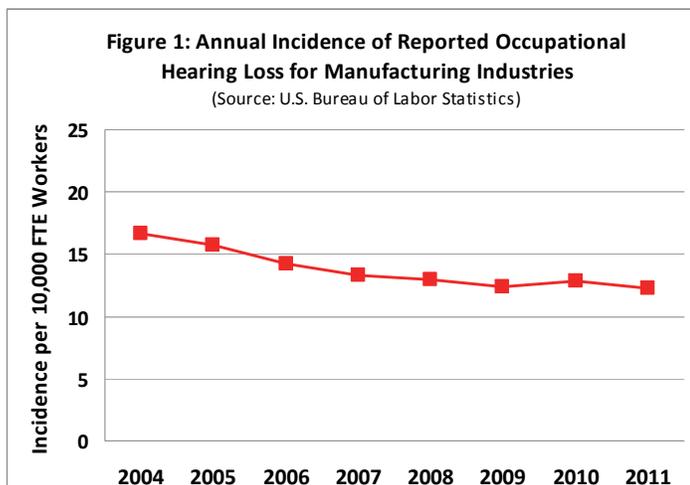




Recording Occupational Hearing Loss on the OSHA 300 Log

By: Susan Cooper, PhD, CCC-A

According to the U.S. Bureau of Labor Statistics (BLS), occupational hearing loss accounts for roughly 30% of work-related illnesses reported for the manufacturing sector. Although incidence rates have declined somewhat in recent years (Figure 1), it is estimated that roughly 14,000 manufacturing workers are affected annually. Incidence rates are highest in the manufacturing sector, but occupational hearing loss is also reported for an additional 12,000 individuals per year across other industries.



In the early 1980s, the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) promulgated regulations for preventing occupational hearing loss in general industry. OSHA's Noise Standard and Hearing Conservation Amendment, 1910.95, provides guidance for identifying potentially hazardous noise, implementing noise controls, selecting and fitting hearing protection devices, providing employee education, and monitoring success through annual audiometric evaluations and follow-up. Only much later, however, did OSHA clarify a formal system for tracking the annual incidence of occupational hearing loss (OHL). Current requirements appeared in a revision to OSHA's Recordkeeping Rule, 29 CFR 1904, in 2003. Following is a summary of OSHA's requirements for recording routine cases of OHL on the OSHA 300 Log. See the Example Protocol for suggested steps in determining recordable shifts in hearing.

Recording criterion. As part of a hearing conservation program (HCP), companies conduct baseline and annual audiometric testing for their noise-exposed workers. Based on results of this testing, employers must record cases of work-related hearing loss that meet the following criterion:

Standard Threshold Shift, or STS (an average change of 10 dB or more at 2000, 3000, and 4000 Hz in either ear, compared to baseline hearing test; age-adjustments allowed), **provided that** the employee's average hearing level at the same frequencies in the same ear is 25 dB HL or greater (regardless of employee's age).

It is important to note that STS as part of a HCP is designed to function as a "warning" or "flag" to follow-up with counseling, refitting/retraining hearing protection, engineering controls, and so on. In contrast, the OHL recording criterion is intended to represent an injury/illness, important for statistical/tracking purposes. This is why OSHA determined that employers need not record all cases of STS. Rather, recordable OHL cases represent only persistent shifts in hearing, co-occurring with hearing loss/impairment, and of course, only those that are work-related.

- **Baseline/reference audiogram.** To determine whether an STS has occurred, the employer must compare the current hearing test results to the employee's baseline audiogram. This comparison is made to the original baseline or when appropriate, a revised baseline according to existing hearing conservation program definitions under 1910.95. Although baseline revision decisions are made according to the professional judgment of the reviewing audiologist or physician, OSHA has clarified certain issues such as that baseline revisions must be conducted separately for each ear (OSHA, 2003a, 2005, 2007). The National Hearing Conservation Association has recently revised its best practices guideline for baseline review/management. This document serves as an excellent guideline for professional reviewers of hearing conservation programs (NHCA, 2013).
- **Retest/confirmation of STS and time-frame.** If the annual audiogram shows an STS, a hearing retest may be performed within 30 days of that test (multiple retests allowed, but not necessarily recommended). If the retest does not confirm the STS, then the case need not be recorded. If the retest confirms the STS, then the case, if work-related, must be recorded within seven calendar days of the retest. If a retest is not performed, then the case (again, if work-related) must be recorded within seven calendar days.
- **Results of subsequent testing.** If later audiometric testing performed as part of the hearing conservation program indicates that the STS is not persistent, then the employer may erase, or line-out, the recorded entry.
- **Determination of work-relatedness.** In the 1904.10 final rule, OSHA stressed the importance of case-by-case review, and stated that hearing loss work-relatedness must be determined according to specifications of section 1904.5. If an event/exposure in the workplace caused or contributed to the shift in hearing or "significantly aggravated" a previously existing hearing loss, then the case is recordable. The National Hearing Conservation Association has published guidelines to assist professional reviewers with determining work-relatedness (NHCA, 2011). Former CAOHC Council member Dr. Peter Rabinowitz published an article in *Update* outlining important steps in determining work-relatedness, as well as responsibilities of the OHC and the Professional Supervisor (Rabinowitz, 2005).
- **Forms.** OSHA's recordkeeping forms (300, 301, and 300A) designate a separate column for recording hearing loss as an illness.

- **State plans.** All state-run OSHA plans are required to follow the federal rule for recording OHL. In the states of Oregon and Washington, STS age-adjustments are allowable when calculating potentially recordable shifts in hearing. STS age-adjustments are not allowed in these states, however, for purposes of complying with state noise and hearing conservation program requirements.
- **Applicable industries.** Certain industries are not covered under the general industry hearing conservation amendment 1910.95 (construction, agriculture, oil and gas drilling, etc.), but these businesses are included under 1904. If such employers conduct audiometric testing programs, then the hearing loss recordability provisions of 1904.10 apply.

And a final note: It is important to remember that OSHA’s recordkeeping requirements in no way change a company’s obligation to maintain an effective hearing conservation program for their noise-exposed workers. In particular, all employees showing STS should continue to receive appropriate follow-up, whether the shift in hearing is recordable or not. Although compliance with recordkeeping rules is important to the ultimate goal of tracking incidence of work-related hearing loss across industries, employers should not allow recordkeeping concerns to detract from their hearing loss prevention efforts.

Example Protocol for Recording Occupational Hearing Loss on the OSHA 300 Log

If at any step a “no” is encountered, the process ends and the case is **not** recorded on the Log

Step 1	Compared to the baseline or revised baseline audiogram as defined by 1910.95, is there an STS in either ear (age adjustments allowed)? If yes, continue to step 2.
Step 2	Is the average hearing level on the current hearing test at 2000, 3000, and 4000 Hz in the same ear greater than or equal to 25 dB HL (no age adjustments)? If yes, continue to step 3.
Step 3	Is the STS confirmed upon retest within 30 days? If yes, continue to step 4. (<i>Note: if a retest was not conducted within 30 days, also continue to step 4.</i>)
Step 4	Has a qualified healthcare professional determined that the shift in hearing is more likely than not caused or aggravated by workplace noise? If yes, continue to step 5. (<i>Note: if the cause of the STS is not clear or not determined, then the employer should accept work-relatedness by default and continue to step 5.</i>)
Step 5	Record the case in the “hearing loss” column (M)(5) on Form 300 within 7 days of test or retest.

REFERENCES/ADDITIONAL READINGS:

OSHA regulations & interpretations, guidelines, and best practices

NHCA (2011). Guidelines for Recording Hearing Loss on the OSHA 300 Log, National Hearing Conservation Association, approved by the Executive Council on April 26, 2011. Available at www.hearingconservation.org.

NHCA (2013). Guidelines for Audiometric Baseline Revision, National Hearing Conservation Association, approved by the Executive Council on February 20, 2013. Available at www.hearingconservation.org.

OrOSHA (2012). Oregon Administrative Rules, Chapter 437, Division 1, Recordkeeping and Reporting, 437-001-0700 (11)(b): Occupational Hearing Loss Recording Criteria.

OSHA (2001). Occupational Injury and Illness Recordkeeping and Reporting Requirements, Occupational Safety and Health Administration, *Federal Register*, Vol. 66, Number 13, January 19, 2001.

OSHA (2001). OSHA Rule on Recordkeeping for Workplace Injuries to Go into Effect as Scheduled, Occupational Safety and Health Administration, National News Release USDL: 01-201, June 29, 2001.

OSHA (2001). Occupational Injury and Illness Recording and Reporting Requirements: proposed delay of effective date; request for comments, Occupational Safety and Health Administration, Docket No. R-02A, *Federal Register*, Vol. 66, Number 128, pages 35113-35115, July 3, 2001.

OSHA (2001). Occupational Injury and Illness Recordkeeping and Reporting Requirements, Occupational Safety and Health Administration, *Federal Register*, Vol. 66, Number 198, 52301-52304, October 12, 2001.

OSHA (2001). OSHA, National Association of Manufacturers Settle Differences on Recordkeeping Rule, Occupational Safety and Health Administration, Trade News Release, November 16, 2001.

OSHA (2002). Agency to Issue Final Rule on Recording Hearing Loss, Occupational Safety and Health Administration, Trade News Release, June 28, 2002.

OSHA (2002). Occupational Injury and Illness Recordkeeping and Reporting Requirements; Final Rule, Occupational Safety and Health Administration, *Federal Register*, Vol. 67, 44037-44048, July 1, 2002.

OSHA (2002). Occupational Injury and Illness Recordkeeping and Reporting Requirements; Proposed Delay of Effective Dates/Request for Comment, Occupational Safety and Health Administration, *Federal Register*, Vol. 67, 44124-44127, July 1, 2002.

OSHA (2002). OSHA Recordkeeping Form to Include Hearing Loss in 2004, Occupational Safety and Health Administration, Trade News Release, December 16, 2002.

OSHA (2002). Occupational Injury and Illness Recordkeeping and Reporting Requirements; Supplementary Information, Occupational Safety and Health Administration, *Federal Register*, Vol. 67, No. 242, 77165-77170, December 17, 2002.

OSHA (2003). Interpretation letter dated 5/8/03 from Richard E. Fairfax, Director, Directorate of Enforcement Programs to Linda Ballas, regarding audiogram baseline revision.

OSHA (2003). Interpretation letter dated 8/14/03 from Richard E. Fairfax, Director, Directorate of Enforcement Programs to Joan E. Piosa, regarding STS retests.

OSHA (2004). Interpretation letter dated 3/4/04 from Frank Frodyma, Acting Director, Directorate of Evaluation and Analysis, to Carl Sall, regarding timeframe for retests, line-outs, and application of 1904.10 to the construction industry.

OSHA (2005). Interpretation letter dated 9/9/05 from Richard E. Fairfax, Director, Directorate of Enforcement Programs to Laurie Wells, President of NHCA, regarding audiometric baseline revision.

OSHA (2007). Interpretation letter dated 8/29/07 from Keith Goddard, Director, Directorate of Evaluation and Analysis to Theresa Schulz, CAOHC Chair, regarding audiometric reviewer qualifications.

Rabinowitz, P. (2005). Determining when hearing loss is work related, *Update*, Council for Accreditation in Occupational Hearing Conservation, Vol. 17, issue 3.

WISHA (2007). Washington Chapter WAC 296-27-01113 Recording criteria for cases involving occupational hearing loss.

Background/Regulatory history (from CAOHC Update)

Megerson, Susan Cooper (2001). Update on hearing loss recordability: OSHA call for comments, *Update*, Council for Accreditation in Occupational Hearing Conservation, Vol. 13, Issue 2.

Megerson, Susan Cooper (2002). OSHA’s final rule for recording occupational hearing loss, *Update*, Council for Accreditation in Occupational Hearing Conservation, Vol. 14, issue 3.

Megerson, Susan Cooper (2003). Amendments to OSHA’s final rule for recording hearing loss, *Update*, Council for Accreditation in Occupational Hearing Conservation, Vol. 15, issue 1.

Susan Cooper is Hearing Conservation and Regulatory Liaison for CavCom, Inc. She has over twenty years experience as a consultant in occupational hearing conservation and as a CAOHC Course Director. Susan is an ASHA-certified audiologist, former president of the National Hearing Conservation Association and former chair of CAOHC. She may be reached at susanc@cavcominc.com.