

Town of Kernersville Safety and Health Policy and Procedure Manual	Hearing Conservation Program Section 0050	Date 3/98	Revised 08/25
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I. Introduction

This Hearing Conservation Program is designed to protect all persons who work in high levels of noise, as defined by OSHA standards, from sustaining significant work-related hearing impairment.

II. Scope

This policy applies to all Town employees who, as part of their normal job function, are required to work in areas with noise exposure levels greater than or equal to 85 dBA (8-hour time-weighted average) as determined through both area and personal monitoring results.

III. Standard

NCOSHA 29 CFR 1910.95: Occupational Noise Exposure

IV. General Requirements

1. Sound level surveys will be conducted to determine which employees work in areas or on jobs which subject them to noise levels greater than or equal to 85 dBA (8-hour time-weighted average). These employees shall be included in the Hearing Conservation Program and shall have hearing protection made available to them. If the area or job has been designated as greater than 90 dBA (8-hour time-weighted average) noise exposure level, employees shall be required to use hearing protection whenever in the area or on the job. In lieu of sound level testing, Department Heads shall assume that any employee exposed to high noise levels shall be included in the Hearing Conservation Program until a survey can be performed.
2. All employees included in the Hearing Conservation Program shall be required to have an annual audiogram and shall receive training in hearing conservation. The cost of this audiogram shall be paid by the employee's department.
3. All employees who exhibit OSHA-designated significant changes in hearing on an annual audiogram shall receive appropriate follow-up procedures. These occurrences are considered OSHA recordable and must be documented on the OSHA Form 300. (Section V, D 5&6)

V. Specific Procedures

A. Noise Exposure Measurements

1. Employee noise exposure measurements shall be conducted by the Safety Administrator for the following purposes:
 - a. To determine whether hazards exist in a given work area or job task

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- b. To determine whether noise presents a safety hazard by interfering with speech communication or the recognition of audible warning signals,
 - c. To identify employees who shall be included in the Hearing Conservation Program
 - d. To classify employees' noise exposures for prioritizing noise control efforts and defining and establishing hearing protection practices,
 - e. To evaluate specific noise sources for noise control purposes, and
 - f. To evaluate the success of noise control efforts.
2. Noise measurements shall be conducted using instruments meeting current American National Standards Institute (ANSI) Standards, as a minimum. All continuous, intermittent and impulsive sound levels from 80 to 130 dB shall be integrated into the measurements. The calibration accuracy of all measurements shall be checked before and after measurements are made.
3. Initially, measurements shall be made of sound levels at all regular employee work locations and on all regular employee job activities using, as a minimum, a Type 2 sound level meter as defined by ANSI. Whenever worker mobility, variations in sound level or significant impulse or impact noise exists in any job activity, personal sampling with a noise dosimeter that meets all applicable ANSI requirements shall be performed. Dosimeter measurements shall be for the purpose of identifying employees whose 8-hour time-weighted average noise exposure levels equal or exceed 85dB
4. Department Heads shall request that the Safety Administrator coordinate noise exposure measurements:
 - When engineering, machinery or administrative modifications have been made in any work area or to any work process;
 - On any job activity which may significantly affect employees' noise exposure levels, expose additional employees at or above the action level of 85dBA, or render inadequate the attenuation provided by hearing protectors being used by employees.
5. Each employee exposed at or above an 8-hour time-weighted average noise exposure level of 85 dBA, shall be notified of the results of their noise monitoring. Affected employees shall be given the opportunity to observe their noise measurements as they are taken, if they request to do so.
6. The results of all noise exposure measurements shall be properly recorded, documented and filed in the Safety Administrators office. A summary of the measurements shall be forwarded to the Department Head.

B. Engineering and Administrative Controls of Noise Exposure

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1. The technologic and economic feasibility of engineering noise controls shall be determined on a case-by-case basis in all work areas or job activities where employee noise exposure levels exceed an 8-hour time-weighted average noise exposure level of 90 dBA or impulse or impact noise exists whose peak sound pressure level exceeds 140 dB.
2. In cases where the application of relatively simple noise control solutions will reduce the noise hazard to the extent that the other elements of the Hearing Conservation Program will no longer be necessary for employees in these work areas, such controls shall be implemented. Employees shall be counseled about the operation and maintenance of noise controls by their supervisor.
3. Within the limitations of work schedules and employee training, feasible administrative noise controls shall be considered. Where practical, overexposed employees shall be moved at appropriate intervals to work areas or jobs which have acceptable noise levels in order to comply with exposure duration specifications of Table G-16 of the noise regulation (see Standard).

C. Personal Hearing Protection

1. The proper, consistent wearing of hearing protectors shall be required whenever an employee is exposed to noise above an 8-hour time-weighted average noise exposure level of 90 dBA. The proper, consistent wearing of hearing protectors shall be a condition of employment and employees shall be so advised of this requirement at their hearing conservation training session.
2. The proper consistent wearing of hearing protection shall be encouraged whenever an employee is exposed at or above an 8-hour time-weighted average noise exposure level of 85 dBA. Each supervisor of employees in such work areas shall insure that a supply of hearing protectors approved by the Safety Administrator is available to the employee.
3. The issuance of all types of hearing protectors shall always be preceded by training in the proper procedures for wearing, caring for and cleaning the devices issued. This training shall be provided by the employee's supervisor.
4. All new employees whose job activity will require them to be exposed to high noise levels, either continuously or intermittently, shall be initially fitted with appropriate hearing protection. Employees shall be responsible for the care of hearing protectors. Non-disposable hearing protectors should be washed daily with soap and water to avoid ear infections or irritations. When the devices are no longer serviceable due to deterioration, a new pair may be obtained by requesting them from the employee's supervisor.
5. Every effort will be made to outfit each affected employee with a comfortable pair of hearing protectors. The ability to wear some type of approved hearing protection

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device in designated areas or while performing designated activities shall be a condition of employment. If an employee is unable, for documented medical reasons, to use any type of hearing protector, the employee shall not be assigned to work in high noise areas.

6. Hearing protection is not to be shared. Each employee should wear only his/her hearing protection.
7. Audits shall be made periodically to assure compliance with the hearing protector use requirement.

D. Audiometric Testing Program

1. All new employees, required to work in areas with high noise levels, shall be given an audiometric test to establish baseline hearing threshold levels before being assigned to work in such areas. Before the baseline test, the employee is not to be subjected to industrial or loud non-occupational noise for a period of fourteen hours.
2. All employees exposed at or above an 8-hour time-weighted average noise exposure level' of 85 dBA shall be provided with an annual audiometric test at no cost to the employee. The employee's department may at any time have an audiometric test performed on any noise exposed employee if hearing deterioration is suspected. A thorough otologic/audiologic case history shall be taken each time an audiometric test is performed.
3. The audiometric testing program shall be under the supervision of an audiologist, otolaryngologist or a physician with expertise in the area of hearing assessment and protection, who shall also function as the professional reviewer of the audiograms performed as part of the Town's Hearing Conservation Program. The individual who conducts audiometric tests shall exhibit at least the minimum level of training required by 29 CFR 1910.95 (g) (3). The successful completion of an audiometric technician training course approved by the Council for Accreditation in Occupational Hearing Conservation (CAOHC) will satisfy this requirement. Audiometric technicians shall be retrained/recertified as necessary to comply with CAOHC requirements.
4. All audiograms shall be administered using a properly calibrated audiometer in a sound-treated room with acceptable background sound levels during testing (see Appendix of the OSHA noise regulation). The audiometer's calibration status shall be checked on each day of testing, according to the requirements of 29 CFR 1910.95 (h) (5) (1). This check shall include the following:
 - a. Testing a person with known, stable hearing thresholds or an equivalent electronic device and comparing established thresholds to previously established threshold values to assure that deviations for any frequency do not exceed 5dB and

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- b. Listening to the audiometer's output to be sure that it is free from distorted or unwanted sounds.
 - c. Audiometers shall be electronically and acoustically checked annually in accordance with the requirements of 29 CFR 1910.95 (h) (5) (ii) and (iii).
- 5. Each employee's annual audiogram shall be compared to his or her baseline audiogram to determine if the audiogram is valid and if a standard threshold shift (as defined by OSHA) has occurred. In making this comparison, the technician or professional reviewer may take into consideration appropriate age corrections as defined in the OSHA noise regulation. If a standard threshold shift is detected, follow-up steps as outlined in the standard shall be implemented promptly in order to increase the degree of protection for the affected employee. These steps include:

Safety & Administrator's Responsibilities:

- a. Coordination of a noise-free test to determine the validity of the threshold shift;
- b. Determination by the professional reviewer of the need for referral of the employee for additional testing or examination.
- c. After examination and age allowance, if the shift is still present; notification of employee in writing with 21 days;
- d. Ensuring fitting or refitting, as appropriate, of the employee's hearing protectors and training or retraining in the proper use and care of hearing protectors.

Supervisor's Responsibilities:

- a. Fitting, refitting, as appropriate, of the employee's hearing protectors,
- b. Training or retraining, as appropriate, of the employee in the proper use and care of hearing protectors.

Departments Responsibilities:

- a. Payment for additional testing and professional review
- 6. Should it be suspected through testing or upon diagnosis by the professional reviewer or another medical professional that an employee has experienced an occupational hearing loss, the appropriate information shall be documented on the OSHA Form 300.
- 7. Audiograms performed as part of this policy are the property of the Town and shall be controlled by the Safety Administrator. All test results shall be a part of the

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employee's permanent medical file and shall not be released to anyone except the employee or their representative without the documented consent of the employee in question.

8. Audiometric technicians shall insure that proper department and employee identification is shown on each audiogram, as well as the following information:
 - a. The specific purpose of the audiometric test (baseline, annual, retest, other)
 - b. The specific audiometric equipment used and its most recent calibration date
 - c. The tester's name
 - d. The date and time of the audiometric test
 - e. The otologic/audiologic case history information
 - f. The hearing threshold values obtained
 - g. The tester's judgement of the subject's response reliability
 - h. The tester's comments, if any
 - i. The results of the hearing protector inspection, and a record of any refitting, reissuing or retraining
9. The audiometric testing program, as defined in this section, will detect Town employees who begin to develop significant hearing impairment as a result of on-the-job noise exposures; at the same time, it will identify employees whose off-the-job noise exposures or personal medical or genetic conditions may be producing hearing threshold changes. Appropriate counseling shall be provided to all employees who exhibit significant hearing loss of any type. Medical or audiological referral shall be made whenever deemed appropriate by the audiometric technician, after consultation with the program supervisor described in (D) (3).

E. Employee Training

1. The Safety Administrator schedules employee training annually to insure each employee with an 8-hour time-weighted average noise exposure level of 85 dBA or above is trained in hearing conservation. The training program shall consist of a presentation that informs each employee of the following items, as required by 29 CFR 1910.95 (k) (3):
 - a. The effects of noise on hearing;
 - b. The purpose of hearing protectors; the advantages, disadvantages, and attenuation of various types; and instructions on selection, fitting, use and care of hearing protectors; and
 - c. The purpose of audiometric testing and an explanation of the test procedures and typical findings.
 - d. A copy of 29 CFR 1910.95.

During training, employees shall be encouraged to ask questions about their involvement in the hearing conservation program.

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2. In accordance with 29 CFR 1910.132 (f) (4) "Personal Protective Equipment", each employee shall certify that they have received and understood the required training through a written certification that contains the employee's name, signature, the date of training and the subject of the certification. This information shall be recorded on the training roster provided as Appendix C or approved online training roster.

F. Recordkeeping

1. The Safety Administrator shall maintain records that support compliance with all applicable federal and state standards and with all sections of this policy. These records shall be available at all times for inspection by authorized Town personnel, by affected employees or their designated representatives and government inspectors.
2. In the case of employee audiograms and other associated medical records, access shall be limited to the affected employee or representative, authorized personnel and representatives of the Assistant Secretary of Labor.
3. Although computer storage of records is permitted, original copies of all records associated with individual audiometry and noise exposure monitoring shall be retained in the appropriate files maintained by the Safety Administrator.

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Appendix A

HEARING PROTECTOR WEAR, CARE AND FITTING

How to properly wear hearing protectors

It is an OSHA requirement that the employer ensures the proper initial fitting and that the employer provides training in the use and care of all hearing provided to employees.

Employee hearing protection training is required:

- 1) Annually during Hearing Conservation Training
- 2) Each time an employee shows a Standard Threshold Shift change in hearing.

To prevent a hearing loss, hearing protectors must be worn correctly and taken care of. Keep your ear plugs clean by washing them in warm soapy water and make sure they are completely dry before inserting them in your ears. Inspect your hearing protection regularly. If they become damaged, hard, worn out, advise your Supervisor that you require a new pair.

Due to the fact that everyone has different size ear canals, each employee will be instructed on how to put their personal hearing protectors in and also be given the chance to practice in front of a Hearing Conservationist. Two different types of hearing protectors will be provided to employees. If there is a problem with the fit comfort of your hearing protectors, see your Supervisor about a different type of protection.

How long will my hearing protection last?

Sponge plugs: 1 or 2 days

Custom plugs: 18-24 months

Insert plugs: 4-6 months

Muffs: Replace when worn out

The life of the hearing protector is dependent upon the care it is given. A sponge type hearing protector is disposable. But, as long as it is clean, it may be used until it no longer expands. How long the hearing protection lasts is unique to each employee depending on the chemical make-up of their body.

PUTTING IN EARPLUGS ONLY INVOLVES TWO STEPS

FIRST

Put your left arm
over your head and
with your left hand
pull up on your
right ear.



SECOND

With your right hand
insert the ear plug.

Switch hands and insert
the other plug in the same
manner.

Remember, both plugs
must be worn for
complete protection

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APPENDIX B

COMMON NOISE LEVELS

COMMON NOISE LEVELS (in decibels)	
Threshold of hearing	0
Quiet Whisper	20
Quiet office; Audiometric testing	40
Average residence; Large office	50
Conversational Speech	60
Freight train – 100ft	70
Average automobile – 30 ft.	74
Very noisy restaurant; Average factory	80
Lawn mower; Diesel truck 40 mph – 50 ft.	85
Electric drill	88
Subway; printing shop	90
Garden tractor	92
Shop vacuum	98
Looms in textile mill; Electric furnace area; Table saw	100
Loud rock music; Chain saw; Pneumatic shipper	115
Hydraulic press; 50 hp siren – 100 ft.	120
Jet airplane	140
Rocket launching	180

