

## **C-23 HEARING CONSERVATION PROGRAM**



Inception Date: 11/13/2018  
Last Revision Date: NEW  
By: Human Resources  
Page: 1 of 7

### **23.1.0 PURPOSE**

23.1.1 The County is committed to providing a safe and healthy work environment and to fostering the well-being and health of its employees. This commitment extends to the establishment of a continuing, effective Hearing Conservation Program that addresses the minimum requirements that must be followed to protect employees from noise exposure levels that exceed the Cal/OSHA Action Level in compliance with Title 8 (T8) of the California Code of Regulations (CCR), Section 5097, California State (State) Hearing Conservation Program.

### **23.2.0 POLICY**

23.2.1 This program incorporates Cal/OSHA requirements referred to in T8, CCR, Section 5097, State Hearing Conservation Program, including the use of noise area monitoring, audiometric testing, and the appropriate use of hearing protection devices by employees in positions listed in the *Hearing Conservation Employee Exposure Determination*, Attachment A.

23.2.2 Each Department with positions listed in the *Hearing Conservation Employee Exposure Determination*, Attachment A, shall submit a completed *Department Hearing Conservation Plan*, Attachment B, to the Risk Management Division of Human Resources, and ensure compliance with the requirements outlined in this program.

### **23.3.0 DEFINITIONS**

- A. "Action Level" means an 8-hour time-weighted average of 85 decibels measured on the A-scale, slow response, or equivalently, a dose of 50%.
- B. "Area Noise Monitoring" means a noise survey conducted to determine noise exposure in areas likely to be hazardous.
- C. "Audiogram" or "Hearing Test" means a chart, graph, or table resulting from an audiometric test showing an individual's hearing threshold levels as a function of frequency.
- D. "Audiologist" means a professional, specializing in the study and rehabilitation of hearing, who is certified by the American Speech, Hearing and Language Association or licensed by a state board of examiners.
- E. "Baseline audiogram" is a reference audiogram against which future audiograms are compared.
- F. "Decibel (dB)" means a unit of measurement of sound level.

**C-23 HEARING CONSERVATION  
PROGRAM**



Inception Date: 11/13/2018  
Last Revision Date: NEW  
By: Human Resources  
Page: 2 of 7

- G. "dBA" (Decibels-A-Weighted) means a unit of measurement of sound level corrected to the A-weighted scale, as defined in ANSI S1.4-1971 (R1976), using a reference level of 20 micropascals (0.00002 Newton per square meter).
- H. "Department Hearing Conservation Plan Administrator" means the Department representative selected to administer the Department Hearing Conservation Plan.
- I. "Dose" 100% dose indicates the allowable exposure to accumulated noise. Per Cal/OSHA regulations, a dose of 50% or more (when using an 80dB threshold) requires implementation of a County Hearing Conservation Program. A dose of 100% or more (when using a 90dB threshold) requires the use of feasible engineering and administrative controls to reduce the sound levels. If controls do not adequately reduce sound levels, then appropriate hearing protection must be worn.
- J. "Engineering Controls" mean reducing and/or eliminating occupational hazards, or by placing a barrier between the worker and the hazard.
- K. "Evaluation of an audiogram" is an evaluation of an employee's annual audiogram against the employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift exists.
- L. "Hearing Conservation Program" is a written program required by Cal/OSHA "whenever employee noise exposures equal or exceed an 8-hour time-weighted average sound level (TWA) of 85 decibels measured on the A scale (slow response) or, equivalently, a dose of 50%."
- M. "Hearing Protection Device" means equipment used to protect the ear, either externally from elements such as cold, intrusion by water and other environmental conditions, or specifically from noise. Hearing amplification devices such as hearing aids are excluded from this definition.
- N. "High Noise Areas" means an identified work area in which average noise levels exceed the action level.
- O. "Impulse Noise" or "Impact Noise" means a noise that is created by the impact of one surface on another and is of a short duration. Impulsive noise is typically a noise that has a short duration, such as the shooting of a firearm or the explosion of a firework.
- P. "Noise Exposure Data" refers to data contained in area noise monitoring records.
- Q. "Sound Level" means ten (10) times the common logarithm of the ratio of the square of the measured A-weighted sound pressure to the square of the standard reference pressure of 20 micropascals. Unit: decibels (dB).

## C-23 HEARING CONSERVATION PROGRAM



Inception Date: 11/13/2018  
Last Revision Date: NEW  
By: Human Resources  
Page: 3 of 7

- R. "Standard Threshold Shift" means a change in hearing threshold, relative to the baseline audiogram for that employee, of an average of 10 decibels (dB) or more at 2000, 3000, and 4000 Hertz (Hz) in one or both ears.
- S. "Time Weighted Average" means the average exposure to a hazardous substance over an 8-hour day and 40-hour work week that cannot be exceeded without adverse health effects.

### 23.4.0 GENERAL REQUIREMENTS

- A. A Department must implement a *Department Hearing Conservation Plan*, Attachment B, when employees in their Departments are exposed to the following:
  - 1. High noise areas and workplace tasks identified to exceed an 8-hour time-weighted average (TWA) noise level of 85 dBA or above, or equivalently a dose of 50%.
  - 2. Impulse noise of 140 dBA or greater.
- B. Employees enrolled in the Hearing Conservation Program shall be required to complete initial and annual hearing conservation training and hearing exams.
- C. Employees who do not meet the criteria outlined in Section 1.4.0 (A) shall not be enrolled in the Hearing Conservation Program.
- D. Departments with classifications listed in the *Hearing Conservation Employee Exposure Determination*, Attachment A, are subject to the Hearing Conservation Program.

#### 23.4.1 Noise Abatement

- A. Whenever possible, the County shall help prevent occupational injury related to noise exposure by conducting engineering control technology evaluations and developing practical, solutions-oriented control technology interventions as suggested by the National Institute for Occupational Safety and Health (NIOSH).
- B. Whenever the use of effective engineering controls cannot feasibly reduce noise levels below 85 dBA, or while engineering controls are being instituted, appropriate hearing protection devices shall be used.

#### 23.4.2 Responsibilities

- A. Employees who are deemed to be covered by this program shall:

**C-23 HEARING CONSERVATION  
PROGRAM**



Inception Date: 11/13/2018  
Last Revision Date: NEW  
By: Human Resources  
Page: 4 of 7

1. Properly wear issued hearing protection devices in posted high noise areas and during tasks identified to exceed the action level.
2. Maintain issued hearing protection devices provided to them according to manufacturer's recommendations.
3. Inform his/her supervisor of any changes in workplace conditions that may require a change in the type or use of hearing protection devices.
4. Participate in the County's scheduled annual hearing exams.
5. Complete the County's online or classroom-based hearing conservation training annually, per T8, CCR, Section 5099, State Hearing Conservation Program, Training Program.

**B. Department designee shall:**

1. Act as the Department Hearing Conservation Plan Administrator.
2. Be responsible for scheduling of area noise monitoring as well as annual hearing exams and training.
3. Assist Risk Management in referring employees to a hearing specialist or professional based on hearing exam results, in accordance with T8, CCR, Section 5097, State Hearing Conservation Program.
4. Maintain documentation of area noise monitoring, training, and hearing exam records in a secure area to protect confidentiality.
5. Post signage requiring the use of hearing protection devices in high noise areas.
6. Make copies of Article 105 (<http://www.dir.ca.gov/title8/sb7g15a105.html>) to be available to employees enrolled in the Hearing Conservation Program or their representatives, and post a copy in the workplace per T8, CCR, Section 5099, State Hearing Conservation Program, Training Program.
7. Provide an updated listing of individuals that are enrolled in the Hearing Conservation Program to the Human Resources Risk Management Division by July 1 of each year.

**C. Supervisors of employees in classifications deemed to be covered by this program shall:**

1. Consult with Risk Management for advisory and assistance services whenever new high noise areas and tasks are identified.

**C-23 HEARING CONSERVATION  
PROGRAM**



Inception Date: 11/13/2018  
Last Revision Date: NEW  
By: Human Resources  
Page: 5 of 7

2. Ensure that employees exposed to action levels adhere to the elements of a Hearing Conservation Program, including annual hearing exams and hearing conservation training.
  3. Identify employees who may need hearing protection based on workplace exposure hazards, in accordance with T8, CCR, Section 5097, State Hearing Conservation Program.
  4. Provide hearing protection devices at no cost to employees and ensure that employees wear such appropriate hearing protection devices when performing tasks with high noise exposure.
  5. Enforce the requirements of the Hearing Conservation Program within the Department and administer coaching and/or discipline to employees who fail to maintain safe work practices.
- D. Risk Management Division shall:
1. Assist the Department Hearing Conservation Plan Administrator with hearing exam or noise monitoring scheduling upon request.
  2. Provide advice and consultation to Departments upon request.
  3. Assist the Department in the selection of appropriate hearing protection devices.
  4. Provide training pertaining to the County's Hearing Conservation Program to participating Department designees.

**23.5.0 PROCEDURES**

**23.5.1 Noise Monitoring**

- A. Area noise monitoring shall be conducted to identify employees for inclusion in the Hearing Conservation Program and to identify Department locations where average noise levels exceed the action level. Monitoring shall follow methodologies developed by the National Institute for Occupational Safety and Health (NIOSH) and Cal/OSHA.
- B. Area noise monitoring will be repeated whenever there is a change in equipment or processes that may reasonably be expected to increase noise exposure to levels near or beyond the action level.
- C. The Department, in conjunction with Risk Management, shall identify potential high noise areas.

## **C-23 HEARING CONSERVATION PROGRAM**



Inception Date: 11/13/2018  
Last Revision Date: NEW  
By: Human Resources  
Page: 6 of 7

### **23.5.2 Hearing Testing**

- A. Employees enrolled in the Hearing Conservation Program shall undergo initial and annual hearing exams. Initial baseline hearing testing may be conducted during the pre-appointment medical evaluation or within 6 months of an employee's first exposure at or above the action level.
- B. Follow-up hearing exams shall be conducted within 30 days of an audiogram that shows a standard threshold shift relative to the original baseline audiogram.
- C. Further evaluation by an audiologist or otolaryngologist, an occupational health physician, or a technician accredited by the Council of Accreditation in Occupational Hearing Conservation (CAOHC) may be required before a standard threshold shift is confirmed.
- D. Employees shall be notified within 21 days of a determination of a standard threshold shift in accordance with T8, CCR, Section 5097, State Hearing Conservation Program.
- E. Unless a physician determines that a standard threshold shift is not work related or aggravated by noise exposure, the employee shall be refitted and retrained in the use of an appropriate hearing protection device.

### **23.5.3 Safety Signs and Labels**

- A. High noise areas where average noise levels exceed the action level shall be clearly identified by signs located at their entrances or boundaries.
- B. Equipment producing average noise levels that exceed 85 dBA shall be clearly marked to alert personnel, unless the equipment is stationary and within an identified high noise area.

### **23.5.4 Personal Protective Equipment (PPE)**

- A. Hearing protection devices shall be provided free of cost to employees who are enrolled in the Hearing Conservation Program. Employees must wear appropriate hearing protection devices while exposed to noise at or above the action level. Employees who fail to wear appropriate hearing protection devices when required to do so may be subject to coaching and/or discipline.
- B. Each Department with classifications subject to this program is responsible to identify activities that require the use of hearing protection devices.

## **C-23 HEARING CONSERVATION PROGRAM**



Inception Date: 11/13/2018  
Last Revision Date: NEW  
By: Human Resources  
Page: 7 of 7

### 23.5.5 Training

- A. Employees enrolled in the Hearing Conservation Program must complete annual training per T8, CCR, Section 5099, State Hearing Conservation Program, that includes the following:
  - 1. Effects of Noise on Hearing
  - 2. Purpose of hearing protection devices
  - 3. Advantages and disadvantages of hearing protection devices
  - 4. Attenuation of various hearing protection devices
  - 5. Purpose of Audiometric testing
  - 6. Explanation of test procedures

### 23.5.6 Recordkeeping

- A. Departments shall make the Hearing Conservation Program and the Department *Hearing Conservation Plan*, Attachment B, available to employees upon request.
- B. Audiometric data shall be retained by each Department for the duration of the affected employee's employment, per T8, CCR, Section 5100, State Hearing Conservation Program, Recordkeeping.
- C. Noise exposure data shall be retained for a minimum of two (2) years per T8, CCR, Section 5100, State Hearing Conservation Program, Recordkeeping.

### 23.6.0 AMENDMENTS

- 23.6.1 The Director of Human Resources, with concurrence of the County Administrator and County Counsel, is authorized to make periodic administrative amendments to this program as deemed appropriate.