Management Plan
for
Hearing Conservation

ISD #535
Health & Safety Office
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507-328-4507
## Document Modification Form

All document modifications must be recorded on this form.

<table>
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<th>Modification Date</th>
<th>Modification Description</th>
<th>Modifications By</th>
<th>Purpose of Modification</th>
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<td>Annual Review</td>
<td>Michael Stock</td>
<td>Update</td>
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<td>Changed Office Phone Number</td>
<td>Michael Stock</td>
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PROGRAM COMPONENTS

1.1 Purpose of Program

The purpose of this hearing conservation program is to prevent occupational hearing loss and comply with the OSHA standard 29 CFR 1910.95- Occupational Noise Exposure Hearing Conservation Amendment.

1.2 Authority and Reference

Occupational Safety and Health Administration (OSHA) 29 CFR 1910.95

1.3 Application

The Occupational Safety and Health Administration (OSHA) Occupational Noise Exposure Standard 29 CFR 1910.95 establishes a permissible exposure limit (PEL) for occupational noise exposure, and requirements for audiometric testing, hearing protection, and employee training if those sound levels are exceeded. This regulation defines an “action level” (AL) as a “dose” of 50%, which is equivalent to an eight-hour time weighted average of 85 dBA. When these noise levels exceed this amount, an effective hearing conservation program is required, which includes as a minimum:

<table>
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<th>Requirement</th>
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<tr>
<td>1. Noise Monitoring</td>
<td>29 CFR 1910.95(d)(e)(f)</td>
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<td>2. Audiometric Testing</td>
<td>29 CFR 1910.95(g)(h)</td>
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<td>29 CFR 1910.95(i)(j)</td>
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<td>4. Education and Training</td>
<td>29 CFR 1910.95(k)(l)</td>
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<td>5. Recordkeeping</td>
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1.4 Background

Occupational noise exposure can cause irreversible hearing loss, and increase an individual’s susceptibility to other workplace problems including physical and psychological disorders. These disorders can ultimately result in interference with speech and communication, a disruption of job performance and personal problems with loved ones at home. Exposure to these high noise intensities produces hearing loss of a neutral type involving injury to the inner ear hair cells called cilia. When noise intensities enter the inner hear these tiny hair cells flatten then raise, sending messages to the brain about the sound. If repeated exposure to these high intensities of sound continues, these hairs will ultimately flatten, causing permanent hearing loss for that individual.

Permanent hearing loss is preventable with the continued use of proper hearing protection and reduction of workplace noise levels below 85 decibels. This will benefit not only employees who can listen and communicate well throughout their lifetimes, but also helps the employer in terms of reduced exposure to hearing loss compensation claims and a potential for increased general safety and job performance.

Because hearing loss can be permanent and in many cases preventable, Rochester Public Schools is concerned about the potential hearing health risks associated with school district activities. Those employees exposed to a high level of noise intensities shall meet the requirements of OSHA’s standard 29 CFR 1910.95. Rochester Public Schools has developed this program in order to clearly establish and communicate the policies and procedures regarding hearing conservation. The district contact person for the Hearing Conservation Program is Michael Stock, Coordinator of Health & Safety. He can be reached at (507) 328-4507.
1.5 Definitions:

Action Level—An 8-hour time-weighted average noise level of 85dBA

Audiogram—A chart, graph or table, or audiometric test results showing an individual’s hearing threshold levels at selected frequencies.

Audiologist—A professional specializing in the study of rehabilitation of hearing, who is certified by the American Speech-Language-Hearing Association or licensed by a State Board of Examiners.

Baseline Audiogram—The audiogram against which future audiograms are compared.

Criterion Sound Level—90dB

dB (Decibel) —A logarithmic expression of relative intensity of sound.

dBA (Decibel A-Weighted)— Sound level meter readings that have been modified by meter circuitry to represent the human ear’s response to sound levels at various frequencies. For example, the human ear is less responsive to low frequencies in the 40 to 100 Hz range. Most sound level measurements related to personal exposure are made utilizing the meter’s A-weighted scale.

Hz (Hertz)—The frequency of sound in cycles per second.

Noise Dosimeter—An instrument for determining the TWA noise exposure levels in dBA over a specified period of time.

OSHA—Occupational Safety and Health Administration.

Sound Pressure Level—The level of sound, measured in dB, as compared to a reference level. The reference level for sound pressure level measurements is 0.0002 microbars which, corresponds to 0 dB.

Sound Level—The intensity of sound.

Standard Threshold Shift (STS)—A change in hearing threshold relative to the baseline audiogram of an average of 10dB or more at 2000, 3000, and 4000Hz in either ear.

Noise Level—The intensity of unwanted sound expressed in dB.

1.6 Program Responsibility for Compliance

The administration of this program will be the responsibility of the Health and Safety Coordinator.

Administrative responsibilities will include:

• Coordination and supervision of noise exposure monitoring.
• Identification of employees to be included in the Hearing Conservation Program.
• Coordination and supervision of the audiometric testing program.
• Supervision of hearing protector selection.
• Coordination and supervision of required recordkeeping.
• Periodic evaluation of the overall program.
• Coordination of required changes/improvements to the program.
1.7 Noise Monitoring

Noise exposure monitoring will be conducted to accurately identify employees who are exposed to noise levels at or above the equivalent of 85 decibels (dBA) averaged over an 8 hour working day. The exposure measurement shall include all continuous, intermittent and impulsive noise within the regulated 80- to 130-dBA range. For each situation requiring testing, there will be an assessment of the best test method suited to that particular situation. Noise dosimeters and sound level meters, which comply with the provisions of 29 CFR 1910.95, shall be used whenever employee exposures are evaluated. All dosimeters and sound level meters used to monitor employee noise exposure shall be calibrated in accordance with the prescribed manufacturer’s procedures in order to ensure accurate measurements.

1.8 Audiometric Testing

Audiometric testing monitors the sharpness and acuity of an employee’s hearing over time and provides the opportunity to educate employees about their hearing and the need to protect it. Baseline and annual audiograms will be performed on all employees whose exposures equal or exceed an 8-hour time-weighted average (TWA) of 85 decibels (dBA). These tests shall meet the following criteria.

- Audiometric testing will be provided at no cost to employees covered under this standard.

- Audiometric tests will be performed by a licensed or certified audiologist, otolaryngologist, other physician, or technician who is certified by the Council of Accreditation in Occupational Hearing Conservation, or who has satisfactorily demonstrated competence in administering audiometric examinations. All tests shall be conducted in a room with specific background noise as per OSHA’s 29 CFR 1910.95.

- Baseline audiograms will be conducted within 6 months of an employee’s first exposure at or above the action level in order to establish a valid baseline audiogram against which subsequent audiograms can be compared.

- Testing to establish a baseline audiogram will be preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used as a substitute for the requirement that baseline audiograms be preceded by 14 hours without exposure to workplace noise.

- The Health & Safety department will maintain records of all employee audiometric test records. These records will include:
  - Name and job classification
  - Date of audiogram
  - The examiner’s name
  - Date of the last acoustic or exhaustive calibration of the audiometer, and
  - Employee’s most recent noise exposure assessment.
1.9 Audiometric Evaluation

Each employee’s annual audiogram will be compared to his/her baseline audiogram by a qualified evaluator to determine if a Standard Threshold Shift (STS) has occurred. In determining if a Standard Threshold Shift exists, the following must occur:

- An allowance can be made for the contribution of aging (presbycusis). The age correction values to be used are found in Appendix F of 1910.95.
- If the annual audiogram indicates that an employee has incurred a Standard Threshold Shift, the person will be scheduled for a retest within 30 days to determine if the threshold shift is persistent.
- All persons experiencing a Standard Threshold Shift will be trained, fitted, and required to use hearing protectors if they are exposed to an 8 hour time weighted average sound level of 85 decibels or greater.
- The Health and Safety Coordinator will inform the employee, in writing, within 21 days of this determination, of the existence of a permanent Standard Threshold Shift. A copy of the STS letter will also be sent to the employee’s supervisor or union representative.

1.10 Hearing Protection Equipment

Hearing protection will be made available to all employees who are exposed to 85 dBA or greater over an 8-hour TWA. All affected employees based on this determination will be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors at no cost to them. Training and instructions on the proper use and care of this equipment will be the responsibility of the Health and Safety Coordinator. After the training has occurred, employees will be held accountable for properly using and maintaining the equipment furnished. It is the responsibility of the supervisor to ensure that hearing protectors are worn by all employees who are exposed to noise levels at or above the eight-hour TWA of 90 dBA or if the employee experienced a permanent STS or has not yet had a baseline audiogram.

1.11 Recordkeeping

All noise exposure measurement records will be retained for two years. Audiometric test records will be retained for the duration of the affected worker’s employment plus thirty years.

1.12 Program Evaluation

At least annually, the Health and Safety Coordinator will evaluate the Hearing Conservation Program for any deficiencies and updates needed. After the evaluation, the changes/revisions to the program deemed necessary will be made as soon as possible.
Hearing Protection Equipment Summary

**Rochester Public Schools**

<table>
<thead>
<tr>
<th>Type (Muff/cap/plug)</th>
<th>Name (Brand and Model)</th>
<th>Noise Reduction Rating</th>
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<tr>
<td>Plug</td>
<td>ETY Plugs ER-20 High-Fidelity Hearing Protection by Etymotic Research Inc.</td>
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<td>Muff</td>
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<td>Plug</td>
<td>Corded Disposable Foam Plug by Peltor</td>
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<tr>
<td>Plug</td>
<td>Band-Style Hearing Protectors by Howard Leight</td>
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<td>Muff</td>
<td>Ear Muff Protectors by E-A-R</td>
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Form 2.1

Standard Threshold Shift Letter

Dear ____________,

Your most recent audiometric test result was compared to your baseline audiogram. This comparison indicates that your hearing has deteriorated to the point where your hearing impairment constitutes a “Standard Threshold Shift.” This is defined by the Occupational Safety and Health Administration (OSHA) as a relative hearing loss of an average of 10 decibels (dB) in either ear at the frequencies of 2000, 3000 and 4000 Hz.

An audiogram cannot define why you have a hearing loss, but there are many possible reasons such as infection, wax buildup in your ear, and noise exposure. By taking the necessary action now, we can try to stop hearing loss from getting worse. Consequently, we want to fit you with hearing protectors. Please call __________ to arrange an appointment with ____________.

Whenever you are in a work environment that would result in noise exposure that equals or exceeds an 8-hour Time Weighted Average (TWA) of 85 decibels, hearing protection must be used. Loss of hearing will affect your life. Please preserve your hearing while you still have the chance.

The Health and Safety Department of Rochester Public Schools will attempt to answer any questions you may have.

Sincerely,

Name
Title