



LOWER COLUMBIA COLLEGE HEARING CONSERVATION PROGRAM

Background

Exposure to sound levels or “noise” can produce temporary or permanent hearing loss. Because noise induced hearing loss cannot be cured or corrected with hearing aids, Lower Columbia College (LCC) strives to protect employees, students and visitors from the damaging effects of noise.

Policy

This hearing conservation program has been developed to meet the requirements of WAC 296-817-100 thru 296-817-600. The administration of LCC dedicates resources to achieve full compliance through the implementation of this program as described in this document.

Applicability

This program applies to all LCC employees that are exposed to 85 dBA or greater calculated as an eight-hour time weighted average.

Exposure assessments will be conducted by the Director of Environmental Health and Safety (EH&S) or a qualified designee.

Elements of the Hearing Conservation Program

This program covers the following:

Definitions

Evaluation and monitoring of noise exposures

Noise control

Hearing protector availability

Audiometric testing for affected employees

Annual training for affected employees

Posting of warning signs in affected areas

Documentation and record keeping for audiometric and monitoring results

Access to audiometric and monitoring records

Definitions (refer to WAC 296-817 for additional definitions)

Audiogram

Results of a hearing test showing the softest noise a person can hear at specific frequencies.

Baseline Audiogram	The initial audiogram against which future audiograms are compared to determine if there has been a change in hearing.
Continuous Noise	Noise where the maximum level occurs more than once per second.
Decibel (dBA)	Unit of measurement of sound level.
Hertz (Hz)	Unit of measurement of frequency equip to cycles per second.
Impulse/ Impact Noise	Noise where the maximum level occurs less than once per second.
Noise Dosimeter	An instrument capable of measuring sound levels and averaging noise over time.
Standard Threshold Shift	A hearing change of an average of at least 10dB at 2,000; 3,000; or 4,000 Hz when compared to the baseline audiogram.
Time Weighted Average (TWA)	Average noise exposure usually as average noise during an eight hour working shift.

Evaluation and Monitoring of Noise Exposures

LCC employees shall notify EH&S if they believe an area is excessively noisy.
Generally, if a person needs to raise their voice to be heard two feet away, the work area should be monitored for noise.

Monitoring should be requested anytime there is a new or modified process or equipment.

Noise monitoring will be conducted by EH&S or a qualified designee for all employees working in noisy areas. Noise dosimeters used during monitoring will meet the requirements specified in WAC 296-817. The noise dosimeter will be calibrated by a qualified person before and after each use.

All continuous, intermittent and impulsive noise from 80 to 130 dBA shall be integrated into the noise dose.

If the monitoring results indicate that noise exposure is reasonably anticipated to exceed 85 dBA on a time weighted average, that employee or groups of employees will be included in the hearing conservation program. Employees will be informed in writing of their inclusion in the program.

The following employee groups have been identified, through audiometric testing, to be at risk of experiencing an 85 dBA TWA during their working shift:

Campus Services Maintenance Employees that work in the carpentry shop.
Campus Services Grounds Employees
Instructional Welding Employees

Noise Control

Supervisors and faculty shall ensure that hearing protectors are worn by employees exposed to:

1. 85 dBA or greater TWA
2. 115 dBA or greater continuous noise
3. Impact or impulse noise measured at 140 dBA or greater

Supervisors will need to train their employees on the use of hearing protection in areas where hearing protection is required.

Employees will be able to select their protectors from two different types. Hearing protectors must be rated to attenuate noise exposures below 85 dBA TWA. CMS Grounds employees must wear protection rated to attenuate noise by 22 dBA or greater base on the noise level of grounds equipment monitored on 10/07/16 (see Appendix A). For more information of selecting hearing protection, contact EH&S.

The adequacy of hearing protectors must be re-evaluated whenever employee noise exposures increase to the extent that hearing protectors provided may no longer provide adequate attenuation. LCC will provide employees with more effective hearing protection when necessary. Contact EH&S to request a noise assessment.

Audiometric Testing for Affected Employees

All employees whose noise exposure equals or exceeds the eight-hour time weighted average of 85 dBA will have an annual audiometric evaluation. EH&S will schedule a baseline and annual audiograms with qualified specialists. Tests will be performed in accordance with WAC 296-817.

Baseline audiograms will be performed within 180 days of inclusions in the program. Employees shall not be exposed to high levels of occupational or non-occupational noise for a minimum 14 hours prior to the baseline exam. This may be accomplished by wearing hearing protectors or by avoiding high noise areas.

Therefore, annual hearing tests will be performed and compared to baseline audiograms to determine whether a threshold shift has occurred or further evaluation is needed. The comparison will be performed by the company performing the tests and

will comply with WAC 296-817. Employees will be notified within 21 days after EH&S received the results of any change in hearing from their previous audiogram, or if further evaluation is needed.

If additional testing is required, or if the employee has a medical pathology of the ear which is caused or aggravated by the use of hearing protection, EH&S will refer the employee to an audiologist, otolaryngologist, or qualified physician. However, if the audiometric test reveals that the employee may have a medical pathology not related to the use of hearing protection EH&S will notify the employee of the need for an ontological exam, but will not schedule or pay for the exam.

Annual Testing for Affected Employees

The Director of EH&S will arrange for employees in this program to receive annual training. Supervisors are responsible for ensuring that employees complete the training sessions.

Training will cover the following:

1. The effects of noise on hearing
2. The purpose of hearing protectors including advantages and disadvantages
3. Attenuation of different types of hearing protectors
4. Selection, fitting, use and care if hearing protectors
5. Explanation of audiometric testing and procedures
6. The right to access records.

Posting of Warning Signs in Affected Areas

Areas that exceed 115 dBA or have impact or impulse noise of 140 dBA or greater will be posted as hearing protection areas and require the use of hearing protectors. Areas that meet these noise levels will be described in this section as they become identified.

Documentation and Record Keeping

The Director of EH&S will maintain noise monitoring records indefinitely and maintain the most recent noise assessment for employees.

The Director of EH&S will maintain copies of the training class outlines and training completion records.

The Department of Human Resources shall maintain copies if audiograms which will include the employee's name, job classification, date of the audiogram, date of the last calibration of audiogram equipment and levels of background sound pressure in the audiometric test room.

Audiometric test records shall be retained by EH&S for the duration of the employee's employment.

Access to Information

All employee records required by this policy shall be available to employees and former employees.

The college will make available to affected employees or their representatives copies of the Hearing Conservation Standard, WAC 296-817 and this program.

The college will provide, upon request, all materials and records pertaining to this program to the Department of Labor and Industries.

Appendix A

Noise Area Measurements

<u>Area, equipment, or job duties</u>	<u>Noise level in decibels</u>
Carpentry Shop (CMS)	88.0dBA (2007)
Carpentry Shop (RCA) (chop saw and table saw running together with dust collection system)	96 dBA (2016)
John Deere 2015 Model # WG48A (blades engaged)	96 dBA (2016)
Sidewalk Vacuum: Minuteman Parker sidewalk vacuum Model # PVO165B (2016)	86dBA
Walker Mower Model # MDDGHS (blades engaged)	98 dBA (2016)
Welding Shop	86.5 dBA(2007)

Hearing Protection Used

Brand name of hearing protection	Sizes available (where applicable)
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Moldex 6604 (Welding Shop)	
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Moldex NRR 33 dB (CMS Shop)	
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Multimax NRR 31, size 6-11mm (Grounds area, CMS)	
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Uine Bullet Ear Plugs (RCA Carpentry Shop)	
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Peltor Optime 105 Earmuffs (RCA Carpentry Shop)	
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Howard Leight Thunder 29 Earmuffs (CMS general)	
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Hearing protection is available for the following person(s) or at the following locations:

ALL CMS Employees

All Welding Instructors

RCA Carpentry Shop

Hearing protection is required for the following locations, job duties or when the following equipment is used:

When using power tools with a noise level greater than, or equal to 85 dBA.

When working in campus carpentry and welding shops.