

Safety Resources from **KEMI**

Sample Hearing Conservation Program

Purpose: The purpose of this policy is to protect employee hearing and comply with current OSHA regulations. Certain protective measures including, but not limited to, engineering controls and personal hearing protection may be mandatory in designated areas.

Scope: This policy covers any employee whose occupational noise exposure is over 85 dBA over eight hours, who has experienced a standard threshold shift in hearing or is exposed to noise over 140 dBA. Operations involving shears, riveting, etc. are covered by this standard. All visitors, contractors, hourly and salaried employees are required to utilize the proper protective equipment as determined from noise monitoring in an area.

Procedure: In order to provide a safe workplace for employees, a hearing conservation program including noise exposure monitoring, engineering control, audiometric testing, the use of hearing protection devices and employee education shall be implemented throughout the company. Specific areas to be covered are those in which employee noise exposure exceeds an eight hour time weighted average (TWA) sound level of 85 decibels measured on the A scale (dBA) or where impact noise limits are exceeded. The exposure measurements must include all noise within an 80 dBA to 130 dBA range and must be measured during a typical work situation.

Noise Exposure Monitoring

1. Identification of excessive noise areas shall be completed through noise surveys conducted by plant personnel.
2. Determination of excessive noise areas shall be made by surveys once every two years or within 60 days of any changes which may result in new noise exposures over a TWA of 85 dBA.
3. In the event of personal monitoring, each employee shall be notified in writing by their supervisor of that employee's exposure within 20 days of such monitoring.

Noise Control

Engineering Control: All areas and processes must be engineered to control noise levels to within the limits as described above when technically and economically feasible. Engineering control involves reducing the level of noise generated or transmitted.

Administrative Control: If engineering controls are not feasible, the Hearing Conservation Program must be implemented. This policy involves the details of the program.

Posting

Excessive noise areas will be posted with the following sign:

NOTICE: HEARING PROTECTION REQUIRED IN THIS AREA

Hearing Protection

1. Hearing protection devices shall be mandatory in an area where an employee's TWA exposure exceeds 85 dBA or has experienced a standard threshold shift. Protection will be provided at exposures below 85 dBA on request.

2. Hearing protectors shall attenuate employee exposure to or below 85 dBA TWA.
3. The employee's supervisor or other designated plant personnel shall fit and instruct employees in the proper use and care of protection devices.
4. Ear muffs and formable ear plugs shall be available through the employee's supervisor.
5. Disposable hearing protectors shall be disposed of daily (or sooner if contaminated with dirt, oils, etc.).
6. Only approved hearing protection devices shall be allowed in excessive noise areas.

Audiometric Testing

1. A professional audiologist (specialist dealing with individuals having impaired hearing), otolaryngologist (physician specializing in the diagnosis and treatment of disorders of the ear, nose and throat), or a physician must be responsible for the testing. Both professionals and trained technicians may conduct audiometric testing. The professional responsibilities include overseeing the testing and the work of the technicians, reviewing problem audiograms, and determining whether referral is necessary.
2. All new employees shall have an audiogram at the time of their pre-employment health evaluation or within 6 months of an employee's first exposure at or above 85 dBA. Audiograms will also be done on all existing personnel prior to their assignment to a high noise area. At the time of the audiogram, a history of any ear diseases or hearing loss from any source and past exposure will be taken.
3. Employees in a high noise area (above 85 dBA TWA) shall be given a new audiogram at least annually.
4. All audiometric testing shall be preceded by at least 14 hours without exposure to a noise risk environment. Exposure may be limited by either absence from the area or by wearing proper hearing protection.
5. Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if:
 - a. The audiogram is valid.
 - b. A significant threshold shift has occurred.

If a significant threshold shift occurs:

1. A retest must be performed within 30 days to determine if the shift is permanent.
2. Employees who were not using hearing protectors shall be fitted, trained in their use and care, and required to use them.
3. Employees already using hearing protectors shall be refitted and retrained in the use of hearing protectors, and if necessary, provided with hearing protectors offering greater attenuation.
4. If retesting reveals that the significant threshold shift is not permanent, the use of hearing protectors by that employee may be discontinued, unless the employee is required to wear hearing protectors due to noise exposure in excess of 85 dBA TWA.
5. If a significant threshold shift has been determined to be permanent, the appropriate plant personnel must: notify the employee in writing within 21 days of the results; and if it is suspected that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors, refer the employee for a clinical audiological evaluation or an otological examination, as appropriate.

Employee Training

The effectiveness of a hearing conservation program depends on the cooperation of both management and employees involved. Management's responsibility in this type of program includes noise measurement, initiation of noise control measures, provision of hearing protection equipment, informing employees of the benefits to be derived from a hearing

conservation program and enforcement of the policy. It is the employee's responsibility to make proper use of the protective equipment provided and to observe any rules or regulations in the use of equipment to minimize noise exposure. Employee training must be done annually for all employees exposed above the 85 dBA limit. Specific topics outlined by the training include:

1. Noise standard requirements.
2. Contents of the Hearing Conservation Amendment, including the role of engineering and administrative controls in noise reduction.
3. Effects of noise on hearing.
4. Work areas which have excessive noise levels.
5. Purpose and procedures of audiometric testing.
6. The selection, fitting, use and care of hearing protection devices.

Recordkeeping

The person in charge of the program shall keep accurate exposure records and maintain them for five years. They shall include:

1. Name and job classification of the employee measured and of all other employees whose exposure is represented by the measurement.
2. Date, location and result of each measurement taken and the number of measurements.
3. Description of the noise measurement equipment used and date of its last laboratory calibration.
4. Audiometric test records shall be kept in the employees' medical folder for the duration of employment plus 30 years. Information should include:
 - a. Name and job classification
 - b. Date of audiogram
 - c. Examiner's name and qualifications
 - d. Manufacturer and model of audiometer
 - e. Date of last calibration of audiometer
 - f. Employee's most recent noise exposure assessment.

Responsibilities

Person in charge of the program:

1. All new employees will have an audiogram at the time of their pre-employment health evaluation or within six months of employee's first exposure at or above 85 dBA.
2. Initiate training of new employees exposed to noise at or above an eight hour time weighted average of 85 decibels.
3. Conduct the annual training program for each employee included in the program.
4. Notify employee in writing within 21 days of determination of the existence of a permanent significant threshold shift.
5. If additional testing is necessary to determine the cause of the permanent shift or if it is suspected that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors, refer employee to the appropriate healthcare professional.
6. Keep records pertinent to audiometric test results, employee exposure measurements and audiometric calibration and background sound pressure levels in test room.
7. Review all monitoring results.
8. Inform line management of results.
9. Contact a professional audiologist to manage and perform testing.
10. Arrange for noise surveys to identify excessive noise areas.
11. Arrange for baselines.
12. Fit and instruct employees in proper use and care of protection devices.

Supervisors:

1. Enforce the use of hearing protection in appropriate areas.
2. Inform employees when personal monitoring procedures are scheduled in their areas.
3. Participate in meetings to determine positive actions to be taken if monitoring results exceed action limits or desired results.
4. When there are significant changes in machinery or production processes that may result in increased noise levels, remonitoring must be conducted to determine whether additional employees need to be included in the program.

Engineering Groups:

1. Provide expertise to determine corrective actions necessary to eliminate substandard conditions or improve existing conditions.
2. When there are significant changes in machinery or production processes that may result in increased noise levels, remonitoring must be conducted to determine whether additional employees need to be included in the program.

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