

Hearing Conservation Program



California State University, Chico

Department of Environmental Health and Safety

Table of Contents

<u>Section</u>	<u>Page</u>
1.0 Introduction	1
1.1 Purpose.....	1
1.2 Scope.....	1
2.0 Responsibilities	2
2.1 Environmental Health and Safety (EHS).....	2
2.2 Supervisors	2
2.3 Employees.....	2
3.0 Noise Assessments/Exposure Monitoring	3
4.0 Audiometric Testing and Evaluation	4
4.1 Baseline Audiogram	4
4.2 Annual Testing.....	4
4.3 Comparison/Threshold Shift	4
5.0 Hearing Protection	5
5.1 Requirements	5
5.2 Attenuation	5
6.0 Training.....	6
7.0 Recordkeeping.....	7
7.1 Audiometric Tests.....	7
7.2 Noise Assessments and Exposure Monitoring.....	7

Hearing Conservation Record of Revisions

Revision	By	Date	Description of Revision
1	HS	6/14/18	Removed List of Tables and Glossary. Corrected regulation numbers in Introduction.
2	HS	11/5/18	Added Responsibilities section. Removed Noise Exposure Computation section. Reorganized sections to follow regulation more closely.
3	HS	7/18/19	Amended Responsibilities section. Included Purpose and Scope to Introduction section. Added language to Audiometric Testing and Evaluation section.
4	HS	9/17/19	Updated Section 6.0 Training information
5	HS	10/9/20	Updated Section 4.0 Audiometric Testing and Evaluations

Legend:

Holly Swan, Industrial Hygienist/Environmental Program Manager

1.0

INTRODUCTION

It is the goal of CSU, Chico (the “University”) to maintain, insofar as is reasonably possible, an environment that will not adversely affect the health, safety, and wellbeing of students, employees, visitors, and the surrounding community. To this end, the University has established a Hearing Conservation Program.

1.1 Purpose

The purpose of this Program is to establish the acceptable limits of Noise Exposure at California State University, Chico (the “University” henceforth). Title 8, Sections 5095-5100 of the California Code of Regulations (CCR) has established acceptable limits for the amount and duration of occupational noise employees can be exposed to. The University is required to provide employees with proper protection against the effects of noise exposure when sound levels exceed an 8-hour time weighted average (“TWA-8”) of 90 decibels (the Permissible Exposure Limit or PEL). The protective measures may be provided either through engineering or administrative controls. If those control measures fail to reduce the noise within the acceptable limits, personal protective equipment shall be provided. Employees are required to follow guidelines set forth in this plan. Employees should read this manual carefully. Any questions regarding the contents of this plan should be brought to the attention of their immediate supervisors.

1.2 Scope

Whenever employee noise exposures equal or exceed an 8-hour time weighted average (“TWA-8”) sound level of 85 decibels (the Action Level) measured on an A-scale (slow response), or equivalently, a dose of fifty percent, the employee must be included in the Hearing Conservation Program.

2.0

RESPONSIBILITIES

2.1 Environmental Health and Safety (EHS)

- Develop and maintain the Hearing Conservation Program to ensure it meets all applicable regulatory requirements.
- Monitor work site noise levels and perform noise exposure assessments as requested and when determined to be necessary by supervisor or EHS.
- Maintain records of noise exposure assessments.
- Inform employees and supervisors of results of noise level and dosimeter readings.
- Provide regulatory knowledge to supervisors and employees regarding the Hearing Conservation standard.
- Prepare health care provider required paperwork to employees for audiograms.
- Work in conjunction with supervisors to identify employees or groups of employees who will need training.

2.2 Supervisors

- Notify EHS of employees who need training. Ensure assigned training is completed by direct reports.
- Provide work environments that minimize noise to the greatest extent possible using engineering and administrative controls.
- Request EHS to perform noise assessments and exposure monitoring.
- Provide hearing protection devices to employees and ensure that employees use such devices when appropriate.
- Notify EHS of process, materials, or equipment changes that may alter noise exposures.
- Notify employees of their need to obtain baseline and annual audiograms.
- Post a copy of occupational noise regulation, CCR Title 8, Section 5095-5100, in an area where employees have access to.

2.3 Employees

- Complete assigned training.
- Understand and comply with campus health and safety policies and procedures.
- Wear approved hearing protective devices when required.
- Maintain hearing protection in sanitary condition and proper working order.
- Report noise hazards and hearing protection problems to supervisor or EHS.

3.0 NOISE ASSESSMENTS/EXPOSURE MONITORING

Environmental Health and Safety has the equipment necessary for measuring noise levels using a calibrated sound level meter or personal dosimeter. Employees or their supervisors should contact EHS to schedule noise assessments/exposure monitoring if excessive occupational noise is suspected, or if previously monitored noise levels have changed due to changes in production, process, equipment or controls. EHS may also identify employees who need to be assessed. EHS will conduct a noise survey, either by area monitoring or personal monitoring, to determine if the noise levels are permissible. All continuous, intermittent and impulsive sound levels from 80 decibels to 130 decibels shall be integrated into the computation. Noise assessments and exposure monitoring will be made without regard to any attenuation provided by the use of personal protective equipment. Employees can observe any measurements of employee noise assessment and will be notified of the exposure results.

4.0 AUDIOMETRIC TESTING AND EVALUATION

The University provides audiometric testing, at no cost, to all employees whose exposure may equal or exceed the action level. The audiometric tests are conducted through a contract with a health care provider who meets the requirements of the standard including ensuring the appropriate audiometric instrumentation is utilized in accordance with Appendix B of the standard, providing a testing environment in accordance with Appendix C of the standard, and ensuring proper calibration and maintenance of audiometric instrumentation with Appendix D of the standard.

Audiogram testing must be preceded by at least 14-hours without exposure to occupational or non-occupational noise above 80 dBA. This requirement may be met by wearing hearing protectors that will reduce the employee's exposure to a sound level of 80 dBA or below.

4.1 Baseline Audiogram

The University shall establish a baseline audiogram which each subsequent audiogram can be compared to. Testing to establish a baseline audiogram must be preceded by at least 14-hours without exposure to workplace noise. This requirement may be met by wearing hearing protectors which reduce the sound level to 80 decibels or below.

4.2 Annual Testing

At least annually, after obtaining the baseline audiogram, the University shall obtain a new audiogram for each employee exposed at or above the action level.

4.3 Comparison/Threshold Shift

Each employee's annual audiogram shall be compared to their baseline audiogram to determine if there is a threshold shift (defined as a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear). The contracted health care provider will consider age corrections in accordance with Appendix F of the standard.

If a comparison of the annual audiogram to the baseline audiogram indicates a threshold shift, the employee shall be informed of this fact, in writing, within 21-days. Unless the health care provider determines that the threshold shift is not work related or aggravated by occupational noise exposure, the following steps will be taken to prevent further hearing loss:

- An employee not using hearing protectors shall be fitted with hearing protectors, trained in their use and care, and required to use them; and
- An employee already using the hearing protectors shall be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary.
- Refer the employee for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if the University suspects that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.

- Inform the employee of the need for an otological examination if a medical pathology of the ear which is unrelated to the use of hearing protectors is suspected.

If the annual audiogram shows an employee has suffered a threshold shift, the University may obtain a retest within 30-days and consider the results of the retest as the annual audiogram.

5.0

HEARING PROTECTION

Each department will make hearing protectors available to all employees exposed to a TWA-8 of 85 dBA or greater at no cost to employees. Employees will be given the choice of more than one type of ear protection, and the employees will be trained in the fitting and care of the equipment. The University encourages all employees to wear hearing protection in all situations where excessive noise is generated even though the noise level is below the PEL.

5.1 Requirements

Employees are required to wear hearing protectors in the following circumstances:

- When employees are subjected to sound levels exceeding those in Table N-1;
- If an employee is exposed to noise at or above the action level and a standard threshold shift has occurred; or
- If an employee is exposed to noise at or above the action level and a baseline audiogram has not yet been established.

TABLE N-1 - Permissible Noise Exposure

Permissible Duration per Workday (Not to be exceeded)

<i>Sound Level (dBA)</i>	<i>Hours-Minutes</i>	<i>Hours</i>
90	8-0	8.00
92	6-4	6.06
94	4-36	4.60
96	3-29	3.48
98	2-38	2.63
100	2-0	2.00
102	1-31	1.52
104	1-9	1.15
106	0-52	0.86
108	0-40	0.66
110	0-30	0.50
112	0-23	0.38
114	0-17	0.28

5.2 Attenuation

Hearing protection shall exceed the minimum noise attenuation rating required to ensure the employee's noise exposure remains below the PEL, or the AL for employees who have experienced a standard threshold shift. The adequacy of hearing protector attenuation will be re-evaluated whenever employee noise exposures increase to the extent that the hearing protectors provided may no longer provide adequate attenuation. The University will provide more effective hearing protectors when necessary.

6.0

TRAINING

After an evaluation of workplace noise level determines affected employees, a training program will be initiated and repeated annually for each employee included in the Hearing Conservation Program. Where possible, groups of employees will be auto-assigned training based on job positions; if jobs vary, individuals will be assigned when it is deemed necessary. The training will be assigned through the CSU Learn system.

Information provided in the training program will be updated to be consistent with changes in protective equipment and work processes. Some of the information made available through the training includes:

- The effects of noise on hearing;
- The purpose and advantages of hearing protection, attenuation of various types;
- Instructions on selecting, fitting, use, and care of hearing protectors; and
- The purpose of audiometric testing and an explanation of the test procedures.

Upon request, EHS will provide employees with any informational materials related to the Hearing Conservation Program.

7.0

RECORDKEEPING

7.1 Audiometric Tests

The hired contractor maintains all employee audiometric test records. The test records will be retained for the duration of employment.

7.2 Noise Assessments and Exposure Monitoring

EHS will retain noise assessments and exposure monitoring records for 2-years.