injury, Illness, Medical Emergency Report (form WC-1) and contacting the Accident Reporting System when a standard threshold shift occurs (see Section VII); and 8) maintaining records related to training and audiometric testing.

Employees – Employees must: 1) wear hearing protection whenever it is specified; 2) use hearing protection in accordance with instructions given during training; 3) attend scheduled baseline audiogram and annual audiometric testing sessions; and 4) complete an Employee Injury, Illness, Medical Emergency Report (form WC-1) and contact the Accident Reporting System when a standard threshold shift occurs (see Section VII).

Faculty – Faculty are responsible for: 1) providing hearing protection and requisite training to students; 2) enforcing proper use, maintenance and disposal of hearing protection; and 3) maintaining department hazard assessments (See Section III) and making them available to students.

Human Resources Office – The Human Resources Office will record each instance where a standard threshold shift occurs for annual work-related injury and illness regulatory reporting (see Section VII).

Licensed Audiologist, Otolaryngologist, or Physician – Responsible for providing services related to audiometric testing (see Section VII).

Students – Students must wear hearing protection whenever it is specified. Students must also use hearing protection in accordance with instructions given during training.

Supervisors – Supervisors are responsible for: 1) obtaining hearing protection for their employees; 2) enforcing proper use, maintenance and disposal of hearing protection within the department; 3) maintaining department hazard assessments and making them available to their employees; and 4) assisting with scheduling baseline and annual audiograms.

III. Hazard Assessments

A hazard assessment is a formal evaluation of job-specific tasks or processes and their associated hazards or risks. Once a hazard assessment is performed, appropriate personal protective equipment (PPE) is determined*. While hazard assessments are principally performed by the EH&S Office, supervisors and employees also provide input for these assessments.

*Note: Use of PPE is never the primary means for controlling hazards. Every effort should be made to eliminate hazards before PPE is selected; therefore, first consideration is given to: 1) evaluating the potential for substitution; 2) engineering controls; and then 3) administrative controls.

Hazard assessments are available in each department where PPE is required. The EH&S Office will discuss hazard assessments and PPE selection during training sessions. Supervisors are required to maintain department hazard assessments and make them available to their employees.

IV. Job Hazard Analysis

A Job Hazard Analysis (JHA) is a document that provides written procedures to help eliminate job hazards, and reduce accidents, injuries, illnesses and incidents in the workplace. A JHA: 1) outlines basic steps for a specific task; 2) identifies the hazards associated with the task; and 3) identifies safe operating procedures and PPE to eliminate or reduce hazards. Supervisors and employees are requested to use these documents to identify appropriate PPE.

V. Noise Exposures

According to the OSHA Noise Exposure Standard (29 CFR 1910.95), employers are required to implement an effective hearing conservation program when employee noise exposures equal to or exceed an 8-hour time-weighted average sound level of 85 decibels when measured on the A scale. Additionally, when engineering or administrative controls are not feasible or effective for reducing time-specified noise exposures that are listed in Table G-16 of the OSHA standard, hearing protection must be provided to employees to reduce noise exposures to acceptable levels. For example, based on Table G-16, hearing protection is required for 8-hour sound level exposures of 90 decibels, and 4-hour sound level exposures of 95 decibels.

Employees included in SUNY Cortland's Hearing Conservation Program receive: 1) hearing protection; 2) initial and annual training; and 3) baseline and annual audiograms. For hearing protection, employees are provided with a selection of ear plugs and earmuffs. Based on comfort and conditions in the work environment, the EH&S Office will assist employees with selecting suitable hearing protection.

Certain high noise areas, such as mechanical rooms, are posted "High Noise Area Hearing Protection Required". When employees and visitors access these areas, they are required to wear ear plugs which are available in dispensers, or wear other hearing protection devices. Important note: employees who are not included in SUNY Cortland's Hearing Conservation Program may wear hearing protection devices for comfort or when they perceive noise levels are elevated.

VI. Monitoring

The EH&S Office monitors potential high noise areas to determine sound levels or noise exposures. Exposure measurements include continuous, intermittent and impulsive noise within an 80 to 130 decibel range. Equipment used for monitoring is calibrated before and after each use. Employees who are exposed to noise levels as specified in Section V of this program are included in SUNY Cortland's Hearing Conservation Program. These employees receive the results of noise monitoring and they, or their representatives, are given an opportunity to observe noise monitoring performed by the EH&S Office.

VII. Audiometric Testing

Employees in SUNY Cortland's Hearing Conservation Program receive audiometric testing by a licensed or certified audiologist, otolaryngologist, or physician. This testing is provided without cost to the employee.

Audiometric testing consists of a baseline audiogram and annual audiograms. The baseline audiogram is a reference audiogram against which future audiograms are compared. Baseline audiograms are performed within six months of an employee's first exposure to working in a high noise area. Before receiving a baseline audiogram, employees are advised to remain free of workplace noise for at least 14 hours prior to the audiogram. Once a baseline audiogram is performed, employees receive annual audiograms. Each annual audiogram is compared to the baseline audiogram to determine if significant hearing loss or a standard threshold shift has occurred*. When a standard threshold shift has occurred, employees are informed of this fact in writing within 21 days. Written correspondence sent to employees will include, whenever applicable, recommendations for further testing. For occupational injury and illness reporting purposes, employees will be required to complete an Employee Injury, Illness, Medical Emergency Report (form WC-1) and contact the Accident Reporting System. Moreover, each instance where a standard threshold shift has occurred is

recorded by the Human Resources Office for annual work related injury and illness regulatory reporting.

*A standard threshold shift is a change in hearing threshold relative to the baseline audiogram of an average of 10 decibels or more at 2000, 3000, and 4000 Hertz.

Unless a physician determines that an employee's standard threshold shift is not work related or aggravated by occupational noise exposure, the EH&S Office will: 1) refit the employee with hearing protection; 2) retrain the employee in the use of hearing protection; and 3) provide the employee with hearing protection that provides greater attenuation, if necessary. Other actions that might be taken for a work-related standard threshold shift include:

- Referring the employee for a clinical audiological evaluation or otological examination, as appropriate, if additional testing is necessary or if it is suspected that a medical pathology of the ear is caused by or aggravated by the wearing of hearing protection; or
- Informing the employee of the need for an otological examination if a medical pathology of the ear that is unrelated to the use of hearing protectors is suspected.

When it is determined that further evaluations are required, the EH&S Office will, when necessary, provide the following information to the audiologist, otolaryngologist, or physician:

- A copy of the OSHA occupational noise exposure standard;
- The baseline audiogram and the most recent audiogram of the employee to be evaluated;
- Measurements of background sound pressure levels in the audiometric test room as required in Appendix D of the OSHA Occupational Noise Exposure standard; and
- Records of audiometric calibrations as required by the OSHA occupational noise exposure standard.

Finally, if subsequent audiometric testing of an employee indicates that a standard threshold shift is not present, the employee will be informed of the new audiometric interpretation. Additionally, the annual audiogram may be substituted for the baseline audiogram when: 1) the standard threshold shift revealed by the audiogram is persistent; or 2) the hearing threshold shown on the annual audiogram indicates significant improvement over the baseline audiogram. This determination is made by the audiologist, otolaryngologist, or physician.

VIII. Hearing Protection Devices

Selecting proper hearing protection is crucial. Hearing protection devices must, at a minimum, reduce noise exposure below 8-hour time-weighted average exposures discussed in Section V of this program. While the effectiveness of the hearing protection device is important, comfort is also evaluated.

Hearing protection devices can be broadly categorized into: 1) ear plugs, which are placed into or against the entrance to the ear canal to form a seal and block sound; 2) earmuffs, which fit over and around the ears to provide a seal against the head; and 3) helmets, which encase the entire head. Within these categories, different styles of hearing protection devices are available. For example, ear plugs are available in: compressible foam; premolded materials; formable materials; custom molded materials; and semi-insert headband protectors.

The EH&S Office will assist employees with selecting appropriate hearing protection. Employees are given an opportunity to select a variety of hearing protection devices. In most instances, employees use ear plugs in high noise areas.

IX. Training

Employees who are included in SUNY Cortland's Hearing Conservation Program receive initial training and annual training. This training includes:

- Engineering and administrative control measures used to reduce noise exposures;
- The effects of noise on hearing;
- The purpose of hearing protection;
- Advantages, disadvantages, and attenuation of various types of hearing protection;
- Instruction on selection, fitting, use and care of hearing protection; and
- The purpose of audiometric testing, and an explanation of audiometric test procedures.

Training records will be maintained by the EH&S Office.

X. Recordkeeping

The EH&S Office maintains records of noise measurements and audiometric testing. Audiometric test records include:

- Name and job classification of the employee;
- Date of audiometric testing;

- The examiner's name;
- Date of the last acoustic or exhaustive calibration of the audiometer; and
- The employee's most recent noise exposure assessment.

Whereas, records of noise measurements are retained for at least two years, audiometric test records are retained for the duration of one's employment. These records are provided upon request to employees, former employees, employees' representatives, and the appropriate regulatory agency.