

Chapter 18: [Hearing Conservation](#)

## Noise Survey Requirements

Product ID: [712](#) | Revision ID: 2440 | Date published: 5 August 2021 | Date effective: 5 August 2021

URL: <https://www-group.slac.stanford.edu/esh/eshmanual/references/hearingReqSurvey.pdf>

### 1 Purpose

The purpose of these requirements is to protect personnel from hearing loss caused by occupational exposure to excessive noise. They cover noise surveys. They apply to supervisors and the hearing conservation program manager.

### 2 Requirements

#### 2.1 General

The hearing conservation program manager performs baseline noise surveys and periodic resurveys of work areas and operations as needed to identify and evaluate high noise areas and activities.

The results of the surveys are used to implement controls, including designating *high noise areas*, requiring the use of *hearing protection* personal protective equipment (PPE), and requiring training and medical surveillance (that is, enrolling personnel in the hearing conservation program). (See [Hearing Conservation: Hazard Analysis and Control Procedures](#).)

Surveys may include sound level measurement in the general work area as well as personal *noise dosimetry*.

Surveys may be performed by a qualified technician, but the process must be overseen by an ESH Division industrial hygienist.

The hearing conservation program manager conducts monitoring according to guidelines published by the American Conference of Governmental Industrial Hygienists (ACGIH), Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) ([ACGIH TLVs and BEIs](#)) with equipment maintained and calibrated according to manufacturers' recommendations.

#### 2.2 Personal Noise Dosimetry

Personal noise dosimetry is used to measure exposure of individuals 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). General information about work processes is also observed and recorded.

The hearing conservation program manager then develops a personal notification memo detailing the results of the dosimetry and sends it in a timely manner to the affected persons.

## 2.3 Area Noise Level Monitoring

Noise levels in a general work area are measured and recorded 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 survey is conducted by placing a sound level meter in a fixed location in the work area or near the source of the noise.

After performing the survey, the hearing conservation program manager must write a detailed report that

- Describes the tasks and locations where the noise survey occurred
- Identifies workers monitored or represented by the survey
- Describes control measures in place during the survey (including the use of hearing protectors)
- Notes any factors that may have affected noise data recorded (if applicable)
- Provides an interpretation of the results

If applicable, recommendations to reduce potential or actual exposures and requirements for completing training and medical surveillance will be included in the report.

The hearing conservation program manager sends the report to the supervisor of the area. The supervisor is responsible for distributing the report to affected personnel in a timely manner.

## 2.4 Noise Survey Equipment

Noise survey equipment must be maintained, serviced, and calibrated according to manufacturer recommendations. Equipment must be sent out for factory service and calibration at a frequency established by the manufacturer. Dosimeters and *sound level meters* are also checked for accurate calibration on-site by the industrial hygienist or technician before and after each use.

The equipment must be marked with a sticker or tag indicating the most recent calibration date or the date when calibration is due again. Before- and after-use calibrations by the hearing conservation program manager need not be marked on the unit.

Equipment that is broken, inaccurate, or past-due for calibration may not be used until repaired or recalibrated.

Equipment must be properly stored in a secured, clean location, away from light, dust, and other contaminants.

## 3 Forms

The following forms and systems are required by these requirements:

- [Industrial Hygiene Document Database](#). Database of SLAC industrial hygiene reports

## 4 Recordkeeping

The following recordkeeping requirements apply for these requirements:

- The hearing conservation program manager maintains paper copies of noise survey reports and personal notification memos for a minimum of two years (and electronic versions in the [Industrial Hygiene Document Database](#)).
- The hearing conservation program manager maintains an equipment calibration inventory, identifying all hearing conservation program-owned noise survey equipment, the date of most recent calibration, and the next calibration due date.

## 5 References

[SLAC Environment, Safety, and Health Manual](#) (SLAC-I-720-0A29Z-001)

- [Chapter 18, “Hearing Conservation”](#)
  - [Hearing Conservation: Hazard Analysis and Control Procedures](#) (SLAC-I-730-0A09C-013). Describes processes for identifying and evaluating noise hazards and implementing controls
  - [Hearing Conservation: Designated High Noise Area List](#). Lists designated high noise level areas
  - [Hearing Conservation Program Site](#) (SharePoint)

Other SLAC Documents

- [Industrial Hygiene Program](#)

Other Documents

- Title 8, *California Code of Regulations*, “Industrial Relations”, Division 1, “Department of Industrial Relations”, Chapter 3.2, “California Occupational Safety and Health Regulations (Cal/OSHA)”, Subchapter 7, “General Industry Safety Orders”, Group 15, “Occupational Noise”, Article 105, “Control of Noise Exposure” ([8 CCR 5095–5100](#))
- American Conference of Governmental Industrial Hygienists (ACGIH). Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs) ([ACGIH TLVs and BEIs](#))