

SUBJECT: Noise Audiogram Evaluation

Purpose: To provide guidelines for evaluating audiogram and to clarify when hearing loss must be recorded on the OSHA 300 log.

Scope: This instruction applies Division-wide.

Cancellation: This instruction supersedes STD 5-4.1A, dated January 7, 2010

Background: 29 CFR 1904.10 requires that the employer maintain a log of all recordable injuries and illnesses. This document clarifies when a hearing loss needs to be recorded on the OSHA 300 log.

Hearing loss is measured through the comparison of an annual audiogram and a baseline audiogram. Results are compared to audiometric zero, the hearing threshold considered normal for humans. Any result above zero (0) at any frequency means that individual needs the source to be that much louder in order to be heard; therefore, a hearing loss has occurred. Under the OSHA Noise standard, an employee is considered to have a standard threshold shift (STS) if there is a change in the hearing threshold relative to the baseline audiogram of an average of 10 decibels (dB) or more at 2000, 3000, 4000 Hertz in either ear. The occurrence of a STS requires written employee notification of the STS and triggers a follow-up medical evaluation and training. A baseline audiogram may be revised if a STS of 10 dB or more is persistent or if an annual audiogram indicates an improvement in the hearing threshold.

To determine whether a recordable hearing loss has occurred, the annual audiogram must also be compared to audiometric zero. An STS must exist and the average loss (at 2000, 3000, 4000 Hz) compared to audiometric zero must equal or exceed 25 dB. Unless a physician or other licensed health care professional determines that the hearing loss is not work related or aggravated by the workplace noise exposure, it must be recorded on the OSHA 300 log, even if a workers' compensation claim was not filed.

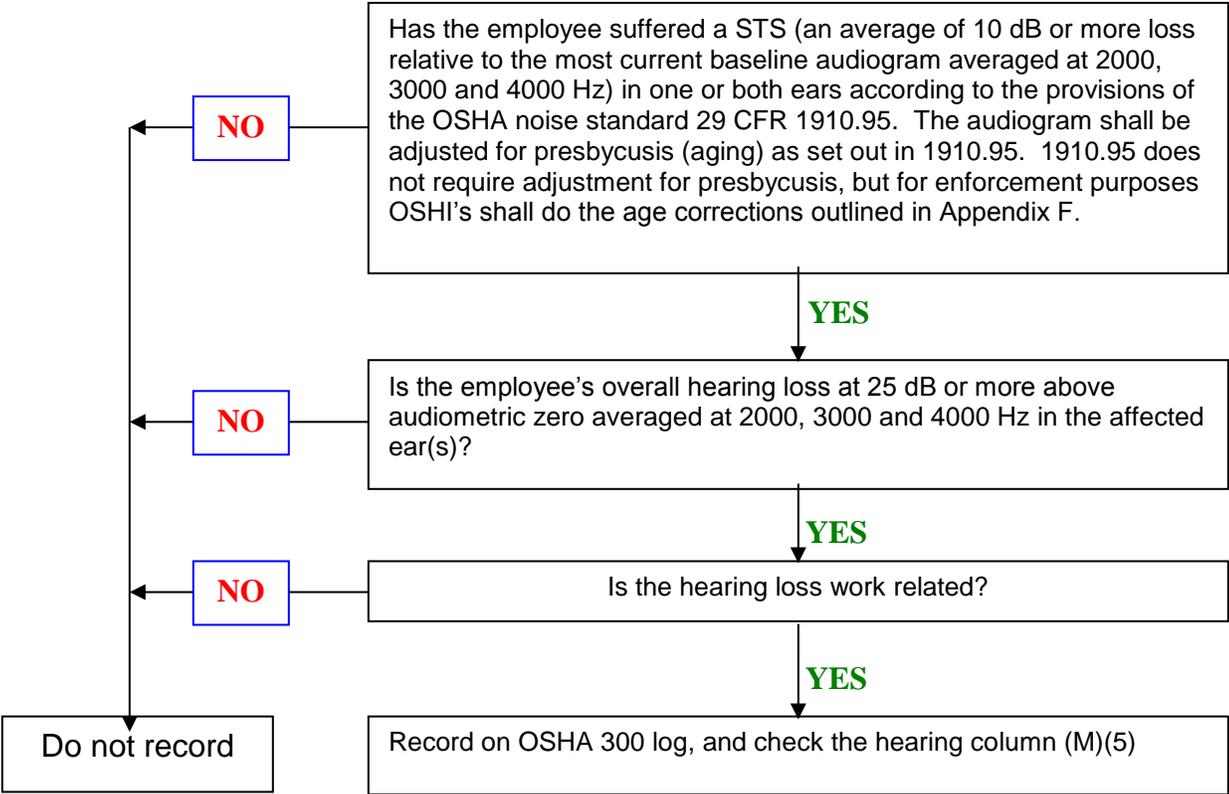
General industry standard 1910.95 covers occupational noise exposure and the conduct of audiometric testing. The intent of this policy is not to provide comprehensive noise citation guidelines, but to clarify section 1910.95(g) as it relates to audiometric decision-making and record keeping.

ACTION:

- A. The Hearing Loss Recording Decision Flow Chart (Figure 1) will be used to determine if hearing loss at 2000, 3000, or 4000 Hertz in each ear is recorded on the OSHA 300 log.

Figure 1

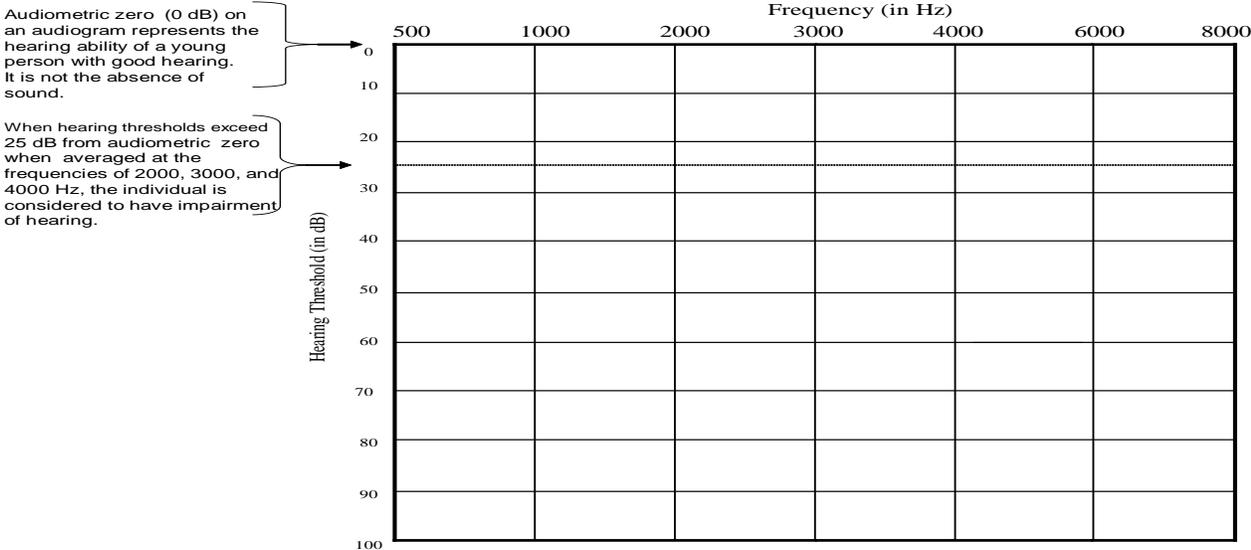
HEARING LOSS RECORDING DECISION FLOW CHART



Note: In all cases, use the most current baseline to calculate a STS under the hearing conservation provisions of the noise standard (29 CFR 1910.95). If an STS occurs in only one ear, you may only revise the baseline audiogram for that ear.

Sample audiogram results are given below to show how a STS is calculated:

Audiogram Chart



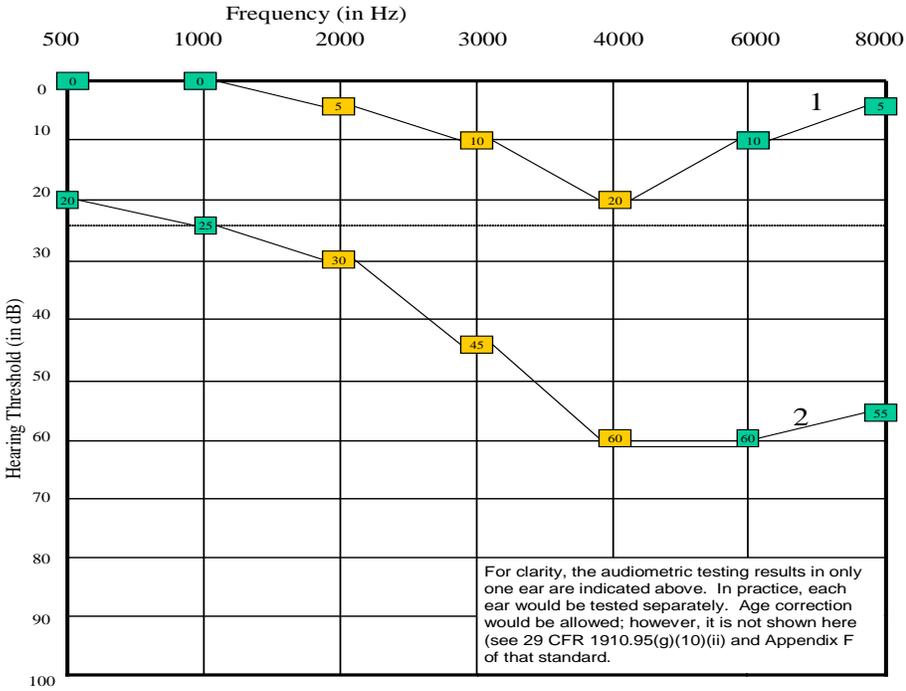
EXAMPLE 1: Audiograms and Recordability of Hearing Losses on the OSHA 300 Log

1 – Original Baseline Audiogram taken on employee when first entering the employer’s HCP.

2 – Employee’s annual audiogram. The change in hearing thresholds when compared to the original baseline audiogram averaged at the frequencies of 2000, 3000, and 4000 Hz are:

$$[(30-5)+(45-10)+(60-20)] \div 3 = 33.3$$

The above change is > 25 (45) dB compared with audiometric zero and also > 10(33.3) dB compared with the baseline, therefore hearing loss is **recordable** on the company’s OSHA 300 form

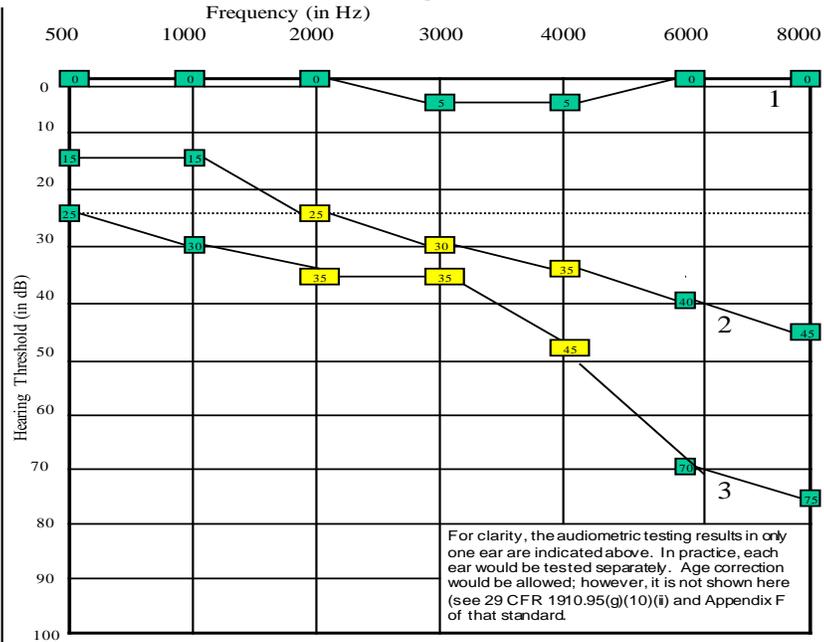


EXAMPLE 2: Audiograms and Recordability of Hearing Losses on the OSHA 300 Log

1 – Original Baseline Audiogram taken on employee when first entering the employer’s HCP.

2 – Employee’s annual audiogram where the first recordable hearing loss is noted on the OSHA300 Form. Future audiograms are to be compared to this annual audiogram or the revised baseline instead of the original baseline audiogram.

3 – Employee’s annual audiogram after revising the baseline. Note that while the audiometric zero averaged over 2, 3, 4K is > 25 dB, the STS based on the revised baseline is < 10 dB and therefore this hearing loss is **not recordable** on the OSHA 300 form



B. In accordance with 29 CFR 1910.95(m), audiometric test records shall be retained for the duration of the employee’s employment, while the noise *exposure* measurement records shall be retained for two years.

C. “Common questions and answers about audiograms” are given in appendix A

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For the OSHA Management Team

Distribution: OSHA Compliance and WSC Director

Attachments: Appendix A, “Common questions and answers about audiograms”

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Appendix A

Common questions about audiograms and their answers:

1. Should the employer expect the local clinic to know about the OSHA noise standard and what is required under the standard?
ans. No, most clinics and local hospitals do not know what the OSHA standard requires and do not have a copy of it.
2. Can most clinics perform an audiogram on workers which meets the OSHA standard?
ans. Yes, if they are given a copy of the standard and told to follow the standard.
3. If a worker has a STS does it mean that the worker has hearing loss and can receive compensation for it?
ans. No, workers compensation uses a system of compensation for hearing loss which is totally different than the criteria in the OSHA standard. The OSHA standard is trying to prevent disabling hearing loss in workers by early intervention, not compensate them for hearing loss.
4. If a worker has a STS does it mean that the worker has a noise induced hearing loss and that workplace noise caused it?
ans. Not necessarily, many STS can be caused by other factors such as ear infections, colds, off the job noise exposure, etc.
5. If a worker has a STS does it mean that the worker has a permanent hearing loss?
ans. Not necessarily, many people can recover this hearing loss because it was a noise induced temporary shift or caused by a temporary physical condition.
6. If a worker has a STS, must the employer retest the worker within 30 days?
ans. No, a second audiogram is optional.
7. If a worker has a STS, must the employer send the worker for an Otological examination?
ans. No, this more comprehensive examination is not always required and is at the discretion of the expert reviewing the problem audiograms.
8. If a worker has a STS, must the employer send the worker for an Otological examination if the worker requests it?
ans. No, but the worker must be told where such an examination is available.

9. If a worker has a STS and goes at his/her own expense and has an Otological examination (and the examination indicates that the loss is noise induced), can the worker require the company to pay for the examination?
- ans. The standard does not address this issue. The worker should consult with workers compensation.
10. Are employers required to pay workers for the time it takes to have the hearing tests?
- ans. The standard does not address this issue. In Minnesota employers are required to pay workers for this time.
11. Does a technician administering audiometric tests have to be certified?
- ans. Yes, unless the technician operates a microprocessor-type audiometer. All certified technicians and technicians who operate microprocessor-type audiometers must be under the direction of an audiologist, otolaryngologist or physician.
12. What does an audiogram look like?
- ans. Sample audiograms are shown on pages 3 and 4.