

**Michigan Municipal Workers' Compensation Fund
Safety and Health Resource Manual**

**Sample Hearing Conservation Program
Policies and Procedures**

PURPOSE

The purpose of this program is to protect personnel from possible noise-induced hearing impairment by establishing a comprehensive Hearing Conservation Program, and to comply with MIOSHA requirements.

POLICY

[Name of Municipality] will take the actions outlined in this policy to assure that employees work in an environment that will not adversely affect their hearing.

BACKGROUND

- A. [Name of Municipality] will consider noise control devices when purchasing equipment, so that new equipment that will operate at less than 80 dbA.
- B. When maintaining or repairing existing equipment, [Name of Municipality] will determine if engineering solutions can reduce excessive noise levels prior to implementing mandatory hearing protection.

RESPONSIBILITY AND PROCEDURE

A. Health, Safety and Training

- 1. Will conduct noise surveys to identify employees whose noise exposure may equal or exceed an 8-hour time weighted average (TWA) of 85 dbA.
- 2. Will determine and provide plug and muff type hearing protectors that will provide acceptable attenuation characteristics for the environment to which the employee is subject.
- 3. Will perform monitoring whenever a change in production, process equipment or controls increases noise exposure to the extent that additional employees may be exposed at or above the action level of 85 dbA.
 - a. Employees will receive written notification when personal dosimeter monitoring is conducted.
- 4. Will determine areas in which noise levels are at a TWA of 85 dbA or greater, and assist departments in posting the periphery of the defined areas with warning signs.
- 5. Establish a training program and conduct annually for all employees identified by paragraph #1 of this guideline. Training program shall include:
 - a. The effects of noise on hearing.
 - b. Purpose of hearing protection devices offered, advantages, disadvantages, and attenuation characteristics.
 - c. Proper use and maintenance of hearing protectors.
 - d. Purpose of audiometric testing and explanation of test procedures.

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6. Will notify the Program Administrator of all individuals whom the annual audiometric testing program will include.

B. Health Center

1. Will schedule and conduct audiograms for all employees identified by paragraph A.1. Tests will take place annually thereafter.
2. Maintain records of all audiometric test results for employees.
3. Calibrate audiometric booths and instruments according to ANSI 53.6-1969. Maintain all calibration records.
4. Notify employees in writing within 21 days when a standard threshold shift is determined. These employees will be retested in six months.
5. Notify employees in writing of annual audiometric test results in comparison to their baseline audiogram.
6. Log on Form 200 any threshold shift greater than 10 db according to protocols.

C. Department Manager

1. Assists safety staff to reduce noise levels to lowest level possible.
2. Assure compliance with this guideline in all affected areas within department.
3. Cooperate in freeing employees to come to Program Administrator for testing.

D. Supervisors and Managers

1. Will adhere to testing schedules prepared by medical.
2. Will enforce the use of personal protective equipment (hearing protection).

E. Employee

1. Will wear hearing protection if they are working in areas with noise levels at a TWA of 85 dbA or greater.

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Health, Safety and Training
Audiometric Testing Procedures

PURPOSE

- A. To prevent and control hearing impairment in the workplace, and
- B. To meet the requirements of the Michigan Occupational Safety and Health Act (MIOSHA).

CERTIFICATION

- A. Occupational Hearing Conservationists (OHC)
- B. Responsibilities of Health Center Staff
 - 1. Calibrations of audiometric equipment.
 - 2. Recording the calibrations.
 - 3. Recording the diagrams.
 - 4. Employee education program.
 - 5. Correct techniques in obtaining audiometric testing.
 - 6. Referrals to audiologists and physicians as indicated.

REQUIREMENTS

Occupational Hearing Conservation begins when measurements are 85 dbA over 8-hours.

A. Calibrations

- 1. Biological calibrations of audiometric machine on individuals with known threshold daily.
- 2. Acoustic (annual) calibrations.
- 3. Exhaustive calibrations to be done by (Name of testing facility). Certifications of equipment shall be posted in Health Center.

B. Audiometric Testing

- 1. Baseline testing at beginning of employment.
- 2. Pre-placement situations demand testing.
- 3. Monitoring on yearly basis.
- 4. Exit audiometric testing on individuals leaving or retiring.

C. Referrals

To audiologist or physician:

- 1. When STS of 10 decibels or more is averaged at 2,000, 3,000 and 4,000 Hz in both or either ear.
- 2. Significant hearing loss at 500, 1,000, 2,000 or 3,000 Hz is noted.
- 3. Pain or drainage noted from either ear.

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D. Techniques

1. Hughson-Westlake ascending technique for threshold determination at 1,000, 2,000, 3,000, 4,000, 6,000, 8,000 (reliability test) and 500 Hz in that order for both ears. Reliability test need only be done for the first ear at 1,000 Hz.
2. O-right ear in red ink. X-left ear in black ink.
3. Employees must be free of loud noise for 14 hours before test and instructed so.

E. Personal Hearing Protection Devices

1. Use is mandatory when working in 85 dbA or higher for 8 hours.
2. Program to educate employee in the need for hearing protection is mandatory.

F. Abbreviations

CAOHC	Council for Accreditation of Occupational Hearing Conservation
EEP	Employee Education Program
db	Decibels—Intensity of Sound
HZ	Hertz—Frequency of Sound
NRR	Noise Reduction Rating
OHC	Occupational Hearing Conservationist (Certification required)
OHL	Occupational Hearing Loss
PHPD	Personal Hearing Protection Devices
STS	Standard Threshold Shift

G. Daily Calibration

1. Check fuse and power cord.
2. Check all switches and dials.
3. Turn dial to 40 db and with headset on, sweep through all frequencies in each ear.
4. Check at one frequency in each ear for any intermittent noise by wiggling cords.

H. Patient Instructions

1. Ask patient if he or she has a "better ear".
2. Have individual remove glasses, earrings and/or hearing aid.
3. Have patient face away from tester.
4. Instruct patient to push button when he or she hears sound.
5. Tell patient that some sounds will be softer.
6. Use thumbs to place earphones over each ear with diaphragm over the ear canal. Tighten headband as indicated.

PROCEDURE FOR USE OF MICROPROCESSOR AUDIOMETRIC TESTING MACHINE

A. Operating Instructions

1. Turn power switch on.
2. Enter date by keyboard.
3. Push **I** to enter date and place operation number in.
4. Push **I** to enter data.
5. Select constant or pulsing tone stimulation.
6. Select automatic screening button.
7. After the wanted recordings have been completed, activate push button **I**.

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8. Enter patient's I.D. number. Activate button that indicates the final remark sign, which has to be filled out with the operator's signature.
9. At any program step, where the printer asks a question, the program can be continued without entering information by activating the push button.

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Employee Notification of Noise Level

EMPLOYEE NAME: _____

DEPARTMENT: _____ UNIT: _____

SOCIAL SECURITY #: _____ DATE OF NOISE MONITORING: _____

As part of our ongoing efforts to ensure that our employees work in an environment which is as safe and hazard-free as possible, [Name of Municipality] recently monitored you (your area) for occupational exposure to noise.

Results obtained from this monitoring indicate your exposure level to be _____ db, measured as an 8-hour TWA.

The results of this monitoring indicate your exposure to be at, or above the "action level", (85 dbA) which triggers a program of hearing conservation.

Therefore, [Name of Municipality] policy requires your participation in a program of hearing conservation that includes the following:

1. You will be scheduled for an audiometric test (a test which measures your ability to hear).
2. You will be provided with a choice of hearing protectors from which you may select. You will be required to wear them while performing your job.
3. You will be required to participate in a hearing conservation training program.

You will be contacted by your Department Safety and Health Coordinator concerning these points.

If you have any questions concerning any of the above, [Name of Municipality] is available to discuss them with you at a mutually convenient time.

[Name of Municipality] looks forward to your continued cooperation in this important area of employee safety and health.

As evidenced by my signature below, I acknowledge receipt of this test data.

Employee Signature

Date

Social Security #

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Audiological Examination

NAME: _____ DATE: _____ TIME: _____ AM PM
DEPARTMENT: _____ UNIT: _____ SHIFT: _____
SOCIAL SECURITY #: _____ AGE: _____ BASELINE: _____
FOLLOW-UP: _____

AUDIOGRAM (Check one box for each question.)

- | | <u>YES</u> | <u>NO</u> |
|---|--------------------------|--------------------------|
| 1. Do you wear hearing protection while at work? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Do you have frequent headaches? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Have you had a cold in the last 2 or 3 weeks? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Have you had an ear infection in the last 2 or 3 weeks? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Have you ever had any sharp pain in the ears? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Have you had a hearing loss? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Do you have a ringing in the ears? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Any hobbies with loud noises involved (e.g., hunting, shooting, etc.)? | <input type="checkbox"/> | <input type="checkbox"/> |
- If "YES", please specify: _____

	<u>RIGHT</u>	<u>LEFT</u>
2,000	_____	_____
3,000	_____	_____
4,000	_____	_____

DOCTOR REVIEWING: _____

COMMENTS: _____

DATE OF CALIBRATION: _____

The following is discussed with the employee:

- | | <u>YES</u> | <u>NO</u> |
|--|--------------------------------|--------------------------------|
| 1. Adverse effects of noise? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Demonstration of ear protectors? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Care of ear protectors? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Ear protectors recommended? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Type of hearing protection recommended: | <input type="checkbox"/> PLUGS | <input type="checkbox"/> MUFFS |

EXAMINER'S SIGNATURE: _____

DATE: _____

Employee Notification of Audiometric Test Results

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EMPLOYEE NAME: _____

DEPARTMENT: _____ UNIT: _____

SOCIAL SECURITY #: _____ DATE OF AUDIOGRAM: _____

As part of [Name of Municipality]'s ongoing hearing conservation program, you were recently given an audiometric test. This test measures your ability to hear and detects any changes in your hearing ability.

Check Applicable Boxes

- In comparison with your baseline at time of hire your audiogram is normal.
 - Your current exam shows a standard threshold shift from the basal exam. You are required to wear hearing protection whenever you are exposed to noise on and off the job. You have been trained in the types of protection and instructed in their use.
 - Baseline will remain the same.
 - Repeat audiogram will become the revised baseline.
 - Repeat audiogram is required within 30 days.
-

As evidenced by my signature below, I acknowledge receipt of this test result.

Employee Signature

Date

Social Security #