Hearing Conservation: Noise Survey Guidelines

Department: Chemical and General Safety
Program: Hearing Conservation
Owner: Program Manager, John Shepardson
Authority: ES&H Manual, Chapter 18, Hearing Conservation

The hearing conservation program manager must perform baseline noise surveys and periodic resurveys of work areas and operations as needed to identify and evaluate high noise areas and activities. Surveys may include sound level measurement in the general work area as well as personal noise dosimetry.

Noise surveys may occur as a result of

- Individuals or managers submitting a request to the hearing conservation program manager
- Design review processes
- Regulatory requirements, SLAC policy, or agreements with the DOE

Types of Monitoring

Personal Noise Dosimetry
Industrial hygienists use noise dosimetry to measure personnel exposure to noise levels through the work day. Noise levels surrounding the individual are measured and recorded over an eight-hour period (or for the full work shift). The industrial hygienist also observes and records general information about personnel work processes.

Area Noise Level Monitoring
Industrial hygienists measure and record noise levels in a general work area to determine the extent of noise exposure or to measure the effectiveness of engineering controls applied to a machine (such as dampeners, insulation, isolation, distance). The noise level meter is placed in a fixed location in the work area or near the source of the noise.

Obtaining Noise Surveys
Noise surveys may take place as a result of the following.

Individual Requests
Personnel at SLAC should discuss noise level concerns with their supervisors, then contact the hearing conservation program manager to request monitoring.

The requestor or area manager must notify the hearing conservation program manager when there are changes in production, process, equipment or controls that increase noise exposures. The hearing conservation program manager arranges for evaluation and monitoring of the work environment based on the proposed use of and associated noise produced by the equipment or process.

To request a noise survey, contact the hearing conservation program manager.
Design Review
When new projects at SLAC are reviewed, the design review coordinator forwards packages involving machinery and other high noise-producing equipment to the hearing conservation program manager for evaluation. The program manager identifies any areas of concern, provides comments and recommendations for safe use, and may require noise level monitoring before equipment is used by personnel.

DOE-required Monitoring
The standards for occupational noise exposure adopted by the DOE state that personnel without hearing protection must not be exposed to an intensity of noise exceeding 85 dBA based on an eight-hour time-weighted average (TWA) as measured on the A-weighted scale. Noise level monitoring is necessary to identify designated noise areas and to determine which personnel are affected by the hearing conservation program (see Hearing Conservation: Hazard Recognition Requirements\(^1\)).

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