

Calvin College Hearing Conservation Program		Revision 2	
Prepared by: Heather Chapman	Date: 7/8/10	Approved by: Cabinet	Date:

1.0 POLICY

It is the policy of Calvin College to comply with MIOSHA Part 380 and the OSHA Occupational Noise Standard (29 CFR 1910.95).

2.0 PURPOSE

The Hearing Conservation Program is designed to promote awareness of hearing protection practices that are available while working at Calvin College. While all employees are expected to be trained and aware of this hearing conservation program, this policy specifically applies to those employees exposed over this action level of 85 dBA.

3.0 DEFINITIONS

- Action level – 8 hour, time weighted average noise exposure of 85 decibels measured on the A scale, slow response.
- Audiogram – a chart, graph or table resulting from an audiometric test showing an individual’s hearing threshold levels as a function of frequency.
- Baseline Audiogram – audiogram against which future audiograms are compared.
- Decibel – a unit of measurement of sound pressure level
- Hertz – unit of measurement of frequency that is numerically equal to cycles per second.
- Standard Threshold Shift – change in the hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000 and 4000 Hz in either ear.
- Time weighted average sound level – sound level which, if constant over an 8 hour exposure, would result in the same noise dose as measured.

4.0 RESPONSIBILITIES

- All Employees
 - Wear and maintain hearing protective devices
 - Participate in annual training and audiometric testing if exposed to excessive noise levels
- Med-1
 - Conduct baseline and annual audiograms for employees covered under this plan
 - Maintain records of audiograms
 - Shall notify EH&S of all employees who have experienced significant changes in hearing (standard threshold shifts) in order that follow up investigations may be conducted.
- Environmental Health & Safety
 - Identify work areas and equipment where noise levels equal or exceed 85 dBA
 - Identify employees, through personal dosimetry, whose noise exposure level equals or exceeds an 8 hour TWA of 85 dBA
 - Train employees on the use of PPE, this policy and regulatory requirements
 - Identify noise control measures, including engineering and administrative controls, and make recommendations

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- Provide regulatory guidance and assistance in compliance with MIOSHA regulations
- Maintain all records of employee training and hazard evaluations (work area noise surveys and personal monitoring)
- Maintain employee medical evaluations and audiograms at the EH&S department in the Physical Plant
- Review policy annually
- Directors and Department Chairs
 - Ensure that their employees exposed to noise levels equal to or greater than 85 dBA on an 8-hour TWA have access to appropriate hearing protective devices
 - Support this plan
- Supervisors
 - Enforce the policy, proper use of hearing protective devices, and engineering and administrative controls.

5.0 PROCEDURE

- Noise Assessment Exposure
 - EH&S will identify work areas or job tasks where noise levels exceed permissible exposure limits. When levels that exceed 85dBA are found, a reasonable effort will be made to use engineering and or administrative controls to reduce exposure.
 - Monitoring includes area and personal sampling. Area measurements will generally be obtained first. If noise levels exceed 85dBA, personal monitoring using dosimeters shall be performed.
 - Area survey- In an area survey, measurements of noise levels will be recorded using a sound level meter. Area monitoring is conducted using a calibrated sound level meter. If noise levels within the area are below 85 dBA no further testing will be necessary. If levels above 85 dBA are detected noise levels will be recorded, where they were taken and the source of the noise. Depending on the amount of time the employees are exposed to noise above 85 dBA, the EHOS officer will determine if personal dosimetry is indicated.
 - Personal dosimetry- Calibrated noise dosimeters will be used to determine employee's noise exposure levels. Those employees whose noise exposure equals or exceeds 85 dBA on an 8-hour TWA will be included in the Calvin Hearing Conservation Program.
 - Annual noise level surveys will be performed to determine which jobs, areas and/or employees are exposed to the 8 hour MIOSHA TWA action level of 85 decibels (A scale).
 - Re-evaluation of work area – work areas will be re-evaluated when any change in production, equipment or controls occurs that may alter the noise exposure of any employee.
- Audiometric Testing
 - Audiometric testing will be conducted at either of the local Med-1 locations. An initial baseline audiometric test will be obtained.

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- The object of the audiometric testing program is to ensure that employees are not losing their hearing by comparing the baseline audiogram to the employee's annual audiogram.
- Audiometric testing will be provided to all employees with noise exposure levels of 85 dBA or greater on an 8-hour TWA.
- Annual retesting will be performed for all employees covered under the Hearing Conservation Program.
- Employees who experience a standard threshold shift (STS) will be notified by EHS in writing within 21 days
- **Hearing Protection Controls**
 - When permissible exposure levels for noise are exceeded, feasible engineering or administrative controls will be instituted. If the controls do not reduce noise levels to within permissible exposure limits, then hearing protection will be provided and used to reduce noise levels to an acceptable level.
 - Engineering controls - The primary means of reducing or eliminating personnel noise exposure shall be through the use of engineering controls. Engineering controls are defined as any modification or replacement of equipment or other physical change at the noise source or along the transmission path that reduces the noise level at the employee's ear.
 - Administrative controls - Administrative controls are defined as changes in the work schedule or operations that reduce noise exposure. Administrative controls follow engineering controls as the preferred method of noise reduction.
 - Personal protective equipment – Hearing protection devices shall be used only when engineering or administrative controls are not feasible. Hearing protection may be worn by employees when they must enter or work in an area where the noise level is greater than 85 to 90 dBA. It is the employer's responsibility to ensure that hearing protection is worn by employees:
 - Whose noise exposure exceeds 90 dBA TWA
 - Whose exposure equals or exceeds 85 dBA TWA and have not yet had a baseline evaluation
 - Who have experienced a Standard Threshold Shift
 - Who have shorter periods of exposure to higher levels of noise

Permissible Noise Exposures

Duration per day, hours	Sound level dBA
8	90
6	92
4	95
3	97
2	100
1	102
1-1/2	105
1/2	110
1/4 or less	115

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6.0 TRAINING

- The training program will be presented to employees covered under the Hearing Conservation Program on an annual basis. At a minimum, the training program will include:
 - The effects of noise on hearing
 - The purpose, advantages and disadvantages, and the attenuation of various types of hearing protectors
 - Instructions on selection, fitting, use and care of hearing protection equipment and
 - The purpose of audiometric testing and an explanation of the test procedures

7.0 RECORDKEEPING

Revision	Date	Description
1	7/10/09	Formatting changed
2	7/8/10	Changed location of audiometric testing in section 5.0; changed storage location of records in section 7.0