



PPE HEARING CONSERVATION

It is the policy of Tate Engineering Systems to protect the hearing of all workers whose noise exposures equal or exceed an action level of 85 decibels (dB) for an 8-hour day while at a client site. In accordance with this policy, we will work within the scope of the client's Hearing Conservation Program. This program applies to all persons working in areas or with equipment that have noise levels of 85 decibels, "A-weighting" (dBA) or higher at a client site. Tate Engineering Systems, Inc. does not have noise exposure at its facilities that requires a hearing conservation program. For tasks that generate noise levels at or above an actionable level Tate Engineering team members are provide hearing protection to wear during the duration of completing the task. The PPE guidance is part of our PPE Program which aligns with 29CFR 1910.32

SCOPE

This program applies to all operations and work areas where employees and other personnel may be exposed to hazardous noise levels.

PROGRAM ADMINISTRATION

The Safety Manager will:

- Develop a training program and ensure training of employees in hearing conservation issues and practices.
- Assist as needed with the training of employees in the Hearing Conservation Program at the client site.

The Service Manager will:

- Request from client their records of conducted and documented noise surveys areas/activities where potential noise exposures may equal or exceed an 8-hour time-weighted average (TWA) of 85 dBA.
- When notified by employee or employee supervisor, inform client that a sound-level survey in areas where a change in activity, process, equipment, or controls may have resulted in either an increase or a decrease in employee exposure.
- Identify noise hazard areas and post appropriate signs while work is being conducted.
- Recommend appropriate engineering and/or administrative noise controls.
- Ensure the proper selection and fit of hearing protection devices (HPDs.)
- Evaluate the feasibility of engineering and/or administrative noise controls.
- Identify employees exposed to sound levels equaling or exceeding the action level at a Tate facility, and report such information to the Safety Manager and The Director of Human Resources.

Employees will:

- Wear HPDs when entering or working in identified noise hazard areas in accordance with the posted warning.
- Report potential noise hazard exposures to the supervisor.
- Comply with Hearing Conservation Program requirements at client sites when identified as being exposed to sound levels equaling or exceeding the action level.

Employees who do not comply with the provisions of this program will be disciplined in accordance with our company policy of progressive discipline.

PROGRAM REVIEW AND UPDATE

This program will be reevaluated:

- Annually.
- Whenever there is a change in production, process, equipment, or controls that might have questionable noise levels.

Definitions

Action Level—A sound level equaling an 8-hour time-weighted average (TWA) of 85 decibels on an A-weighted level (dBA), or equivalently a noise dose of 50 percent, as specified in the OSHA regulation at 29 CFR 1910.95.

Audiogram—A chart, graph, or table that results from an audiometric test. An audiogram shows an individual's hearing threshold level as a function of frequency (hertz).

Audiologist—A professional specializing in the study and rehabilitation of hearing who is certified by the American Speech-Language-Hearing Association or licensed by a state board of examiners.

Baseline Audiogram—Reference audiogram against which future audiograms are compared.

Decibel (dB)—Unit of measurement of sound level.

dBA (decibels on an A-weighted level)—A measurement of noise intensity obtained using a sound-measuring instrument commonly used to define degrees of auditory risk. The A-weighting is a measurement that closely parallels the auditory characteristics of normal human hearing.

Dosimetry—A technique of sound measurement that integrates cumulative noise exposure over time and directly indicates a noise dose.

Hearing Conservation Program (HCP)—An annual audiometric testing and hearing conservation training program for employees exposed to sound levels equaling or exceeding the action level.

Hearing Protection Device (HPD)—Personal protective equipment worn by an individual for the purpose of reducing noise exposure, including reusable and disposable earplugs, ear muffs, and similar noise attenuating devices.

Noise dose—A measure of the noise exposure to which a person is subjected in the workplace.

Standard Threshold Shift (STS)—A change in hearing threshold, relative to the baseline audiogram, of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear, taking into account any changes due to presbycusis (age-related hearing loss).

Time-Weighted Average (TWA)—Noise exposure averaged over a designated period of time (example: 8-hour TWA).

ENGINEERING AND ADMINISTRATIVE CONTROLS

When noise exposure levels exceed the permissible limits, Tate Engineering Systems, Inc. will implement engineering controls as the primary mechanism to attenuate noise emissions.

The following administrative controls will be implemented in conjunction with engineering controls to limit the amount of time that an employee works in areas where the 8-hour TWA equals or exceeds 90 dBA:

- Employee rotation
- Scheduling work assignments

Administrative controls will neither be used as a substitute for nor replace applicable requirements for a Hearing Conservation Program.

HEARING CONSERVATION PROGRAM

Monitoring

A noise survey may be request to identify the areas where employee noise exposure may exceed an 85 dB 8-hour TWA at client sites. Workers may be monitored in questionable areas with a calibrated audio dosimeter that will measure all continuous, intermittent, and impulsive sound levels between 80–130 decibels on the “A-weighted” scale (slow response).

Each employee will be notified of the monitoring results if exposed at or above the 85 dB TWA. Additional monitoring will be conducted if changes in production, equipment, processes, or controls suggest that noise exposures may have increased. Employees identified with exposure levels at or above an 8-hour TWA of 85 dB will be notified with the results of the monitoring and will be required to enroll in the Hearing Conservation Program.

Below is the table of permissible noise exposures.

Table G-16 (29 CFR 1910.95(a))	
Hours per day	Permissible sound level dBA
8	90
6	92
4	95
3	97
2	100
1½	102
1	105
½	110
1/4 or less	115

Note on Table G-16: When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. If the sum of the fractions $C(1)/T(1) + C(2)/T(2) + C(n)/T(n)$ exceeds unity, the mixed exposure should be considered to exceed the limit value. C_n indicates the total time of exposure at a specified noise level, and T_n indicates the total time of exposure permitted at that level. Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

AUDIOMETRIC TESTING

Audiometric testing and evaluation will be provided free of charge to our employees when there is a concern that exposure to noise has created a medical issue.

Base line audiograms may be required for workers with noise exposures equal to or greater than an 85 dB TWA at a client site. An annual audiogram may be substituted for the baseline audiogram when the audiologist or physician evaluating declares:

- An STS is persistent, or
- The hearing threshold in the annual audiogram indicates a significant improvement over the baseline audiogram.

Testing to establish a baseline audiogram shall be preceded by at least 14 hours without exposure to workplace noise. Hearing protection may be used to meet the requirement. Employees shall also be notified to avoid high levels of noise.

Standard Threshold Shift (STS). If a comparison of the annual audiogram with the baseline audiogram indicates that an STS has occurred, a retest within 30 days will be conducted, and the second test may be considered the annual audiogram. If an STS is confirmed, the employee will be:

- Informed in writing within 21 days of the determination
- Referred to an audiologist, otolaryngologist, or qualified physician for further evaluation
- Provided with both the baseline and the most recent audiogram of the employee and the required records on the audiometer and the audiometric test room
- Fitted or refitted with adequate hearing protectors, shown how to use them, and required to wear them

Unless the audiologist or physician determines that the STS is not work-related or aggravated by noise exposures in the workplace, the worker will be required to use suitable hearing protection. For workers exposed to noise levels below 90 dB TWA, the use of hearing protection will continue until subsequent audiometric testing indicates that the STS is not permanent.

Audiometers. The requirements for the types and calibration of audiometers and the background noise levels allowed in audiometric test rooms are specified in Appendices C,D, and E of the OSHA Noise Standard(29 CFR 1910.95). The records of the firm we plan to use for audiometric testing must be checked to confirm that they are complying with OSHA standards.

HEARING PROTECTION

Hearing protectors will be provided at no cost to employees, and a variety of suitable types will be available for their selection. Hearing protectors will be evaluated for their ability to adequately reduce the noise exposures in the workplace to a 90 dB TWA or below (or an 85 dB TWA for those workers who have experienced an STS).

Hearing protectors will be required and provided for all employees with noise exposure:

- Greater than a 90 dB TWA; or
- Equal to or greater than an 85 dB TWA and who have experienced an STS; or
- Equal to or greater than an 85 dB TWA for 6 months or more and who have not obtained a baseline audiogram.

Hearing protectors will be available to all employees for use with noise exposures between an 85 and 90 dB TWA who have not experienced an STS.

TRAINING

Workers trained in the PPE Hearing Program will receive noise protection training that covers the following topics:

- The effects of noise on hearing
- The purpose of hearing protectors
- The advantages, disadvantages, and noise reduction capabilities of the various types of hearing protectors
- Instructions on the selection, fitting, use, and care of hearing protectors
- The purpose of audiometric testing and an explanation of the test procedures

Employees not using hearing protectors that have exposure must be fitted with them, trained in their use and care, and required to use them. Employees already using hearing protectors and who have experienced an STS must be refitted and retrained in their use and be provided with hearing protectors offering greater attenuation if necessary.

The Safety Manager will make copies of the noise exposure regulations available to affected employees and any informational materials related to the regulations that are supplied to the employer by OSHA and post a copy in the workplace.

Annual Refresher Training

The training program will be repeated annually for each employee included in the PPE Hearing Program. Information provided in the training program will be updated to be consistent with changes in protective equipment and work processes.

RECORDKEEPING

Training Records

The Director of Human Resources will maintain all records of employee training and audiometric testing in the Human Resources Department located at the Baltimore Office for the duration of an employment or beyond in accordance with OSHA standards.

Injury and Illness Log

An STS of 10 dB or greater will be recorded on the OSHA 300 log if caused or aggravated by exposure to occupational noise.

Records Maintenance

PPE Hearing Program records will be maintained in the Human Resources office and are available on request to our employees or an OSHA representative. All audiometric test records will be retained for the duration of each worker's employment. Each record will include:

- Audiogram with the name and job classification of the worker, date of the audiogram, and the examiner's name
- Measurements of the noise levels in the audiometric test booth and the date of the last acoustic or exhaustive calibration of the audiometer
- Employee's most recent noise exposure measurement

Noise exposure records will be retained for at least 2 years.

Transfer of Records

If Tate Engineering Systems, Inc. ceases to do business, all PPE Hearing Program records will be transferred to its successors or agents. The records of a new employee who formerly worked in a noise hazardous location will be kept in his or her current file. A copy of a new employee's audiometric records, particularly if he or she is to work in a noise hazardous area, will be transferred to the new record.