

APPENDIX 7

Hearing Protection

WAC 296-817

Introduction

When hearing is lost because of noise exposure, it cannot be restored. Under WISHA regulations, employees exposed to high noise levels must have an active program for protecting their employees' hearing. This program should contain provisions for identifying and evaluating high noise exposures, controlling and reducing noises in the workplace and, when necessary, protecting workers to prevent hearing loss and monitor their hearing.

Noise induced hearing loss is a preventable condition when proper controls and protection are used. Towards that end, the resources here are designed to provide guidance to workers and employers with occupational noise concerns.

Regulatory Information

In Washington State general industry, hearing conservation is covered under the Washington Administrative Code (WAC) 296-62-Part K and WAC 296-817

Engineering Noise Controls

For preservation of hearing, the primary tool is elimination of noise from the workplace through engineering controls. The primary strategies for controlling noise are elimination at the source, absorption or blocking along the noise path or isolation of the worker.

Hearing Conservation Programs

While noise control systems are being evaluated and installed or where it is not feasible to bring employee noise exposures down to acceptable levels, it is required to establish a hearing conservation program. The required elements of the program are:

- a) Monitoring--Noise exposure levels must be measured wherever they may reasonably be expected to be above an eight-hour time weighted average of 85 dBA.
- b) Noise Controls--must be evaluated and implemented wherever employee exposures are at or above an eight-hour time weighted average of 90 dBA.
- c) Audiometric Testing Program--all employees with an eight-hour time weighted exposure of 85 dBA or above must be included in an audiometric testing program. A baseline audiogram must be established within the first six months of exposure and annual testing and evaluation must be done.
- d) Hearing Protection--The employer must provide hearing protection for all employees that have an eight-hour time weighted exposure of 85 dBA or

above, who have any continuous exposure at or above 115 dBA, or who have an exposure to any impulse noise levels above 140 dBA.

- e) Training--Employers must provide training to all employees exposed to noise at or above an eight-hour time weighted average of 85 dBA. Training must include the following items: the effects of noise on hearing, information on hearing protectors and their use, information on audiometric testing and its purpose, and the employee's right to access to records. The employer must maintain a written description of the training program.

Actual Noise Level Measurements

Extensive noise level testing has not been performed and documented at parishes and schools within the Archdiocese of Seattle. Over the next year, noise level testing will be done to assess if a formal Hearing Conservation Program as required by WISHA is needed.

Most areas of the parish or school are well within the noise level safe zone. A few areas that may be of concern as they may be near the 85 dBA action level are gymnasiums, band rooms and some equipment operated by parish/school maintenance and grounds crews, e.g., vacuum cleaners, lawn mowers, gas-powered string-trimmers and snow blowers.

As a precautionary measure, be sure hearing protection is worn by parish/school maintenance employee's when operating stationary or portable machinery that is at 85 dba or greater.

NIOSH Noise Exposure Checklist

1. Have all operations or equipment believed to exceed an 8 hour time-weighted average of 85 dBA been measured to determine their noise levels?
2. If noise levels from operations or equipment equal or exceed 85 dBA, has personal noise dosimetry been performed on exposed persons to determine their 8-hour time-weighted-averages?
3. Does the school administer a continuing, effective hearing conservation program when noise exposures equal or exceed 85 dBA as an 8-hour time-weighted-average?
4. Are hearing protectors available at no cost to all persons exposed to noise levels at or above 85 dBA as an 8-hour time-weighted-average?
5. Have feasible engineering or administrative controls been used to reduce operation or equipment noise levels to below 90 dBA as an 8-hour time-weighted-average?
6. Are noise measurements repeated when a change in operations or equipment may increase noise exposure?
7. Are employees permitted to observe noise measurements?
8. Are employees notified of noise monitoring results when exposures equal or exceed 85 dBA as an 8-hour time-weighted-average?
9. Are hearing protectors evaluated to verify that they effectively reduce noise to levels below 85 dBA as an 8-hour time-weighted-average?
10. Are noise measurement records maintained for at least two years?
11. Are employees' hearing test records maintained for the duration of matriculation or employment?
12. Is a copy of the WISHA noise standard available to employees or students, with a copy posted in the classroom or work area?
13. If noise measurements indicate an 8-hour time-weighted-average of 85 dBA or greater, is a training program given that covers the effects of noise on hearing; the purpose of hearing protection and how to use it; and the purpose of audiometric testing?
14. If noise measurements indicate an 8-hour time-weighted-average of 85 dBA or greater, are baseline and annual audiometric tests given at no cost to employees or students using properly calibrated testing equipment?
15. Are audiometric tests preceded by at least 14 hours without career-technical or occupational noise exposure?
16. Are audiometric tests conducted by a licensed or certified audiologist; otolaryngologist, or other physician; or by a technician who is certified by

- the Council of Accreditation in Occupational Hearing Conservation or who has demonstrated competence in administering audiometric tests?
17. If audiometric tests show hearing loss due to noise exposure at work, are procedures in place for appropriate referrals, mandatory use of hearing protection, and training?
 18. Do all students or employees exposed to 85 dBA or above as an 8-hour time-weighted-average receives hearing conservation training when they begin work and annually thereafter?

APPENDIX 7 Outdoor Heat Protection

WAC 296-62-095

Introduction

Heat-related illness (HRI) is a well recognized hazard in the outdoor work environment. HRI includes heat fatigue, heat rash, fainting, heat cramps, heat exhaustion, and heat stroke. Excessive heat exposure is also linked to injuries from falls, equipment operation accidents and other on-the-job incidents due to fatigue, dizziness, and disorientation. Any outside job performed within the Archdiocese is at risk for a HRI. The Outdoor Heat Exposure rule (WAC 296-62-095) uses simple, common sense requirements for addressing the heat hazard at or above prescribed temperatures between May 1st and September 30th of each calendar year when temperatures are at or above those specified in Table 1 of WAC 296-62-09510 or WAC 296-307-09710. An exception is provided for those with “incidental” exposure as defined in WAC 296-62-09510(3) and WAC 296-307-09710(3). **Incidental exposure** means employees performing work activities in an outdoor environment for a total of fifteen minutes or less in a sixty-minute period. This applies every hour during the work shift.

Table 1

To determine the temperature trigger, select the type of clothing or PPE the employee is wearing and whether the work is being performed in the direct sun or the shade.

	Work in direct sun	Work in shade
Work clothes	89°F	96°F
Double-layer woven clothes (e.g., cotton coveralls on top of summer clothes)	77°F	87°F
Vapor barrier (e.g., encapsulating suit or turn out gear)	52°F	62°F

Note: The trigger temperatures in Table 1 are based on a dew point of 50°F and were developed for use by the state of Washington.

Temperature, humidity and other environmental factors.

The supervisor and the employee will monitor the outdoor temperature/humidity where work will occur. Given the outdoor temperature, Table 1 will be consulted to develop a work plan. Environmental factors that increase the susceptibility for HRI include air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity, duration and personal protective equipment worn by employees.

Provisions to reduce HRI:

- 1) Rest breaks as needed to reduce the feasible risks of HRI. It is important to remove personal protective equipment during all breaks when feasible.
- 2) Encourage frequent consumption of water.

Drinking Water WAC 296-62-09560: On days when the temperature is at or above those listed in Table 1 of the regulation, employees will be provided a sufficient quantity of drinking water which is readily accessible at their work location. The water quantity will be sufficient to allow each employee to drink at least a quart or more of water each hour. Drinking water or other appropriate beverages must be suitable to drink (WAC 296-62-09520 and WAC 296-307-09720). [Note: “suitable” includes ensuring that water is cool enough to be readily drinkable. Water or other beverages left sitting in the sun will easily become too hot to drink.]

As the temperature increases through the day, additional water will be made available or replaced. It is the responsibility of the employer to ensure that the supply of available drinking water does not run out.

Employees may voluntarily bring their own drinking water or other appropriate beverages to work. However, the employer is still responsible for ensuring that a sufficient quantity of drinking water is available at the worksite so that each employee has the opportunity to drink at least one quart per hour.

Note: Drinking water packaged as a consumer product and electrolyte-replenishing beverages such as sports drinks that do not contain caffeine are acceptable.

- 3) Development of procedures for responding to signs or symptoms of possible HRI and accessing medial aid.

Time is critical when people are experiencing heat stress/heat stroke. The quicker an employee experiencing symptoms can be removed from the heat and cooled down, the better the chances are for a full recovery. On days when the temperatures will be at or above those listed in Table 1 of the regulation, the parish/school or Archdiocesan facility will:

On a separate section added to this manual:

(List practices or procedures adopted to reduce heat exposure which will be used to help cool affected individuals at the site-specific location. Also, describe method to be used for accessing emergency medical services.)

Never leave an employee who is experiencing heat-related problems by themselves; if they do not respond quickly to cooling attempts, immediately call emergency medical services. If a co-worker is experiencing difficulty, do not hesitate to bring it to the attention of the supervisor or lead worker.

- 4) Employees are responsible for monitoring their own personal factors for heat-related illness, which includes ensuring they consume adequate water.

Responding to signs and symptoms of heat-related illness WAC 296-62-09550.

When environmental factors present a condition listed in Table 1, employees showing signs or demonstrating symptoms of heat-related illness must be relieved from duty and provided with a sufficient means to reduce body temperature. Examples include the following: the provision of shaded rest areas, misting stations, or temperature-controlled environments (for example, air-conditioned trailers). Employees showing signs or demonstrating symptoms of heat-related illness must be monitored to determine whether medical attention is necessary.

Information and training WAC 296-62-09560.

All employees who work outdoors must have annual Safety Training. If the employee is hired after the annual Archdiocesan training, the Seattle Archdiocesan Website, under the Safety Section of the Property and Construction Services Page, provides resources for training. This training must occur each year prior to month of May. All supervisors of employees who work outdoors can consult the Archdiocesan web site for supervisor training.