



NOISE AWARENESS



Purpose

The purpose of this program is to establish minimum expectations as well as provide a process to minimize Arrow S Energy Operating (the company) employee hearing loss caused by excessive occupational exposure to noise and to educate employees on an awareness level basis.

Scope

This program is applicable to all employees who may be exposed to noise in excess of 85 decibels (decibels). However, this program may be adopted for use by contractors who do not have a Noise Awareness program..

Definitions

Audiometric testing: means detection by the person being tested of a series of pure tones. For each tone, the person indicates the lowest level of intensity that they are able to perceive.

Decibels: means the sound energy measured by a sound level meter using the “A” scale. The “A” scale is electronically weighted to simulate the response of the human ear to high and low frequency noise.

Slow Response: means the setting on the sound level meter that averages out impulses of brief duration that would cause wide fluctuation in the sound level meter reading.

Standard Threshold Shift: means a change in hearing threshold relative to the baseline audiogram of an average of 10 dB (corrected for age) at 2000, 3000 and 4000 Hz in either ear.

Key Responsibilities

Managers and Supervisors

- Ensure requirements of this program are established and maintained.
- Ensure employees are trained and comply with the requirements of this program.

Employees

- Wear hearing protection when required, attend the training, and cooperate with testing and sampling.
- Hearing protection shall be worn by any employee entering an area designated with a sign requiring hearing protection.

Procedure

Occupational hearing loss is a cumulative result of repeated or continued absorption of sound energy by the ear. Employee protection is based on reduction of the noise level at the ear or limiting the employee’s exposure time. Arrow S Energy Operating offers hearing protection to all employees exposed to potential high noise levels in working areas and to those employees requesting hearing protection.



Hearing Conservation Program (the program)

The company will administer a continuing effective hearing conservation program when employees, who work in areas where the exposure to noise levels are 85 decibels or greater for the 8-hour time-weighted average of 85 decibels, must wear hearing protection and the company will implement a monitoring program to identify employees to be included in the hearing conservation program. Employees will wear hearing protection in signed areas while on a company owned or operated facility.

Surveys

In the event the company has employee(s) working in an area that meets the Program noise thresholds, the company will conduct surveys utilizing a qualified employee or third party.

To evaluate noise exposure in terms of possible hearing damage, it is necessary to know the overall sound level ("A" scale measurement), the exposure time of the individual in hours per day and the length of time the individual has worked in the area being surveyed. This data shall be supplemented by the following:

- Name of area and location
- Date and time of survey
- Name of person conducting survey
- Description of instrument used, model and serial number
- Environmental conditions
- Description of people exposed

The company shall notify each employee of their monitoring results, or, if their job is exposed to noise 85 decibels or greater.

A plot of noise levels must be made for owned facilities that meet the program requirements. The plot must be filed or posted at the facility.

The company shall evaluate hearing protector attenuation for the specific noise environments in which the protector will be used. The adequacy of hearing PPE shall be reevaluated whenever noise exposures increase to the point that the PPE provided may no longer provide adequate protection. The shall then provide more effective PPE where or when necessary.

All sound measuring equipment must be calibrated before and after each survey. Records of sound measuring equipment calibration and noise level surveys shall be kept for 20 years.

Noise Surveys must be repeated whenever changes in the workplace may expose additional personnel to high noise, or when hearing protection being used by employees may not be adequate to reduce the noise exposure to a level below 85 decibels.

Sound Level Surveys

- All owned facilities that are suspected of having noise levels exceeding 85 decibels must be screened.

Exposure Surveys:

- A representative sampling of employees shall be conducted to determine the exposure to noise over a period of time.



- Noise dosimeters must be capable of integrating all continuous, intermittent and impulsive sound levels from 80 dB to 130 dB and must be calibrated so a dose of 50% corresponds to a time weighted average of 85 dB.

Signage

Clearly worded signs shall be posted at entrances to, or on the periphery of, areas where employees may be exposed to noise levels in excess of 85 decibels. These signs shall describe the hazards involved and the required protective actions.

Audiometric Testing

Arrow S Energy Operating shall establish and maintain an audiometric testing program by making audiometric testing available to all employees whose exposure to noise 85 decibels (8 hr TWA) or greater, and employees should be provided an opportunity to take an annual audiogram test. The program shall be provided at no cost to employees.

- The company shall establish a valid baseline audiogram against which future audiograms can be compared. An employee must receive a baseline audiogram within six months of their first exposure to 85 decibels or greater for an eight hour period.
- When a mobile van is used the baseline shall be established within one year.
- An employee shall receive an annual audiogram every year they work in a position that is exposed to noise 85 decibels or greater for an eight hour period.
- A qualified third party shall perform all audiometric testing, evaluation, reporting and retesting.
- Audiometric testing shall be preceded by a period of at least 14 hours during which there is no exposure to workplace sound levels in excess of 80 decibels. This requirement may be met by the use of hearing protectors that reduce the employee noise exposure level below 80 decibels and employees shall also be notified to avoid high levels of noise.
- An otoscopic exam is required before an audiogram is initiated. A qualified person shall examine the ear canal for any ear infections or canal irregularities that might affect the audiogram or rule out the use of earplugs.

At least annually, and after obtaining the baseline audiogram, the company shall obtain a new audiogram for each employee exposed at or above an 8-hour time-weighted average of 85 decibels for an eight hour time weighted period. Annual audiograms shall be evaluated as follows:

- Each audiogram shall be compared to the employees' baseline audiogram to ensure the test was valid and to determine if a standard threshold shift has occurred.
- If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift, the employee shall be informed of this fact in writing, within 21 days of the determination.
- If a standard threshold shift is determined, the employee will be retested within 30 days.
- The retest results will be considered as the annual audiogram.
- Employees shall be informed of their audiometric test results in writing within 21 days of determination.
- If the employee has sustained a standard threshold shift, after retesting, that employee shall be retrained and refitted for appropriate hearing protection.
- The employee shall be referred for additional medical evaluation if indicated.



Records

Arrow S Energy Operating shall maintain accurate record(s) of all employee exposure measurements and that all records are maintained as required by CFR 1910.95 (Occupational Noise Exposure).

Employee audiograms are considered medical/exposure records. These records must be kept for the length of employment plus 30 years.

Hearing Protection Devices

Earmuffs and earplugs shall be made available to employees in sizes and configurations that will be comfortable to the employee.

Proper hearing protection will be made available to the employee at no cost. Hearing protectors shall be available to all employees exposed to an 8-hour time-weighted average of 85 decibels or greater at no cost to the employees. Hearing protectors shall be replaced as necessary.

Supervisor and employees shall ensure that hearing protectors are worn when and where required.

Training

A training program shall be provided for all employees who are exposed to a noise action level or work in high noise areas. The training shall be repeated annually for each employee.

The training shall address the effect of noise on hearing; the purpose of hearing protectors, including the advantages, disadvantages and alternatives of various types, including instructions on selection, fitting, use and care of and the purpose of audiometric testing and an explanation of test procedures.

Training shall be updated to be consistent with changes in the PPE and work processes that include instruction on the proper techniques of use, fit and wearing of hearing protectors.

All staff shall have a copy of this program, noise exposure procedures and it shall be posted at the worksite and a copy made available to all employees, their representatives and regulatory agencies. This document can be found at www.arrowsenergy.com/hse

The training must be documented.