Hearing Conservation

PURPOSE

The purpose of the Hearing Conservation Program is to ensure that all Advanced Excavating Specialists and Five Rivers Construction employees are protected from exposure to noise hazards. Employers whose workers are exposed to high noise levels must have an active program for protecting their employees' hearing. Advanced Excavating Specialists and Five Rivers Construction goal is to protect their employees from hazardous noise exposure and prevent hearing loss.

PROCEDURE

An effective hearing conservation program should first assess company wide noise exposures in order to identify any employee or group of employees exposed to noise. Noise is measured with a sound level meter or noise dosimeters, which measure average noise levels over time. Employees who are exposed to noise at or above an eight—hour time-weighted average of 85 dB (decibels) must be covered under a hearing conservation program. For these employees, the employer must develop, implement, and maintain (at no cost to the employees) a program consisting of:

- Mandatory audiometric testing
- Making hearing protection available and ensuring their use.
- Comprehensive training explaining hearing loss, hearing protection devices, and the employer's hearing conservation program.
- Warning signs for high noise areas (115 dBA or higher).
- Keeping accurate records.
- Ensuring employees have access to their records.

Additionally, the employer must post a copy of the hearing conservation standard or post a notice to affected employees or their representatives that a copy of the standard is available at the workplace for their review.

If you need assistance in noise measurement, you can contact the Consultation Section of the Department of Labor and Industries; the industrial hygiene consultants can help you free of charge.

Training for employees will be done at the first pre-job meeting and documented on Safety Meeting minutes form or Certified Training form (see Appendix Forms).

IMPLEMENTATION

- General
    - Requiring the use of hearing protection 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.
- Hearing Protection
    - Required at least three types of hearing protection is available to employees, preferably a plug and a muff type.
    - Minimum Noise Reduction Ratings NRR – Hearing protection issued or used by personnel must have the following minimum NRR:
        - Ear Plugs – 29 dB
        - Muffs – 27 dB
    - Require that hearing protection is used properly and thus effectively protecting employees hearing.
    - Hearing protection attenuation will be calculated using the OSHA Hearing Conservation Procedures:
        - Actual NRR = [Rated NRR – 7 dBA / 2] = _____ dBA
- Noise Surveys
    - Noise surveys must be conducted in a manner that reasonably reflects the exposure of the affected employees. Surveys must be conducted under the supervision of the Safety Manager.
    - Sound level meters and audio dosimeters used to determine employee exposure to noise sources must be Type II (accurate to withing +/- 2dB), operated in “slow” response, on the “A” scale, and be calibrated to factory guidelines (including periodic factory re-calibration).
    - Samples must be taken with adequate duration to be representative of employee’s exposures. Monitoring is to be done whenever new equipment or processes are introduced to the work area.
- Noise & Administrative Controls
    - Eliminating noise sources to the extent possible through engineering or administrative controls. Examples of controls that must be considered:
        - Rotation of people to lower exposed positions,
        - Addition or replacement of mufflers on motorized equipment.
        - Additional mufflers to air exhaust on pneumatic equipment.
        - Following equipment maintenance procedures to lubricate dry bearings.

        - Isolation of loud equipment such as machinery, compressors, and generators from the employee work areas.
        - Replacement of older noisy equipment with newer and quieter models.
- Audiometric Exams
    - Verify that permanent employees and project employees who are required to wear hearing protection for at least six months have had an audiometric test annually. We will need to establish a baseline audiogram for each exposed employee within 6 months of first exposure.
- Training
    - Verify that each employee who must work in a noisy environment is current on the required Hearing Conservation Training. Training must include the following topics and must be reviewed annually:
        - The effects of noise on hearing.
        - The purpose of hearing protection.
        - The advantages and disadvantages of various types of hearing protection.
        - The attenuation of various types of hearing protection.
        - The selection, fitting, care and use of hearing protection.
        - The purpose of audiometric testing.
        - An explanation of the audiometric testing procedure.
- Audits
    - Annually, a program audit is to be performed for each site/project to assure that all of the above procedures are in place and effectively being managed. Reports are to be in writing and documented with corrective actions.
    - Documentation Summary – File these as permanent records:
        - Types of hearing protection and associated NRR's.
        - Noise surveys (when applicable).
        - Hearing conservation program medical clearances.
        - Training records.
        - Audit report and corrective action completion.

HEARING CONSERVATION PROGRAM AUDIT

Company: _____ Auditor:_____Date:_____

Yes	No	N/A	Hearing Conservation Program
			Hearing Conservation – *Review written program and training documentation*
			A. Is there a written Hearing Conservation Program?
			B. Has responsibility and authority for the hearing conservation program been assigned to a single individual?
			C. Does the program administrator have sufficient knowledge of hearing conservation?
			D. Are adequate resources allocated to ensure success (budgeted money with specific expenses itemized for equipment, training, etc.)?
			E. Has noise monitoring been done in the past 2 years?
			F. Is there a policy to monitor when there are changes that affect the noise level?
			G. Have any engineering or administrative controls been implemented to reduce noise exposure?
			H. Is Audiometric testing done for all employees with and 8-hour TWA exposure of 85dBA or more?
			I. Is training completed annually for all employees with an 8-hour TWA exposure of 85dBA or more?
			J. Does training include the following:
			1. The effects of noise?
			2. Purpose, advantages, disadvantages, and attenuating properties of the types of hearing protection to be used?
			3. Selection, fitting and care of hearing protection?
			4. Purpose and procedures relating to audiometric testing?
			K. Does training include the following:
			Investigation – *Observe employees, review audiogram results summary and specific audiograms of employees with threshold shifts*
			1. During your survey were all affected employees wearing their hearing protection?
			2. Is the use of hearing protection enforced?
			3. Doe supervisors know hot to coach employees in the proper fitting of hearing protection?
			4. Is the NRR (Noise Reduction Rating) at least 50% higher that the number of decibels above 85, i.e. 95TWA should have a 20 NRR (95-85 *2)
			5. Are there employees with a threshold shift in recent years?
			6. Were the appropriate actions taken as a result of the threshold shifts, i.e. administrative controls, engineering controls, re-education on proper use of hearing protection, improved enforcement of hearing protection, etc.?
			Comments
			Action Plan
			Action Responsibility Target Date

HEARING LOSS PREVENTION PROGRAM

The Hearing Loss Prevention Program is designed to protect employees from the effects of exposure to noise at Advanced Excavating Specialists and Five Rivers Construction and comply with the WISHA Hearing Loss Prevention Rule (Noise) WAC 296-817.

Noise Areas & Measurements

Noise measurements were taken of the following areas or equipment at our plant or worksite:

Area, equipment, or job duties **Noise level in decibels**

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(Date of noise measurements)
Noise level measurements were taken with _____ equipment/ instrument or by _____ consultant group.

OR

See attached A for noise level measurement data.

HEARING PROTECTION USED

The following hearing protection is provided to employees at Advanced Excavating Specialists and Five Rivers Construction. Employees will be allowed to select their choice of hearing protection in the size that fits them correctly.

Brand name of hearing protection **Sizes available (where applicable)**

_____

_____

_____

_____

Hearing Protection is available from the following person(s) or at the following location(s):

_____

_____

_____

_____

Hearing Protection is required in the following locations, job duties or when the following equipment is used:

_____

_____

_____

_____

AUDIOMETRIC TESTING

Audiometric testing will be provided at no cost to all employees whose noise exposure is equal to or exceeds an 8-hour average of 85 decibels, who have the following positions, or work at the following locations:

_____

_____

_____

Optional: (Some employers decide or find it easier to cover all employees who might be overexposed to high noise sometime during their employment) In addition, audiometric testing will also be provided to all employees working in the following areas or in the following job classifications:

_____

_____

_____

Audiometric testing will be provided upon first assignment to a high noise area or within 180 days of assignment. These initial test results are the baseline results. Annual testing following these initial tests will be compared to the baseline test results for all employees who continue to work in high noise areas.

The Safety Manager will schedule audiometric testing for employees.

For baseline test, employees will be instructed to avoid unprotected exposure to high noise levels at least 14 hours before testing is done.

If a standard threshold shift (a drop in hearing ability of at least 10 decibels in three frequencies – 2000, 3000, or 4000 hertz) is found, the employee may be retested within 30 days (note – retesting is optional)

Employees will be provided with results of their individual audiometric exams. If a standard threshold shift is found, employees will be notified in writing within 21 days of determination.

If a standard threshold shift is found in any employees, the following will also be done:

- The employee not wearing hearing protection will be provided to them.
- The employee already using hearing protection will be re-fitted and re-trained.
- The employee will be referred to an audiologist or ear, nose & throat specialist for futher evaluation.
- The employee will be informed of the need for an ear exam if a medical cause unrelated to noise exposure is expected.

Audiometric testing will be conducted by a licensed or certified audiologist, ear, nose & throat physician, or audiology technician certified by the Council of Accreditation in Occupational Hearing Conservation.

Audiometric testing is conducted by: _____.