



ENVIRONMENTAL HEALTH AND SAFETY PROGRAM

Hearing Conservation Program

Medford Area Public School District

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Medford Area Public School District	
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Purpose

The Medford Area Public School District is committed to preserving our employee's hearing. The implementation and maintenance of this Program has been assigned to Dave Makovsky, Director of Building and Grounds, who will be called the Hearing Conservation Program Administrator.

Assessment of Employee Noise Exposures:

The Program Administrator, working with Pat Sullivan, District Administrator, will identify jobs or tasks to be assessed for noise exposure and conduct or coordinate that assessment.

Appendix A contains the criteria for the noise level surveys and criteria for continuing assessment of employee noise exposures as well as employee involvement in the surveys.

Appendix B contains:

Table I

- Areas, tasks, or equipment included in the survey
- The results of the initial survey or survey after implementation of controls
- Job titles with exposure to the area, task or equipment
- Potential for exposure above the Action Level
- Noise Reduction rating required

Table II

- Areas, tasks, or equipment included in the survey
- Any engineering, administrative, or work practice control measures utilized to reduce employee exposure to noise
- The noise levels after the controls have been implemented.
- The results of any survey taken to address changes in the workplace

The Permissible Exposure Limit is an average noise exposure over 8 hours for an employee, regardless of hearing protection, of 90dBA. At this noise level hearing protection is required to be worn.

The Action Level is an average noise exposure over 8 hours for an employee, regardless of hearing protection, of 85dBA. At this noise level the employee shall be included in this Hearing Conservation Program.

The Program Administrator shall utilize the information from the survey first to identify and implement controls that reduce employee exposure to high noise levels:

- Engineering control: reduces noise level at the source by baffles, enclosure, replacement with a less noisy piece of equipment
- Administrative control: worker rotation to distribute the noise exposure among workers or over different shifts.

Work practice controls: setting up work farther from the source, limit time required to perform the task, selecting quieter equipment, schedule work for lower noise level times

Where implementation of controls does not reduce employee exposure below the Action Level, the Program Administrator shall ensure those employees are included in the Hearing Conservation Program.

All employees shall inform the Program Administrator of any changes in work duration, equipment, or work conditions that will increase or decrease employee noise exposures.

The Program Administrator shall, after all controls are in place, survey to find the tasks or reasonably anticipated groups of tasks that will be performed for a duration that can exceed the Action Level. The following job titles are included in this Program:

- Maintenance Employees
- Shop Instructors
- Band Instructors

Audiometric Screening:

Employees in these job titles (as well as other district employees) have the opportunity to have a audiometric screening completed by the district's school nurse.

Hearing Protection:

The Program Administrator shall provide hearing protection that attenuates employees' noise exposure below the Permissible Exposure Limit. Employees with a Standard Threshold Shift will be provided with hearing protection that reduces their noise exposure below the Action Level.

The adequacy of hearing protection attenuation to employee noise level exposures:

- 1) Subtract 7 from the Noise Reduction Rating of the hearing protection device.
- 2) Subtract that number from the noise level exposure of the task or equipment used by the employee.
- 3) The noise attenuation level shall be 85dBA or less for employees who:
 - a. Have not had their baseline audiogram
 - b. Have had a work related Standard Threshold Shift
- 4) Otherwise the noise attenuation level shall be 90dBA or less.

The Program Administrator shall re-evaluate the adequacy of hearing protectors whenever employee noise exposure increases could exceed the capacity of the hearing protection. More effective hearing protection will be provided where necessary.

The Program Administrator shall make sure that the variety of hearing protection shall be provided to all employees exposed to an eight-hour Time Weighted Average of 85dBA or more.

Hearing protection shall be provided free of cost and replaced as necessary.

Locations of hearing protection:

- Maintenance / Grounds Area
- Technical Education Classrooms
- Band / Music Classrooms

Supervisors shall ensure proper initial fitting, the correct use, and training in the use and care of all hearing protectors provided for all employees, regardless of inclusion in the Program.

Training:

When employees are exposed to the Action Level or above they shall be trained. The training shall be repeated annually.

The Program Administrator shall ensure employee participation in the training and update the training program as necessary to reflect changes in equipment, work processes, and conditions.

A copy of 1910.95 shall be posted at the District Office and on the district's webpage: www.medford.k12.wi.us under Environmental Management.

Training shall cover the following topics.

- The effects of noise on hearing;
- The purpose of hearing protectors;
- The advantages, disadvantages, and attenuation of various types of hearing protection;
- Instructions on selection, fitting, use, and care of hearing protection; and

Recordkeeping:

An accurate record of all employee exposure measurements shall be maintained by the Program Administrator and located at the District Office. These records shall be maintained for 2 years.

All employee audiometric screenings shall be maintained by the Program Administrator and located at the District Office. The records shall be maintained for the duration of the employee's employment.

All records shall be provided upon request to employees, former employees, representatives designated by the individual employee, and the State of Wisconsin.

"Appendices."

1910.95(n)(1)

Appendices A, B and C

Appendix A: Employee Noise Exposure Survey Administration

Affected employees or their representatives shall be allowed to observe the noise survey providing they wear required personal protective equipment and hearing protection. Employees exposed above the Action Level shall be notified of the results of the Noise Exposure Survey.

When a task or group of tasks creates the potential for an employee's exposure to equal or exceed an 8-hour time-weighted average of 85 decibels, noise level monitoring shall be conducted.

- The sampling strategy shall be designed to identify employees for inclusion in the hearing conservation program and to enable the proper selection of hearing protectors.
- Where sound level measurements indicate a probability for exposures above the Action Level, either a noise dosimeter that records the employee's personal noise exposure shall be used or the employee shall be included in the Hearing Conservation Program.
- All continuous, intermittent and impulsive sound levels from 80 decibels to 130 decibels shall be integrated into the noise measurements.
- Instruments used to measure employee noise exposure shall be calibrated to ensure measurement accuracy.

Monitoring shall be repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that:

- Additional employees may be exposed at or above the action level; or
- The attenuation provided by hearing protectors being used by employees may be rendered inadequate to meet the requirements of paragraph (j) of this section.

When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. C is the total time of exposure to a specified noise level. T is the maximum duration of exposure before reaching an 8 hour Time Weighted Average of 85dBA.

Noise Level	Time (T)
85	8 hours
90	4 hours
95	2 hours
100	1 hours
105	30min
110	15min

For each 5dBA increase in noise level the maximum duration decreases by half.

If the sum of the fractions: $C(1)/T(1) + C(2)/T(2)$, etc. exceeds one the Action Level is exceeded.

Example:

Task 1: Cleaning the boiler takes 4 hours, C1. The noise level is 85dBA so T1 is 8 hours, $4/8 = 0.5$

Task 2: Cleaning the air handler ducts takes 3 hours, C2. The noise level for this task is 90dBA, T1 is 4 hours. $3/4 = 0.75$

$0.5+0.75 = 1.25$, the employee's exposure exceeds the Action Level.

Administrative control: perform the tasks on two different days.

Engineering control: turn off noise generating equipment, replace high noise level equipment and re-evaluate the noise exposure.

Appendix B: Employee Noise Exposure Survey Results

Job Title(s)	Task/equipment	Sound level (dBA)	Maximum duration	Potential for exposure above the Action Level	Noise reduction rating required for Hearing protection
Band Instructors	See Noise Monitoring Report from EMC Insurance – dated 10/28/13 (page 3-5)				
Technical Education Instructors					
Custodial					

Engineering, administrative, safe work practice controls implemented and Sound level

Appendix C: Audiometric Screenings

Qualifications of person performing the Audiometric Screenings:

Audiometric screenings shall be performed by the district's school nurse.

Follow-up procedures:

- If the school nurse notices a difference in screening results, she will encourage the employee to seek medical attention.