

# Hearing Protection Program

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# 1. General

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- 1.1 Purpose** This practice establishes guidelines to:
- Protect GTE employees against the effects of work-related noise exposure.
  - Establish and maintain an audiometric testing program.
  - Facilitate compliance with state and federal Occupational Safety and Health Administration (OSHA) regulations.
- 1.2 Filing Instructions and Supersedures** Discard all previous issues and associated addenda of this practice and file this issue numerically in your GTE practices set.
- This practice supersedes and cancels:
- All policies, procedures, general instructions, letters, and memoranda which address this subject.
  - Any document which provides information contrary to the information contained in this practice.
- 1.3 Reason for Reissuing** This practice has been reissued to incorporate multiple changes in the content. Read this entire practice to ensure your familiarity with the new information.
- 1.4 Responsibility** This practice was published by the GTE Enterprise Services Department. For more information about this practice, contact the local Safety, Health, and Environment Group.
- 1.5 Disclaimer** This practice was prepared solely for the use of GTE. It must be used only by its employees, customers, and end users when installing, operating, maintaining, and repairing GTE's equipment, facilities, and services. Any other use of this practice is forbidden. The information contained in this practice may not be applicable in all circumstances and is subject to change without notice. By using this practice the user agrees that GTE will have no liability (to the extent permitted by applicable law) for any consequential, incidental, special, or punitive damages that may result.

## 2. Overview

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- 2.1 Administering the Hearing Protection Program** Administer this program when employee noise exposures equal or exceed an 8-hour time-weighted average (TWA) sound level:
- Of 85 decibels measured on the A-scale of a sound level meter at slow response.  
OR equivalently
  - A dose of 50% (1/2 of the permitted duration per workday as shown in Exhibit 2 or shown on a noise dosimeter).

## 2. Overview, continued

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### 2.2 Definitions

The following chart provides definitions for the acronyms and terms used in this practice.

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<b>Acronym or Term</b>	<b>Definition</b>
AC	Alternating Current
dB	Decibel (unit used for measuring sound)
dBa	Decibels measured on the A-scale of a sound level meter
Hz	Hertz; a unit of frequency (one cycle per second)
NRR	Noise Reduction Rating
OSHA	Occupational Safety and Health Administration
TWA	Time-Weighted Average

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### 3. Exposure Limits

#### 3.1 When to Use Hearing Protection

You must wear hearing protection to protect yourself against the effects of noise exposure when the sound levels exceed those shown in Exhibit 1.

Hearing protection is available to any employee who requests it, even though his or her noise exposure does not exceed the sound levels in Exhibit 1.

**NOTE: dB is the unit for measuring sound.**

Permitted Duration Per Workday			Permitted Duration Per Workday		
SOUND LEVEL (dBa)	(HOURS- MINUTES)	HOURS	SOUND LEVEL (dBa)	(HOURS- MINUTES)	HOURS
85	16-0	16.00	101	1-44	1.73
86	13-54	13.90	102	1-31	1.52
87	12-6	12.10	103	1-19	1.32
88	10-36	10.60	104	1-9	1.15
89	9-12	9.20	105	1-0	1.00
90	8-0	8.00	106	0-52	0.86
91	6-58	6.96	107	0-46	0.76
92	6-4	6.06	108	0-40	0.66
93	5-17	5.28	109	0-34	0.56
94	4-36	4.60	110	0-30	0.50
95	4-0	4.00	111	0-26	0.43
96	3-29	3.48	112	0-23	0.38
97	3-2	3.03	113	0-20	0.33
98	2-38	2.63	114	0-17	0.28
99	2-18	2.30	115	0-15	0.25
100	2-0	2.00			

**Exhibit 1 – Sound Levels**

#### 3.2 Engineering and Administrative Controls

OSHA requires the use of feasible administrative or engineering controls when employees are subjected to sound levels exceeding those listed in Exhibit 1. Administrative controls are used to reduce the amount of time an employee works in a high noise level area. Engineering controls, such as an enclosure around noisy equipment, are used to physically reduce the noise level.

**NOTE: If these efforts do not reduce the sound levels to those indicated in Exhibit 1, hearing protection must be worn.**

Exposure to impulsive or impact noise must not exceed 140 dB peak sound pressure level.

## 3. Exposure Limits, continued

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### 3.3 Using Hearing Protection for Specific Equipment

You must wear hearing protection (because of extremely high noise levels) when operating the following equipment for **any** length of time unless a noise survey on the specific equipment being used determines that hearing protection is not required.

- Air chisel.
- Pavement breaker (all models).
- Tamp (all models).
- Roto hammer.
- Chain saw (all models).
- Manhole pump (gasoline power).
- Cable plows/trenchers (all types).
- Bore.
- Powder actuated tools.
- Central Office AC power generators.
- Magnum compactor.
- DD motor grader.
- Light duty backhoe.
- Medium duty backhoe.
- Heavy duty backhoe.
- Air compressor.

**NOTE:** It is impossible to list all the work activities which could require hearing protection. Analyze each activity and use hearing protection if necessary.

## 4. Identifying Areas with Possible Noise Hazards

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### 4.1 Monitoring

The Safety, Health, and Environment Group conducts monitoring at locations when:

- Information indicates that an employee's exposure might equal or exceed an 8-hour TWA of 85 decibels.
- Field forces make a request.

### 4.2 Monitoring Results

After monitoring, the Safety, Health, and Environment Group notifies the following if the noise exposure equals or exceeds the sound levels in Exhibit 2 (Section 5.2).

- Affected employee.
- Health Services.
- The affected employee's department head.
- Human Resources.

The employee and/or job identified is included in the hearing protection program. Health Services schedules audiometric tests within time frames designated in Section 5.2.

# 5. Audiometric Testing

## 5.1 Filling Job Vacancies

Health Services arranges for a new hire or transferred employee to receive an audiometric test before filling a job vacancy if the job is covered by the hearing protection program. This testing:

- Establishes a baseline level of hearing.
- Enables Health Services to determine if the person has any medical problem that would be aggravated by using hearing protectors.

## 5.2 Audiograms

Health Services arranges for baseline audiometric test for employees whose noise exposures equal or exceed:

- An 8-hour TWA of 85 decibels.  
OR equivalently
- A dose of 50% as shown in Exhibit 2.

This baseline audiogram must be given within six months of an employee's first exposure. Audiograms must be given annually thereafter as long as the employee's exposure exceeds the sound levels shown in Exhibit 2. The baseline must be reset if there is a standard threshold shift or improvement in hearing.

**NOTE: A standard threshold shift is 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.**

All persons leaving GTE or being transferred out of jobs covered by the audiometric testing program are given an exit audiometric test before leaving the job.

50% Dose		50% Dose	
SOUND LEVEL (dBa)	(HOURS-MINUTES)	SOUND LEVEL (dBa)	(HOURS-MINUTES)
85	8-0	101	0-52
86	6-55	102	0-45
87	6-0	103	0-39
88	5-15	104	0-34
89	4-35	105	0-30
90	4-0	106	0-26
91	3-29	107	0-23
92	3-2	108	0-20
93	2-38	109	0-17
94	2-18	110	0-15
95	2-0	111	0-13
96	1-44	112	0-11
97	1-31	113	0-10
98	1-19	114	0-8
99	1-9	115	0-7
100	1-0		

**Exhibit 2 - 50% Dose**

## 5. Audiometric Testing, continued

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### 5.3 Significant Threshold Shift in Hearing

If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift, Health Services takes the following steps:

1. Informs the employee and his or her coach/supervisor in writing within 21 days of determining the standard threshold shift with a copy to the Safety, Health, and Environment Group.
2. Refer the employee for a clinical audiological evaluation or an otological examination, as appropriate, if:
  - Additional testing is necessary.  
OR
  - Health Services suspects that wearing the hearing protectors is causing or aggravating a medical pathology of the ear.
3. Inform the employee that an otological examination is needed if he or she suspects a medical pathology of the ear which is unrelated to using hearing protectors.

### 5.4 Fitting and Training

The affected employee's coach/supervisor takes the following steps when Health Services notifies him or her of the problem. The employee's coach/supervisor ensures that an employee:

1. Not using hearing protectors is:
  - Fitted with hearing protectors.
  - Trained in their use and care.
  - Required to use them.
2. Already using hearing protectors is:
  - Refitted.
  - Retrained in the use of hearing protectors, offering greater attenuation if necessary.

## 6. Hearing Protectors

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### 6.1 Availability

Hearing protectors are made available and must be worn by all employees exposed to noise levels exceeding those outlined in Exhibit 1 (Section 3.1).

There are two types of hearing protectors available:

- Earmuffs.
- Earplugs.

### 6.2 Earmuff Cleaning

Clean the earmuff with warm water and a mild detergent. This removes surface dirt:

- After long use.  
OR
- For reissue.

## 6. Hearing Protectors, continued

### 6.3 Ordering Earmuffs

Use the following information to order the earmuff hearing protector and support band:

GTE Supply Item ID	Description	Order Multiple	Manufacturer
575810	Earmuffs, Over the Ear Type	1 Each	Mine Safety Appliances Company
575812	Band, Support, Protector Hearing (for use with Item ID 575810 earmuff only)	1 Each	Mine Safety Appliances Company
<b>NOTE: The band is used to provide additional support when the earmuff is worn behind the neck (for wear under a hat.)</b>			
575811	Earmuffs, Over the Ear Type <u>All dielectric construction</u>	1 Each	Mine Safety Appliances Company
575807	Earmuffs, Over the Ear Type	1 Each	Tasco Corporation
343122	Earmuffs, Over the Ear Type, Safety Cap Mount	1 Each	Bilsom Corporation

### 6.4 Ordering Earplugs

Use the following information to order the earplug hearing protector.

GTE Supply Item ID	Description	Order Multiple	Manufacturer
680920	Plugs, Ear, Disposable	1 Box, 200 Pair	Moldex/Metric, Inc.

## 7. Training Program

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### 7.1 When to Train

Employees exposed to noise levels at or above a TWA of 85 dBa, as shown in Exhibit 2 (Section 5.2), are trained at least annually. The employees' immediate coach/supervisor trains the employees on the:

- Effects of noise on hearing.
- Purpose of the hearing protector.
- Advantages, disadvantages, and attenuation of various types of hearing protectors.
- Instructions on selecting, fitting, using, and caring for the hearing protectors.
- Purpose of audiometric testing, and an explanation of the test procedures.

Obtain information about training material through the local Safety, Health, and Environment Groups. Videos on hearing protection and conservation are available from the GTE VisNet Library, 1-800-542-8011.

### 7.2 California Requirement

In California only, a copy of Article 105, Control of Noise Exposure, must be made available to affected employees. A copy of this article must be posted in the workplace. Obtain copies by contacting the California Safety, Health, and Environment Group.

## 8. Record Keeping

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### 8.1 Exposure Measurements

The local Safety, Health, and Environment Group retains noise exposure measurements for a minimum of two years.

### 8.2 Audiometric Test Records

The Safety, Health, and Environment Group retains audiometric test records in the employee's medical file for as long as the employee is working for GTE and for 20 years after an employee leaves GTE.

Audiometric test records include the:

- Name and job classification of the employee.
- Date of the audiogram.
- Examiner's name.
- Date of the last acoustic or exhaustive calibration of the audiometer.
- Employee's most recent noise exposure assessment.
- Measurements of the background sound pressure levels in the audiometric test room.

### 8.3 Training Records

In California only, training program attendance records are kept on the Safety Meeting Record/Roster. The OSHA Recordskeeper keeps the records for five years in the OSHA Record File.

For all states except California, training program attendance records are kept by the employee's coach/supervisor for at least five years.