

# **CHAPTER 16**

# **THE HEARING CONSERVATION PROGRAM**

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## I. Policy

It shall be the policy of all County departments to conduct a hearing conservation program based on requirements contained in California Administrative Code, Title 8, Section 5096.

## II. Sound Level Survey

- A. All work areas shall be surveyed to determine the highest noise level. The results shall be recorded. This survey shall be conducted annually and when there is a change in machinery.
  - 1. A sound level meter conforming to ANSI S1.4-1971 (R1976), type 1 or 2, set the "A" scale, slow response, shall be used.
  - 2. The sound level meter shall be calibrated before and after each use. The calibrator must be calibrated annually.
- B. Each area which exceeds 90 DBA shall be thoroughly surveyed to noise source(s) and an area profile of those results recorded.
- C. Copies of these surveys shall be forwarded to the department head and the Risk Manager.

## III. Exposure Limits for Noise

- A. Employees shall not be exposed to noise which exceeds the limits as specified in Table N-1.

Where employees are exposed to noise at different levels, the daily noise dose may be determined by having an employee wear a sound dosimeter during an eight-hour workday with the microphone positioned at the employee's shirt collar. The percent of exposure will be converted to the equivalent dBA level to obtain the daily noise dose.
- B. Employees shall not be exposed to impact/impulse noise which exceeds the limits specified in the California Administrative Code §5096 (b)(1)(2)(3).

## IV. Monitoring

- A. Each job function which has an exposure exceeding a daily noise dose of 85.0 dBA or impact/impulse of 90.8 dBA will be documented. A representative employee of each job function can be monitored to meet this requirement.

- B. Affected employees and/or their bargaining unit representatives shall be provided the opportunity to observe any testing, sampling, or monitoring.
  - 1. They shall be notified of the date, time, and place of testing in advance.
  - 2. They shall be allowed access to records of such monitoring results.
  - 3. Employees exposed to a daily noise dose exceeding 1.0 shall be advised in writing of such exposure and the corrective action to be taken by the County.

V. Methods of Compliance

A. Engineering Controls

- 1. Whenever the operations reasonably permit, employee exposures to noise exceeding a daily noise dose (D) of 1.32 (LEXP of dBA) and exposures to impact/impulse exceeding the limits specified by the California Administrative Code §5096(b) shall be eliminated or at least reduced by engineering controls.
  - 2. Engineering controls will not be required if an employee's exposure to noise does not exceed 100 dBA and the exposure time above 90 dBA does not exceed eight (8) hours per week, provided the employees are properly protected by acceptable hearing protectors.
- B. Administrative Controls - Whenever the operations reasonably permit, administrative controls shall be implemented to avoid or reduce the use of hearing protectors. This can be accomplished by rotating employees to work areas with low noise exposure.
- C. Hearing protectors may be worn to reduce employee exposure to noise where engineering or administrative controls are not reasonably feasible.

VI. Hearing Protectors

- A. Each department shall publish a list of jobs that exceed 90 dBA or impact/impulse noises as described in the California Administrative Code §5096(b)(1)(2)(3) and require those employees to wear hearing protection.
- B. Each department shall establish a list of employees whose daily noise exposure exceeds 85 dBA when their audiogram shows a significant threshold shift, and those employees shall be required to wear hearing protectors.

- C. Hearing protectors used must have EPA and/or NIOSH noise reduction ratings (NRR) and provide adequate attenuation for the exposure.

To evaluate the effectiveness of hearing protectors, convert the employee's "A" weighted dosimeter percentage to the time weighted average (TWA), and subtract 7 dB from the NRR and subtract TWA - (NRR-7 dB) = Attenuation

- 1. Example: An employee's TWA is 95 dB, the hearing protector NRR is 28. Attenuation is as follows:

a)  $96 - (28 - 7) = \text{dB}$

- D. Ear plugs requiring fitting shall be issued only by personnel who have been qualified as an audiometric technician or who have obtained documented instruction from a physician.
- E. Hearing protectors which do not require fitting may be issued from the supervisor providing that employees have been instructed in their proper use.
- F. Employees shall be trained in the proper maintenance and sanitation of hearing protectors.

## VII. Audiometric Testing

- A. Employees exposed to a daily noise dose exceeding 85 dBA or to impact/impulse noise exceeding 90.0 shall be retested at least annually thereafter. Employees working less than 60 work days per year are not required to be tested.
- B. Audiometric tests shall be preceded by a period of at least 14 hours during which time there is no exposure to workplace sound levels in excess of 80 dBA. Hearing protectors may be worn to reduce noise levels below 80 dBA.
- C. Each employee's subsequent audiogram shall be examined to determine if any improved hearing level or significant threshold shift in either ear has occurred relative to the reference audiogram.
  - 1. If the average hearing level improves more than 5 dB for frequencies at 1000, 2000, or 4000 Hz for both ears, the new audiogram shall become the reference audiogram.
  - 2. If a significant threshold shift is present, a retest shall be made available to the employee within 30 work days. Significant shift is defined as follows:

- a. An average increased hearing level of 10 dB or more at frequencies of 2000, 3000, and 4000 Hz relative to the reference audiogram for either ear.
  - b. An increased hearing level of 30 dB at 6000 Hz relative to the reference audiogram for either ear.
3. If the shift persists in the retest, the test results shall be evaluated by an audiologist or a physician, and the employee shall be examined by a physician, if necessary, to determine the cause of the threshold shift.
- a. If the threshold shift appears to have a cause other than noise exposure, the employee shall be notified and referred to an appropriate source of medical care.
  - b. If the threshold shift is stated to be noise-induced:
    - (1) Employees who have not used hearing protectors previously shall not be required to wear hearing protectors when exposed to 85 dB or more.
    - (2) Employees who have already been issued hearing protectors shall be retrained and reinstructed in the use of hearing protectors.
    - (3) The employee shall be notified (within 21 days) in writing of the shift in hearing level, and this hearing level becomes the new reference audiogram.
    - (4) This then becomes a recordable accident. Appropriate entry on OSHA 200 log is required.
- D. Audiometric testing shall be administered by a certified audiometric technician or a reputable health service contractor. The contractor shall comply with any state or federal regulations as pertains to methods of testing and calibration of equipment.

#### VIII. Record Keeping

- A. All records pertaining to noise monitoring, dosimeter tests, audiometric testing, and doctor's reports shall be retained as outlined in the California Administrative Code, Title 8.
- B. Such records shall be made available to employees or their designated representatives.

#### IX. Posting of Signs

- A. Signs which are clearly legible at a distance of 20 feet shall be posted at entrances to, or on the periphery of, areas which employees may be exposed to noise levels in excess of the limits prescribed in Paragraph 1303 of this procedure.

B. Wording of signs shall be as follows:

1. 90 to 94 dBA level:

CAUTION  
Hearing protection required for employees working  
30 minutes or more in this area

2. 95 dBA or higher

CAUTION  
Hearing protection required for employees working  
15 minutes or more in this area