

# **HEARING CONSERVATION PROGRAM GUIDE**

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# SAMPLE

## HEARING CONSERVATION PROGRAM

Name of Agency/Institution/Campus/Center \_\_\_\_\_

### I. PURPOSE

The purpose of this hearing conservation program is to prevent occupational hearing loss and comply with OSHA Standard CFR 1910.95 – Occupational Noise Exposure Hearing Conservation Amendment.

*The statement of Agency/Institution Policy and top management commitment should go here*

Name \_\_\_\_\_, Title \_\_\_\_\_, is responsible for assuring implementation of Agency/Institution policy concerning hearing conservation.

### II. NOISE MONITORING

#### A. Noise Survey (Refer to non-mandatory Appendix G of OSHA Noise Standard (1910.95))

1. Identify surveyor (e.g. company, insurance agency, government agency etc. by name) \_\_\_\_\_
2. Date of survey \_\_\_\_\_
3. Method of survey:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(brief description of how the noise was measured, e.g. dosimeter study, sound level meter measurements, brief description of any sampling strategy use e.g. type of sound measurement equipment used)

4. Results of survey, e.g.  
The following activities, locations, operations, etc. (as applicable) were found to equal or exceed 85dBA as an eight-hour average:

\_\_\_\_\_  
\_\_\_\_\_

*or*

The following activities, locations, operations, etc. (as applicable) were found to exceed 90 dBA as an eight-hour average:

\_\_\_\_\_

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B. Monitoring

1. When information indicates any employee's exposure may equal or exceed an eight-hour time weighted average of 85 decibels, a monitoring program will be implemented.
2. Where circumstances such as high worker mobility, significant variations in sound level, or a significant component of impulse noise make area monitoring generally inappropriate, representative sampling will be used to comply with the monitoring requirements of the standard unless sampling produces equivalent results.
3. All continuous, intermittent and impulse sound levels from 80 decibels to 130 decibels will be integrated into the noise measurements.
4. Instruments used to measure employee noise exposure will be calibrated to ensure measurement accuracy.
5. Monitoring will be repeated whenever a change in production, process, equipment or controls increases noise exposure to the extent that:
  - Additional employees may be exposed at or above the action level; or
  - The attenuation provided by the hearing protection devices being used by employees may be rendered inadequate to meet the requirements of paragraph (j) of the standard.

**III. AUDIOMETRIC TESTS**

A. Testing.

1. Audiometric testing will be performed at no cost on all employees whose exposures equal or exceed an 8-hour time-weighted average TWA of 85 decibels (Action level).
2. Audiometric tests will be performed by:

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(Specify 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 satisfactorily demonstrated competence in administering audiometric examinations). A technician who operates microprocessor audiometers does not need to be certified. A technician who performs audiometric tests must be responsible to an audiologist, otolaryngologist or physician.

3. Audiograms will be conducted at least annually after obtaining the baseline audiogram for each employee exposed at or above an 8-hour time-weighted average of 85 decibels

B. Baseline Audiogram

1. A baseline audiogram will be conducted within 6 months of an employee's first exposure at above the action level in order to establish a valid baseline audiogram against which subsequent audiograms can be compared.
2. *Include if a mobile test van is used.* Where a mobile test vans are used to meet the audiometric testing obligation, the \_\_\_\_\_ (Position designated) will obtain a valid baseline audiogram will be obtained within 1 year of an employee's first exposure at or above the action level. Where baseline audiograms are obtained more than 6 months after the employee's first exposure at or above the action level, employees will wear hearing protectors for any period exceeding six months after first exposure until the baseline audiogram is obtained.
3. Testing to establish a baseline audiogram will be preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used as a substitute for the requirement that baseline audiograms be preceded by 14 hours without exposure to workplace noise.
4. The \_\_\_\_\_ (Position designated) WILL NOTIFY EMPLOYEES OF THE NEED TO AVOID HIGH LEVELS OF NON-OCCUPATIONAL noise exposure during the 14-hour period immediately preceding the audiometric examination.

C. Records

The \_\_\_\_\_ (Position designated) will maintain a record of all employee audiometric test records. This record will include:

- Name and job classification of the employee.
- Date of the audiogram.
- The examiner's name.
- Date of the last acoustic or exhaustive calibration of the audiometer.
- Employee's most recent noise exposure assessment.

#### IV. AUDIOMETRIC EVALUATION

- A. Annual audiograms will be compared to the baseline audiogram to determine if a standard threshold shift had occurred. Standard threshold shift is defined as a change in hearing threshold relative to the baseline threshold of an average of 10 dB of more at 2000Hz, 3000Hz, and 400Hz. The technician who is administering the audiometric test may do the comparison.

- B. Comparison of an annual audiogram to an audiogram from the preceding year is not acceptable unless the audiogram of the preceding year is the baseline audiogram. \_\_\_\_\_ (State the policy for evaluation of the audiograms. *When selecting a vendor, determine how and who will provide the interpretation. Assure that the vendor understands that the annual audiograms must be compared to the baseline audiogram.*)

*(Baseline audiograms may be revised if in the judgement of the audiologist, otolaryngologist or physician, the standard threshold shift is deemed to be persistent or if there is significant improvement in subsequent audiograms.)*

- C. Retesting may be done within thirty days after the annual audiogram to determine if the annual audiogram should be regarded as valid. If the follow up audiogram shows improvement, it may be used as the annual audiogram.

*(Interface with the vendor to determine how this might be accomplished and document policy for retesting here if it is to be considered an option. Consideration of another vendor may be necessary for such follow up testing if mobile testing services are used.)*

- D. Evaluation of problem audiograms will be done by a \_\_\_\_\_ (Specify physician, audiologist, or otolaryngologist) to determine if there is a need for further evaluation. The evaluator will be provided with the following information:

- a copy of the hearing conservation amendments to the noise standard
- the baseline audiogram and the most recent audiograms of the affected employee
- measurements of the background sound pressure levels in the audiometric testing room or chamber (which the vendor should be able to supply, and
- the record of audiometer calibration as prescribed in the noise standard, paragraph (h)(5).

- E. Follow-up procedures. If there is a standard threshold shift, the employer has certain specific obligations.

1. In writing inform the affected employee of any standard threshold shift within 21 days of receipt of the results by \_\_\_\_\_ (Indicate responsible party). The employee will also be informed of what will be done as a consequence (e.g. provide repeat testing within 30 days). A Standard Threshold Shift letter (see Form #2) is an appropriate method of documenting this information to the employee. A copy of the STS letter will also be forwarded to the employee's supervisor.

2. Unless the \_\_\_\_\_ (Specify physician, audiologist or otolaryngologist) has made a determination that the standard threshold shift is not work related, the following steps will be taken:
- Hearing protection will be provided for all affected employees not already using them; employees will be fitted and trained in the care and use of the protective devices; and protective devices are required to be used as a condition of employment.
  - Refitting and retraining will be provided for all employees who are already wearing hearing protection; hearing protection devices with greater attenuation will be provided.
  - If additional testing is necessary or if there is reason to believe that there is a medical pathology that is created or aggravated by the use of hearing protection devices, the employee will be referred to \_\_\_\_\_ (Specify physician, audiologist, or otolaryngologist) for a clinical audiological evaluation.
  - The employee will be informed of any need for further otological examinations that might result from determination of a medical pathology that is not related to the use of hearing protection devices by \_\_\_\_\_ (Specify procedure).
  - Hearing loss will be entered on the OSHA 300 log if determined to be work related and as required by 29 CFR 1904.0 – 1904.46.
  - If subsequent audiometric testing of employees who have noise exposures that are less than 90 dBA as an eight hour weighted average are determined to have improved, the affected employees will be informed of the new audiometric determination and may discontinue the use of required hearing protection.

## V. PERSONAL PROTECTIVE EQUIPMENT

- A. Provision and use of hearing protection is required as a condition of employment for all employees who work in areas or at operations in which their noise exposure exceeds 90 dBA as an eight hour average.

*Where use of PPE is required because of an exposure to noise in excess of 90 dBA as an eight hour average, policy must include a disciplinary procedure that, at a minimum, provides for a warning (re-training), intermediate discipline (e.g. suspension without pay), and finally dismissal for any employee who consistently refuses to abide by the policy for using the required PPE.*

- B. PPE is available on request for all employees who work in areas or at operations in which their noise exposure equals or exceeds 85 dBA as an eight hour average.
- C. Provision of PPE  
A choice of several types of hearing protective devices is provided to allow employees to select the most comfortable hearing protection.

*It is recommended that at least two types of earplugs and one type of earmuff be made available. The OSHA Standard 1910.95 requires that a variety of hearing protection devices be made available.*

- 1. Types of PPE provided: \_\_\_\_\_
- 2. Employees will obtain and replace PPE by contacting \_\_\_\_\_ (Specify position).
- 3. Hearing protectors were selected because they are capable of providing attenuation to at least \_\_\_\_\_ dBA. A choice of several types of hearing protection devices is provided to allow employees the most comfortable style or type. Employees are encouraged to try different types in order to determine their preference.
- D. Hearing protection devices must provide sufficient attenuation to assure protection to at least 90 dBA.
- E. If the employee has experienced a standard threshold shift (hearing loss), as defined in the noise standard, the hearing protection must be capable of providing sufficient attenuation to assure protection to at least 85 dBA
- F. Procedures for defining the appropriate attenuation rating are provided in Appendix B of the noise standard (1910.95).
- G. The \_\_\_\_\_ (Position designated) will evaluate the attenuation characteristics of the hearing protection devices to ensure that a given device will reduce the employee's exposure to the required decibel level. (See Form #3)

**VI. EMPLOYEE EDUCATIONAL TRAINING**

- A. An annual training program will be provided for all employees who are exposed to noise levels at or above an eight-hour average of 85 dBA.
- B. Training will be conducted by \_\_\_\_\_ (Position designated) and will include information on:
  - 1. The effects of noise on hearing.
  - 2. The purpose and use of hearing protectors.

3. The advantages and disadvantages of various types of protection.
  4. Instruction in the selection, fitting, use and care of protectors.
  5. The purpose of audiometric testing and an explanation of the test procedures.
- C. The training program will be repeated annually of all employees exposed to noise at or above an eight hour average of 85 dBA.
- D. The following information must be made available as a part of the training program:
1. A copy of the OSHA Noise Standard 1910.95
  2. Any informational materials pertaining to the standard that are provided by OSHA
  3. Any materials related to the employer's training and education program upon request to any representative of the Commissioner of the Virginia Department of Labor and Industry

Form #4 can be used to record the training dates and the employees in attendance.

## **VII. RECORDKEEPING**

- A. Audiometric testing records are be maintained \_\_\_\_\_ (Position designated) and will be available for the duration of employment.
- B. Noise exposure measurements will be maintained for two years.
- C. The record of audiometric testing will include the following:
1. The name and job classification of the employee
  2. The date of the audiogram
  3. The examiner's name
  4. The date of the last acoustic or exhaustive calibration of the audiometer
  5. The employee's most recent noise assessment
  6. An accurate record of the background measurements in the testing room or chamber

## **\*VIII. PROGRAM EVALUATION**

At least annually, the Hearing Conservation Program will be evaluated by \_\_\_\_\_ (Position designated) using a Program Evaluation Checklist (See Form # 5). After the evaluation, the changes/revisions to the program deemed necessary will be made as soon as possible.

This written program may be adapted to fit the particular needs of your facility.

**NOTE: When there is an asterisk (\*) placed in front of a guideline, then this program is not required by the Hearing Conservation Standard.**



Form # 2

## Sample Standard Threshold Shift (STS) Letter

Dear \_\_\_\_\_,

Your most recent audiometric test result was compared to your baseline audiogram. This comparison indicates that your hearing has deteriorated to the point where your hearing impairment constitutes a “standard threshold shift.” This is defined by the Occupational Safety and Health Administration (OSHA) as a change in hearing threshold relative to the baseline audiogram of an average of 10 decibels in either ear at the frequencies of 2000, 3000 and 4,000Hz.

An audiogram cannot define why you have a hearing loss; there are many possible reasons besides occupational noise exposure such as infection or wax buildup in your ear.

By taking the necessary action now, we can try to stop hearing loss from getting worse.

Consequently, we want to fit you with hearing protectors. Please call \_\_\_\_\_ to arrange an appointment with \_\_\_\_\_.

Whenever you are in a work environment that would result in noise exposure that equals or exceeds an 8 hour Time Weighted Average (TWA) of 85 decibels, hearing protection **must** be used.

Loss of hearing will affect you life. Preserve your hearing while you still have a chance.

Our \_\_\_\_\_ Department will attempt to answer any questions you may have.

Sincerely,





## Annual Hearing Conservation Program Evaluation

1. Noise exposure level monitoring has been completed in all areas and rechecked as necessary after any alterations, which may have resulted in a change in noise levels.  
Yes \_\_\_ No \_\_\_

If no, what action will be taken to complete the monitoring?

2. Baseline audiograms (if required) have been completed on all employees hired this year.  
Yes \_\_\_ No \_\_\_

If no, what arrangements will be made to complete the audiograms?

3. Annual audiograms (if required) have been completed on all employees who are included in the hearing conservation program.  
Yes \_\_\_ No \_\_\_

If no, what arrangements will be made to complete the audiograms?

4. All employees included in the hearing conservation program have been provided with hearing protection.  
Yes \_\_\_ No \_\_\_

If no, what action will be taken to provide this protection?

5. All employees who are required to wear hearing protection are wearing them correctly.  
Yes \_\_\_ No \_\_\_

**If no, what action(s) will be taken to enforce this requirement?**

- 6. All employees included in the Hearing Conservation Program have received initial and annual training in the use of hearing protection, the effects of noise on hearing and the purpose of audiometric testing if applicable.**

**Yes \_\_\_\_\_ No \_\_\_\_\_**

**If no, what will be done to complete this training?**

- 7. Standard Threshold Shifts (STS) have been identified.**

**Yes \_\_\_\_\_ No \_\_\_\_\_**

**If no, what action will be taken with these employees?**

- 8. Employees with STS's have been notified in writing and fitted with the proper hearing protectors.**

**Yes \_\_\_\_\_ No \_\_\_\_\_**

**If no, what action will be taken to notify these employees?**

**Review Completed by: \_\_\_\_\_ Date: \_\_\_\_\_**

Table # 1

**Permissible Noise Exposures**

**29 CFR 1910.95 Table G-16(a)**

<b>Duration (Hours)</b>		<b>Sound Level Slow Response</b>
32.0		80
27.9		81
24.3		82
21.1		83
18.4		84
16.0		85
13.9		86
12.1		87
10.6		88
9.2		89
8.0		90
7.0		91
6.2		92
5.3		93
4.6		94
4.0		95
3.5		96
3.0		97
2.6		98
2.3		99
2.0		100
1.7		101
1.5		102
1.3		103
1.1		104
1.0		105