HEARING CONSERVATION PROGRAM

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INTRODUCTION

PURPOSE
The Hearing Conservation Program is designed to ensure that the campus community does not suffer health effects from excessive noise. Some operations may expose faculty, staff, or students to high noise levels. This program is a part of the Institute's overall commitment toward a safe and healthy workplace.

PROGRAM DESCRIPTION
The objective of the Caltech Hearing Conservation Program (HCP) is to prevent permanent noise induced hearing loss resulting from on-the-job noise exposure and to comply with Title 8 of the California Code of Regulations, § 5095-5100.

Caltech's Hearing Conservation Program includes:
• Noise Surveys
• Audiometric Testing
• Hearing Protection
• Employee Education and Training
• Recordkeeping

SCOPE
This Hearing Conservation Program applies whenever employee noise exposures equal or exceed an 8-hour time-weighted average sound level (TWA) of 85 decibels (dBA).

RESPONSIBILITIES

SUPERVISOR/DEPARTMENT
• Notifying the Environment, Health, and Safety Office (EH&S) of noise complaints or potential noise hazards.
• Ensuring that employees are provided with hearing protectors when required.
• Ensuring that employees properly use and care for hearing protectors.
• Ensuring that noise-hazardous equipment/areas are properly labeled or posted.
• Notifying the Environment, Health, and Safety Office (EH&S) of process, materials, or equipment changes that may alter noise exposures.
• Ensuring that potentially overexposed employees are provided with a baseline audiometric hearing test prior to the initial work assignment and then annually thereafter. High noise exposure must be avoided for 14 hours prior to an exam.
• Enforcing the use of hearing protectors or noise reduction procedures in the designated areas/assignments.
• Ensuring new employee HCP orientation/training and annual refresher HCP training of employees are provided to all potentially overexposed personnel.
ENVIRONMENT, HEALTH, AND SAFETY

- Administering the Hearing Conservation Program.
- Evaluating workplace and employee noise:
  - Noise assessment to determine if administrative and engineering controls are needed and how they should be implemented.
  - Identification of areas or processes that require noise abatement and/or posting.
  - Evaluation and periodic re-evaluation of employees' exposure, by job classification, to determine which job titles need to be included in the Hearing Conservation Program.
- Maintaining records of employee exposure measurements.
- Ensuring annual training on HCP.

EMPLOYEES

- Wearing hearing protection devices and following any noise reduction procedures as required.
- Storing and maintaining hearing protection devices in a clean and sanitary manner.
- Reporting noise hazards and hearing protector problems to their supervisor.
- Attending required training sessions on Caltech’s Hearing Conservation Program.

CALTECH’S OCCUPATIONAL HEALTH PROVIDER AND INDUSTRIAL HEARING MANAGEMENT

- Providing baseline, annual, and post-employment audiometric testing.
- Performing audiogram evaluations.
- Communicate any standard threshold shifts to EH&S.
- Maintaining audiometric test records.

CALTECH’S RISK MANAGEMENT

Shall record cases of occupational hearing loss if the present employee’s current audiogram reveals a work-related Standard Threshold Shift (STS) of 25 decibels or more (averaged at 2000, 3000, and 4000 Hz) above audiometric zero in the same ear on the Cal/OSHA Form 300 (or equivalent). [Title 8 CCR §14300.10]

PROGRAM COMPONENTS

NOISE SURVEYS/MONITORING

The Environment, Health, and Safety Office (EH&S) tests work areas where noise levels may equal or exceed 85 dBA. Testing confirms noise levels and identifies workers for enrollment in the Hearing Conservation Program. Testing also allows for the proper selection of hearing protection. Sound level testing is performed according to Cal-OSHA guidelines. The EH&S office can initiate sound level surveys and campus community can contact
the EH&S office to request a sound level survey:
- If they suspect exposure to excessive noise on the job.
- If previously monitored areas may have changed.
- If the assigned hearing protectors are suspected of being inadequate.

EH&S performs additional sound level surveys whenever a change in process, equipment, or controls increases noise exposures such that:
- Additional employees may be exposed to or above 85 dBA or
- The hearing protection being used may no longer provide adequate protection for the noise exposure.

Affected employees can observe area sound level tests.

RESULTS
EH&S will provide the results of these surveys to the area supervisor. Supervisors will notify each employee exposed at or above the action level of the results of the monitoring. Records of monitoring are kept on file at EH&S.

Employees exposed to noise at an 8-hour time-weighted average at or above 85 dBA will be placed on the Hearing Conservation Program. These individuals receive:
- Audiometric testing.
- Hearing protection.
- Training on the fitting, use, and care of hearing protection.

AUDIOMETRIC TESTING
The Institute provides audiograms to employees on the Hearing Conservation Program. Testing establishes a baseline and detects if a person has suffered a significant hearing loss, also called a “standard threshold shift”.

EH&S arranges audiograms for employees. EH&S will notify the department when it is time for annual audiograms. Audiometric tests are performed by a mobile test van. Employees who miss the test van may obtain their audiograms at a designated Health Care Facility.

The employee’s department will pay for the cost of initial tests. Any additional test(s) or examination(s) to determine the cause of any hearing loss will be paid through Worker’s Compensation.

BASELINE
New employees will be offered a baseline test within six months of employment in an environment requiring hearing protection. It is necessary that employees not be exposed to noise levels at or above 80 dBA for at least 14 hours prior to the test.

ANNUAL
All workers in the program are offered annual audiograms. These tests are conducted during the normal work shift. Each employee’s audiogram will be compared to that employee’s baseline to determine if the audiogram is valid and if a
standard threshold shift has occurred. Audiograms detecting a threshold shift will be repeated within 30 days.

RESULTS
If the final test results confirm that an employee has suffered a standard threshold shift, the employee shall be informed of this fact, in writing, within 21 days of the determination.

A physician will determine whether a standard threshold shift is work-related or may be aggravated by occupational noise exposure. When a standard threshold shift occurs, the following steps will be taken:

- If an employee is not using hearing protection he/she will be fitted with hearing protectors, trained in their use and care, and required to use them; or
- If the employee is already using hearing protection he/she will be refitted and retrained in their proper use, and if necessary, be provided with hearing protectors offering greater protection.

HEARING PROTECTION
Hearing protection is required for all employees exposed to an 8-hour time-weighted average of 85 decibels or greater. Hearing protection used must reduce employee exposure to less than an 8-hour time-weighted average of 85 decibels.

The Institute has a variety of hearing protection types available to employees. EH&S determines appropriate protectors based on measured noise levels and will ensure proper initial fitting. Departmental supervisors will supervise the correct use of all hearing protectors. Hearing protection needs to be replaced as necessary.

If there is any change in any process or operation, hearing protection will be re-evaluated by EH&S.

EMPLOYEE EDUCATION AND TRAINING
Annual training is provided to employees enrolled in the Hearing Conservation Program. The training covers the following aspects of the Hearing Conservation Program:

- The effects of noise and hearing loss.
- The responsibilities of the Institute and workers in preventing noise induced hearing loss.
- The purpose of hearing protection.
- The advantages, disadvantages, and attenuation of various types; and instructions on selection, fitting, use, and care.
- The purpose of audiometric testing and an explanation of the test procedures.
- The findings of any work area monitoring.

RECORDKEEPING
All records of employee exposure including the results of all surveys, audiograms, and training will be retained for the following periods:
• Area and Personal monitoring records will be retained for at least two years at the EH&S Office.
• Audiometric test records will be retained for the duration of the affected employee's employment at Industrial Hearing Management or at the clinic where follow-up audiograms were performed.
• EH&S maintains hearing conservation training records.

All records will be provided upon request to employees, former employees, designated representatives, and to any authorized Cal-OSHA representative.