

2018

NOISE & HEARING CONSERVATION

Pottawattamie County

Safety & Health Program

Section B 8

It is the policy of Pottawattamie County to provide a safe and healthful workplace for employees. It is the intent of this policy to comply with OSHA requirements listed in 29 CFR 1910.95; all local, state, and federal laws.



Important Contact Information

Garfield Coleman, Risk Manager:

Work: 712-328-4784 Cell: 402-595-8575

“Company Nurse”:

888-770-0928

CHI Occupational Health Services/Mercy Hospital

712-328-5550

Approved by the Board of Supervisors

October 30, 2018



NOISE & HEARING CONSERVATION PROGRAM

TABLE OF CONTENTS

I.	Objective.....	3
II.	Scope & Accountability.....	3
III.	Authority & Responsibility.....	3
	A. Risk Management.....	3
	B. Department & Supervisors.....	4
	C. Employees.....	4
IV.	Procedure.....	4
	A. Noise Surveys & Exposure Monitoring.....	5
	B. Engineering & Administrative Controls (Noise Control Measures).....	6
	C. Hearing Protectors.....	6
V.	Audiometric (Hearing) Exams.....	7
VI.	Training & Recordkeeping.....	7
VII.	Definitions.....	8

MODEL FORMS

Program Audit Form

I. Objective

The purpose of the Hearing Conservation Program is to protect employees from occupational noise exposures which could lead to noise-induced hearing loss. This program is intended to comply with OSHA's Noise Exposure Standard (29 CFR 1910.95).

II. Scope and Applicability

This program covers any employee who, in the course of his/duties, may perform work or use equipment that produces sound levels sufficient to cause hearing damage, as defined by OSHA, or who may enter or perform work in areas where such hazardous sound levels are or may be present.

The Hearing Conservation Program establishes requirements for all employees who are expected to be exposed to noise levels equal to or greater than an 8 hour time weighted average (TWA) of 85 decibels.

III. Authority & Responsibility

A. Risk Management is responsible for:

1. Developing, implementing, and administering the County's Hearing Conservation Program.
2. Identifying work areas and equipment within the County's facilities where noise levels equal or exceed 85 dBA.
3. Conduct and/or supervise noise surveys and exposure monitoring.
4. Provide annual training for employees including in the Hearing Conservation Program.
5. Notifying all employees exposed at or above an 8 hour time weighted average (TWA) of 85 decibels (dB) of the monitoring results.
6. Evaluating hearing protector attenuation for the specific noise environments in which the hearing protection devices are used.
7. Ensuring proper initial fitting of hearing protection devices when requested.
8. Arranging annual audiometric testing, notifying employees of the results and ensuring that testing records are maintained.
9. Conduct periodic audits of the Hearing Conservation Program.
10. Maintaining all exposure measurement records.

B. Departments and Supervisors are responsible for:

1. Ensuring that all employees exposed to noise levels equal to or greater than 85 dBA, have access to appropriate hearing protection devices in the work area.
2. Identifying potentially hazardous noise locations and operations and contacting Risk Management to request a noise evaluation. This includes reporting all potential noise hazard areas, employee complaints regarding noise, and noisy conditions that make normal conversation difficult.
3. Conduct noise surveys under the supervision of Risk Management.
4. Notifying the Risk Management, within 6 months of employment, of any new employee who is to be included in the Hearing Conservation Program.
5. Enforcing the use of hearing protection devices and maintaining engineering and administrative controls in designated noise hazard areas.
6. Scheduling audiograms and training with Risk Management on an annual basis for employees who are included in the Hearing Conservation Program.
7. The cost of the Hearing Conservation Program, including audiograms and hearing protection devices.
8. Notifying Risk Management whenever a change in process, production, equipment, or controls may increase noise exposure.

C. Employees are responsible for:

1. Using hearing protection as required.
2. Participating in annual audiograms, if required.
3. Participating in annual training, if required.
4. Inspecting and maintaining hearing protection devices.
2. Seeking replacement or repair of hearing protection devices when necessary.
3. Assisting the Department in identifying locations or operations to which they may be exposed to loud noise.

IV. Procedure

Pottawattamie County requires the use of hearing protectors in any location where powered or motorized equipment or any other noise source could reasonably be expected to exceed 85 dBA. Use of hearing protectors may only be discontinued when noise levels are verified to be less than 85 dBA through a properly conducted noise survey.

A. Noise Surveys and Exposure Monitoring

**Pottawattamie County - NOISE AND HEARING CONSERVATION
Safety & Health Program Section B 8**

1. Employee and/or work area monitoring shall be performed when exposure is suspect of being at or above an 8-hour TWA of 85 dB
2. Risk Management will identify work areas within county facilities where noise levels equal or exceed 85 dBA. Signs will be posted at the entrance to any work area where noise levels routinely exceed 85 dBA. Departments that suspect they have an undiagnosed noise issue in a work area shall contact Risk Management to schedule a noise evaluation.
3. Employees who work in these areas shall have hearing protection devices supplied to them, shall be instructed in its proper use, and shall be required to wearing hearing protection when in these identified areas or around equipment that produces excessive noise while in the areas. It is the responsibility of the area supervisor and the exposed employee to ensure that these requirements are maintained.
4. Factors which suggest that noise exposures in the work area may be at or above 85 dB include but are not limited to; employee complaints about the loudness of noise, indications that employees are having difficulty hearing in the area, or noisy conditions which make normal conversation difficult.
5. All continuous, intermittent, and impulsive impact sound levels from 80 dB to 130 dB shall be incorporated into the noise measurement survey.
6. Noise surveys must be conducted in a manner that reasonably reflects the exposure of the affected employees. Surveys will be conducted under the supervision of Risk Management. Noise monitoring is to be done whenever new equipment or processes are introduced to the work area. Affected employees or their representatives shall be provided an opportunity to observe any noise measurements.
7. Sound level meters and audio dosimeters used to determine employee exposure to noise sources must be Type II (accurate to within +/- 2dB), operated in "slow" response, on the "A" scale, and be calibrated to factory guidelines (including periodic factory re-calibration). Noise samples must be taken with adequate duration to be representative of employee's' exposures.
8. Employees may request a noise survey by contacting their supervisor.

B. Engineering and Administrative Controls (Noise Control Measures)

**Pottawattamie County - NOISE AND HEARING CONSERVATION
Safety & Health Program Section B 8**

Pottawattamie County will eliminate noise sources to the extent possible through engineering or administrative controls. During the implementation of these controls, affected employees shall be provided with hearing protection devices and trained in accordance with this program. Examples of controls that must be considered include but are not limited to:

1. Rotation of people to lower exposed positions.
2. Addition or replacement of mufflers on motorized equipment.
3. Addition of mufflers to air exhausts on pneumatic equipment.
4. Following equipment maintenance procedures to lubricate dry bearings.
5. Isolation of loud equipment such as machinery, compressors and generators from employee work areas.
6. Replacement of older noisy equipment with newer and quieter models.

C. Hearing Protectors

1. Hearing protection devices shall be the permanent solution only when engineering or administrative controls are not effective or not cost effective.
2. Hearing protectors shall be made available to employees exposed to an 8-hour TWA of 85 dB or greater. Department shall ensure that at least three (3) types of hearing protectors are available to employees, preferably a plug and muff type. Employees are required to properly use and wear hearing protection in designated areas to effectively protect hearing.
3. Hearing protectors provided shall meet the "Minimum Noise Reduction Ratings" (NRR). Hearing protectors issued to or used by employees must have the following minimum NRR:
 - Ear plugs: 29dB
 - Muffs: 27dB
4. Attenuation refers to the decrease of noise levels as a result of wearing hearing protection devices. The hearing protection device attenuation shall be evaluated by Risk Management when requested for specific noise environments in which the hearing protection device will be used.
5. Hearing protection attenuation will be calculated using the OSHA Hearing Conservation procedures.
[Actual NRR = [Rated NRR- 7 dBA / 2] = _____ dBA]

V. Audiometric (Hearing) Exams

- A. Employees are required to have an audiometric baseline test within 6 months of being assigned to a high noise area. Employees shall wear hearing protection devices any time they are going to be exposed to workplace noise at or above the action level until a baseline audiogram is obtained.
- B. Employees who are required to be in the Hearing Conservation Program shall be tested annually after obtaining the baseline audiogram. The annual audiogram will be compared to the baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred. If the annual audiogram shows that an employee has suffered a standard threshold shift, the employee may obtain a retest within 30 days and the retest results may be considered the annual audiogram. If a comparison of the annual audiogram retest to the baseline confirms a standard threshold shift, the employee shall be informed of this in writing.

VI. Training & Recordkeeping

A. Training:

Employees who are required to be in the Hearing Conservation Program will receive training to include:

1. The effects of noise on hearing.
2. The purpose of hearing protectors.
3. The advantages and disadvantages of various types of hearing protectors.
4. The attenuation of various types of hearing protection.
5. The selection, fitting, care and use of hearing protectors.
6. The purpose of audiometric testing.
7. An explanation of the audiometric testing procedure.

B. Documentation Summary

Non-Medical Hearing Conservation Program records shall be filed with the Risk Manager in the safety program filing system as a permanent record. Records include but are not limited to:

- Types of hearing protectors and associated NRRs
- Noise surveys, when applicable
- Training records
- Audit reports and corrective action completion

All employees who routinely work in designated hazardous noise areas shall be identified and a current roster of such employees shall be maintained by department management.

Audiometric Tests Records: Records of employee audiometric tests shall be retained for the duration of the affected employee's employment. These records will be made part of the employee's medical file.

VII. Definitions

Action Level: An 8 hour time weighted average (TWA) of 85 decibels (dB), that requires the implementation of a Hearing Conservation Program in accordance with the OSHA Occupational Noise Exposure Standard.

Administrative Controls: Efforts to change a work schedule or operations to reduce an employee's noise exposure by reducing time spent in the noisy environment.

Audiogram: A record of a person's ability to hear at several different frequencies.

Audiometric Testing: Measurement of a person's ability to hear at several different frequencies, usually 500 to 6,000 Hz.

Baseline Audiogram: An initial valid audiogram against which subsequent audiograms are compared to determine if hearing thresholds have changed.

Continuous Noise: Noise of a constant level as measured over at least three seconds using the "slow" setting on a sound level meter.

Decibel (db): The unit used to measure sound pressure levels; a logarithmic scale ranging from 0 dB (threshold of hearing) through 40 dB (threshold for pain).

Decibel A-weighted (dBA): A sound level reading in decibels made on the A-weighted scale of a sound level meter.

**Pottawattamie County - NOISE AND HEARING CONSERVATION
Safety & Health Program Section B 8**

Engineering Controls: Use of engineering methods to reduce or control a noise source usually by modifying or replacing equipment.

Noise Dosimeter: An instrument worn by employees for a specified period of time, which measures the employee's noise exposure during that time.

Noise-Induced Hearing Loss: A hearing loss that is attributed to noise exposure only.

Standard Threshold Shift: Relative to a baseline audiogram, a change in the hearing threshold of 10 dB or more at 2000, 3000, and 4000 Hz.

MODEL FORMS

Model forms for this program are located on the following pages.
Departments may modify or develop their own forms based on
the specific needs of their department.

Modified forms are subject to
review and approval of Risk Management