



ENVIRONMENTAL HEALTH & SAFETY

Hearing Conservation Program

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ACRONYMS & DEFINITIONS

Action Level	The level of noise, averaged over an 8-hour workday that initiates the requirements of this program. 85 dBA is the action level for this program.
Attenuation	<p>The reduction of noise intensity that is provided by hearing protection. This is determined using the Noise Reduction Rating (NRR) listed on the hearing protection in the following equation:</p> $(NRR-7)/2 = \text{decibel reduction}$ <p>This number is subtracted from the measured sound levels. The resulting number must be less than 90 decibels.</p>
Audiogram	A chart, graph, or table resulting from an audiometric test showing an individual's hearing threshold levels as a function of frequency.
dB	Decibel - A unit of noise measurement
dBA	A-weighted decibels. The relative loudness of sounds in air as perceived by the human ear.
EHS	Environmental Health and Safety
EOHS	Employee Occupational Health Services
FM	Facilities Management
Noise Dosimeter	An instrument that integrates a function of sound pressure over a period of time in such a manner that it directly indicates a noise dose.
OSHA	Occupational Safety & Health Administration
Sound Level Meter	An instrument for the measurement of sound level.
Standard Threshold Shift	A change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000 and 4000 Hertz in either ear.
Time-weighted Average	The average of the noise levels measured during the time sampled, usually eight (8) hours.
UNM	The University of New Mexico

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1. PURPOSE

This program was developed to ensure the safety and health of University employees whose work may expose them to hazardous noise levels. It is the intent of UNM to ensure that noise exposures on the job do not adversely affect the employee's hearing.

2. SCOPE

In accordance with 29 CFR 1910.95, all employees that may be exposed to 85 dBA or greater based upon an eight (8) hour time-weighted average, as determined by noise monitoring, must participate in the Hearing Conservation Program.

3. RESPONSIBILITIES

3.1. Environmental Health & Safety (EHS):

1. Developing and implementing the Hearing Conservation Program at the University of New Mexico;
2. Monitoring compliance with the OSHA Standard, [29 CFR 1910.95](#);
3. Providing general hearing conservation training;
4. Conduction noise exposure assessments and evaluating exposure control measures as necessary
5. Maintaining employee exposure records.

3.2. Employee Occupational Health Services (EOHS):

1. Conducting baseline and annual audiograms
2. Maintaining audiometric test records
3. Properly implementing all requirements of [29 CFR 1910.95 paragraphs \(g\) and \(h\)](#)
4. Informing employee(s) if audiogram shows a standard threshold shift;
5. Notifying EHS if standard threshold shift may be caused by occupational exposure.

3.3. Deans, Directors and Department Heads:

1. Ensuring departmental compliance with all of the procedures outlined in this program.

3.4. Supervisors:

1. Identifying potentially hazardous noise locations and operations and contact EHS for evaluations.
2. Ensuring compliance with this program in their respective work area.
3. Providing hearing protection for employees required to participate in this program.
4. Providing training in the use and care of all hearing protectors provided to employees.
5. Ensuring proper initial fitting.
6. Supervising the correct use of all hearing protectors.

7. Coordinating the provision of medical examinations, exposure monitoring and recordkeeping, as required.

3.5. Employees:

1. Knowing the provisions of the Hearing Conservation Program.
2. Assisting the supervisor in identifying potentially hazardous noise locations or operations which they may be exposed.
3. Wearing hearing protection when required and provided.
4. Participating in Annual Hearing Conservation Training.

4. PERMISSIBLE EXPOSURE LIMITS

Permissible Exposure Limits shall be calculated in accordance with [29 CFR 1910.95\(b\)\(2\) Table G-16](#). Hearing protection controls (engineering controls, administrative controls, or PPE) shall be provided when the sound levels exceed those listed in Table 1 below and must reduce the sound exposure below the Permissible Noise Exposure level:

**Table 1. Permissible Noise Exposures
Copied from 29 CFR 1910.95 Table G-16**

Hours per day	Sound Level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25 or less	115

Footnote(1) When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. If the sum of the following fractions: $C(1)/T(1) + C(2)/T(2) + C(n)/T(n)$ exceeds unity, then, the mixed exposure should be considered to exceed the limit value. C_n indicates the total time of exposure at a

specified noise level, and Tn indicates the total time of exposure permitted at that level. Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.

5. EMPLOYEE NOISE EXPOSURE ASSESSMENT

EHS will conduct sound level surveys in areas or during tasks suspected of exceeding the action level, or during tasks and/or in areas identified by employee complaints which may be attributed to noise exposure.

1. Where circumstances such as high worker mobility, significant variations in sound level, or a significant component of impulse noise make area monitoring generally inappropriate, representative personal sampling shall be utilized, unless area sampling can produce equivalent results.
2. If information indicates that employee exposures may equal or exceed the action level, EHS will conduct personal sampling to assess employee exposures. All employees that perform the task or work in the area with noise potentially above the action level will be notified and enrolled in this program.
3. This monitoring will be repeated whenever a change in production, process, equipment or controls increases noise exposure to the extent that additional employees may be exposed above the action level or the attenuation provided by the hearing protection used may be rendered inadequate.
4. All monitoring can be observed by effected employees or their representative.
5. More information about noise monitoring can be found in [Appendix G of OSHA 29 CFR 1910.95](#)

6. AUDIOGRAMS

All employees participating in this program will receive a baseline audiogram at no cost within six (6) months of their start date and annually thereafter. Audiograms will be performed by EOHS.

1. EOHS is responsible for properly implementing all requirements of [29 CFR 1910.95 paragraphs \(g\) and \(h\)](#).
2. If an employee audiogram shows a standard threshold shift, they will be informed in writing within twenty-one (21) days. If it is believed to be work-related, EHS will investigate the work area and employees will be provided or refitted with hearing protection and/or other control measures will be implemented as necessary.

7. REDUCING EMPLOYEE EXPOSURE TO NOISE

When possible, engineering controls or administrative controls will be used to reduce employee exposure to noise in a work area.

Supervisors will provide all employees that are exposed to noise above the action level with hearing protection. Hearing protection will be provided at no cost to the employee, including replacement as necessary. Employees will be given the opportunity to select from a variety of hearing protectors. EHS can provide supervisors with information on the appropriate hearing protection based on the noise levels in the work area.

Supervisors shall ensure that hearing protectors are worn:

1. By an employee who is required to wear hearing protection based on the table in section 4; and
2. By any employee who is exposed to an 8-hour time-weighted average of 85dB or greater, and who
 - a. Has not yet had a baseline audiogram established; or
 - b. Has experienced a standard threshold shift.

8. EMPLOYEE INFORMATION AND TRAINING

Every employee required to participate in this program will receive annual Hearing Conservation training. This training is provided by EHS on Learning Central and includes the following:

1. Requirements of the OSHA Standard;
2. Explanation of UNM's Hearing Conservation Program;
3. The effects of noise on hearing;
4. The purpose of hearing protection, advantages/disadvantages and attenuation of the different types;
5. Instructions on the selection, fitting, use and care of hearing protection; and
6. The purpose of audiometric testing.

In addition, employees must be provided with area-specific on-the-job training. This training is to be conducted by the supervisor, with the assistance of EHS, and will inform employees of:

1. The location of UNM's Hearing Conservation Program;
2. Types of hearing protection available in the work area;
3. Specific procedures or areas that require hearing protection; and
4. The engineering and/or administrative controls used in the work area to reduce noise exposures.

Area-specific training will be conducted whenever a new noise hazard is introduced into the work area, when the employee transfers to another job, and whenever the employee demonstrates behavior that indicates a lack of understanding of the requirements of this program.

All training must be documented by the individual presenting the training session and a copy of the training records will be submitted to EHS.

9. SIGNS

"Hearing Protection Required" signs will be posted in areas with noise levels above 85 dBA. 85 decibels A-weighted (dBA), averaged over an eight-hour period, is the NIOSH Recommended Exposure Limit (REL). Signs can be fabricated at the FM Sign Shop.












Hearing Conservation R0.4

Final Audit Report

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