



Hearing Conservation

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Purpose

It is the intent of New College of Florida (NCF) to provide every employee with a safe and healthful working environment. The administration at NCF feels that any faculty or staff members who, during the course of their employment activities, are exposed to noise greater than 85 decibels on the A scale (dBA) should be protected. Prevention of occupational hearing loss is the primary employee benefit from the Hearing Conservation Program (HCP). The HCP will also help to conserve the hearing ability of those workers who have been evaluated as having a noise-induced hearing loss.

Definitions

Action Level - An 8 hour time-weighted average (TWA) of 85 decibels measured on the A-scale (dBA), slow response, or equivalently, a dose of 50 percent.

Audiogram - A chart, graph, or table resulting from an audiometric test showing an individual's hearing threshold levels as a function of frequency.

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.

Attenuate - To reduce or weaken.

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.

Responsibility

Environmental Health & Safety

- This manual has been developed by the Department of Environmental Health & Safety (EH&S). EH&S is charged with the following:

- Administering the Program for NCF and for reviewing the Program on an annual basis to ensure its effectiveness.
- Conduct noise monitoring upon request from the individual departments that are concerned with loud noises in their units.
- Training will be provided or contracted by EH&S.
- Assist departments in choosing and fitting hearing protection devices.
- Recordkeeping.
- Coordinate with local Audiologist for to provide services to NCF.

Individual Departments

- Identify potential areas of concern. EH&S will then monitor to determine which work areas or procedures require participation in the Hearing Conservation Program.
- At no cost to the employee, provide at-risk individuals with baseline audiograms and annual audiogram follow-ups.
- At no cost to the employee, provide a choice of hearing protection devices (earplug or earmuff) and ensure that they are being worn.
- Budget for annual hearing tests and hearing protection.

Hearing Conservation Program

When EH&S determines that an employee is exposed to noise equal to or greater than an 8 hour time weighted average (TWA) of 85 dBA (slow response) or, equivalently, a dose of 50 percent, the employee's department shall institute the Hearing Conservation Program.

The preferred method of hearing conservation is to control noise at its source through changes in machinery or equipment, changes in manual or mechanical materials handling, installing controls on vibrating surfaces, enclosing machinery, dampening with absorbents, insulating rooms, administrative controls, or other engineering controls.

The key elements to an effective Hearing Conservation Program are:

- Noise exposure measurements
- Engineering and administrative noise exposure control
- Personal hearing protection
- Baseline and annual audiograms
- Training

Noise Exposure Monitoring

The supervisor is responsible for identifying potentially harmful noise levels at the work site. The supervisor may suspect potentially harmful noise levels when noise at the work site routinely interferes with verbal communication; when noise routinely startles, annoys, or disrupts an employee's concentration; or when it is the suspected cause of noticeable hearing loss or pain.

When the supervisor suspects harmful noise levels, s/he must contact EH&S. EH&S will then measure the noise level at the work environment.

When information indicates that any employee's noise exposure may equal or exceed an 8 hour TWA of 85 dBA, monitoring will be conducted to document the exposure and decide whether or not the employee is to be included in the HCP.

Representative sampling may be conducted to assure that all affected employees who need to be included in the HCP are identified. The monitoring will be conducted using area noise meters or personal noise dosimeters, as appropriate.

Monitoring will be repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that:

- Additional employees may be exposed at or above the action level, or
- The attenuation provided by hearing protectors being used by employees may be rendered inadequate.

Employees who are exposed at or above an 8 hour TWA of 85 dBA will be notified of the results in writing.

Each employee or their representative shall be given the opportunity to observe any noise measurements as they are being conducted.

All continuous, intermittent and impulsive sound levels from 80 dB to 130 dB will be integrated into the noise measurements.

Permissible Noise Exposures	
Duration per day, hours	Sound level, dBA, slow response
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25 or less	115

Audiometric Testing Program

All employees that are exposed to a TWA of 85 dBA or greater will be included in the audiometric testing program. This consists of a baseline audiogram and annual audiograms thereafter.

The audiometric testing program will be conducted by a NCF Contract clinic. Audiometric tests and evaluations shall be conducted by a qualified physician, otolaryngologist, audiologist, or a certified technician.

Each annual audiogram will be evaluated by the Clinic to determine if a standard threshold shift has occurred. If a standard threshold shift has occurred, a retest will be given within 30 days. The audiograms will be reviewed and a determination will be made whether there is a need for further evaluation, or recommendations will be made.

Hearing Protectors

Hearing protectors shall be worn by any employee who is exposed to an 8 hour TWA of 85 dBA or greater and who:

- Has not yet had a baseline audiogram.
- Has experienced a standard threshold shift.

Hearing protectors shall also be worn by any employee (or visitor) who enters an area where hearing protectors are required.

Employees shall be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors provided by their department.

Hearing protectors chosen for use in the HCP will provide attenuation of noise to less than 85 dBA (if fitted and worn properly).

Each department shall ensure proper initial fitting and correct use. Supervisors shall enforce the wearing of hearing protectors.

Training

Any employee who is exposed to noise at or above an 8 hour TWA of 85 dBA shall be trained. Training will be provided annually. Information provided in the annual training program will be updated to be consistent with changes in protection devices and work processes.

The training will include, but is not limited to, the following:

- The effects of noise on hearing.
- The purpose of hearing protectors, the advantages, disadvantages, attenuation of various types, and instructions on selection, fitting (hands-on), use, and care.
- The purpose of audiometric testing, and an explanation of the test procedures.

Recordkeeping

EH&S will retain noise exposure measurements for at least 2 years.

EH&S will retain employee training records for the duration of the employee's employment.

EH&S will retain audiometric test records for the duration of the employee's employment.

Affected employees are encouraged to keep their own records.

References

1. Occupational Safety and Health Administration (OSHA) 29 CFR 1910.95-1995, Occupational Noise Exposure