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## STANDARD THRESHOLD SHIFT: FOLLOWUP AND RECORDING REQUIREMENTS

### I. FOLLOWUP REQUIREMENTS

**Step 1.** When a standard threshold shift from the baseline is identified on an employee's annual audiogram, it is important to determine if this shift is persistent and work related. To make this determination, contact either the original audiometric company or a qualified second provider to obtain a retest within 30 days. The retest can be the annual audiogram.

When any audiogram shows a STS or other problem it must be reviewed by an audiologist, otolaryngologist, or physician to determine the need for further evaluation. The employer must provide the following information to the person performing this evaluation:

- (A) A copy of OSHA hearing conservation standard--if needed by the reviewer;
- (B) The baseline audiogram and most recent audiogram of the employee to be evaluated;
- (C) Measurements of background sound pressure levels in the audiometric test room;
- (D) Records of audiometer calibrations.

**Step 2.** If from Step 1 the standard threshold shift is determined to be persistent and work related, you must:

- (A) Inform the employee *in writing* of the STS
- (B) Fit the employee with hearing protectors, train the employee in their use and care, and require the employee to use them.
- (C) Refit and retrain employees already using hearing protectors. Provide hearing protectors with a greater NRR, if necessary. Encourage an employee to wear dual hearing protection (ear muffs worn over insert plugs) if appropriate.
- (D) Refer the employee for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if a medical pathology of the ear may be caused or aggravated by the wearing of hearing protectors.
- (E) Inform the employee of the need for an otological examination if a medical pathology of the ear that is unrelated to the use of hearing protectors is suspected.

## II. RECORDING REQUIREMENTS FOR OCCUPATIONAL HEARING LOSS ON THE OSHA 300 LOG

Beginning on January 1, 2003, employers were required to record work-related hearing loss cases when an employee's hearing test shows a marked decrease in overall hearing. If an employee's hearing test (audiogram) reveals that the employee has experienced a work-related Standard Threshold Shift (STS) in hearing in one or both ears, and the employee's total hearing level is 25 decibels (dB) or more below audiometric zero (averaged at 2000, 3000, and 4000 Hz) in the same ear(s) as the STS, you must record the case on the OSHA 300 Log. Employers can make adjustments for hearing loss caused by aging, seek the advice of a physician or licensed health care professional to determine if the loss is work-related, and perform additional hearing tests to verify.

### Standard Threshold Shift

A Standard Threshold Shift, or STS, is defined in the occupational noise exposure standard at 29 CFR 1910.95(g)(10)(i) as a change in hearing threshold, relative to the baseline audiogram for that employee, of an average of 10 decibels (dB) or more at 2000, 3000, and 4000 hertz (Hz) in one or both ears. In this case the STS must only be reported to the employee. Please refer to the example below.

Frequency (Hz)	Baseline (dB)	Current Audiogram (dB)	Difference (dB)
2000	10	20	10
3000	5	10	5
4000	15	30	15
Average	10	20	<b>10</b>

### STS & a 25-dB Overall Reduction in Hearing Level

If the employee has shown an STS you must then examine the employee's overall hearing ability in comparison to audiometric zero. Using the employee's current audiogram, average the hearing levels at 2000, 3000, and 4000 Hz to determine whether or not the employee's total hearing loss exceeds 25 dB from audiometric zero. In this case the STS must be reported to the employee **AND** recorded on the OSHA 300 log. Please refer to the example below.

Frequency (Hz)	Baseline (dB)	Current Audiogram (dB)	Difference (dB)
2000	20	30	10
3000	30	35	5
4000	10	25	15
Average	20	<b>30</b>	10

### Entering a Hearing Loss Case in the OSHA 300 Log

In 2003, employers should record cases of occupational hearing loss either as an "injury" (single event acoustic trauma) or "other illnesses" (long term noise exposure), as appropriate to the situation. Beginning on January 1, 2004, employers will record these cases in a separate column specifically designated for occupational hearing loss on the OSHA 300 log.