

TO: ALL COUNTY PERSONNEL
FROM: VERDENIA C. BAKER
COUNTY ADMINISTRATOR
PREPARED BY: RISK MANAGEMENT
SUBJECT: HEARING CONSERVATION PROGRAM (HCP)
PPM#: CW-P-078

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<u>ISSUE DATE</u>	<u>EFFECTIVE DATE</u>
August 1, 2024	August 1, 2024

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PURPOSE:

The purpose of this HCP is to minimize occupational noise-induced hearing loss for Palm Beach County employees.

UPDATES:

Future updates to this PPM are the responsibility of the Director of Risk Management.

AUTHORITY:

- Occupational Safety and Health Administration (OSHA) 29 CFR 1910.95, Subpart G - Occupational Noise Exposure, as may be amended
- Florida Statutes, Chapter 440, Florida Workers' Compensation, as may be amended
- PPM # CW-O-005 Safety Policy, as may be amended

DEFINITIONS:

For definitions, see Attachment A.

POLICY:

It is the policy of the Palm Beach County Board of County Commissioners that the HCP ensures that the worker is not over-exposed to and is protected from the damaging effects of occupational noise. Exposure to occupational noise hazards will be controlled as far as feasible by the use of engineering controls such as sound dampening, isolation, and Personal Protective Equipment (PPE), etc. Engineering controls shall bring the sound level as close as possible to 85dBA or

lower. Hearing Protection Devices (HPDs) will be available from the purchasing warehouse and shall be provided by the employee's department.

RESPONSIBILITIES:

1. Department/Division Directors shall:

- a. Ensure that supervisors and employees are held accountable for implementation of this program.
- b. Ensure that time is made available for supervisors and employees to receive training and audiograms as applicable.
- c. Address recommendations made to implement engineering controls.

2. Supervisors shall:

- a. Ensure that engineering controls, when available, are used to protect employees.
- b. Ensure that equipment and machinery are properly maintained and serviced in order to keep noise levels as low as possible.
- c. Ensure that appropriate HPDs are available for employees and visitors and that employees use and maintain HPDs in accordance with manufacturer's instructions and this PPM.
- d. Ensure that employees receive annual Hearing Conservation training and audiograms (as applicable).
- e. Ensure that employees are not engaged in noisy work and/or are provided with hearing protection devices for the 14 hours prior to baseline audiometric testing (as required by OSHA 1910.95(g)(5)(iii).
- f. Contact Employee Safety/Loss Control (ES/LC) to evaluate work environments, work practices, and processes.
- g. Have signs posted that designate noise areas and the required use of HPDs, to include the appropriate.

3. Employees shall:

- a. Participate in the HCP and correctly wear appropriate HPDs when it is a requirement of the job when noise levels are at 85 dBA or above.
- b. Adhere to the procedures of the HCP.

- c. Attend annual training and audiometric testing, (as applicable).
- d. Avoid non-industrial noise exposure, at least 14 hours prior to audiometric exams (OSHA 1910.95(g)(5)(4)).
- e. Inspect, clean, maintain, or dispose of HPDs as appropriate for the type of HPD ,per manufacturer's instructions.
- f. Properly use available engineering controls when practical, and appropriate for the job tasks.
- g. Notify supervision when there is a change in process, when dBA levels have noticeably changed, or when equipment needs repair.

4. PBC Occupational Health Clinic shall:

- a. Administer baseline audiograms for new and existing employees who will participate or have been determined eligible to participate in the Hearing Conservation program.
- b. Conduct annual audiometric screenings for employees who have been unable to obtain audiograms from the contracted service provider.
- c. Maintain audiograms as part of the employee's medical record.
- d. Forward a copy of any audiogram to ES/LC for determination of HCP inclusion.
- e. Notify employee, ES/LC, and supervision when an employee has an occupational Standard Threshold Shift (STS) or significant hearing loss.
- f. Refer employee identified by the contract vendor for follow-up for audiometric testing and medical examination.
- g. Maintain and use audiometers as recommended and ensure that:
 - i. daily biological calibrations are performed
 - ii. audiometers are calibrated annually

5. ES/LC shall:

- a. Have overall responsibility for the planning and managing of the County's HCP.
- b. Conduct initial and periodic worksite evaluations to determine the occupational noise hazards present and reassess worksite evaluations as requested.

- c. Determine if engineering controls are feasible to control occupational noise and make recommendations to Management.
- d. Determine the type of HPD required to reduce noise levels as close to 85 dBA as possible, based on hazard evaluations and noise hazards to which employees may be over exposed.
- e. Authorize the specific types of HPDs used by PBC.
- f. Determine which job tasks require the use of HPDs.
- g. Determine and notify supervision and employees whose 8-hour Time-Weighted Average (TWA) noise exposure levels exceed 85 dBA and that they will participate in the HCP.
- h. Conduct/coordinate annual training and audiograms for HCP participants.
- i. Provide annual audiogram results and explanation to the employee.
- j. Ensure that employees with a STS or significant hearing loss have been trained, are wearing appropriate HPDs and have been referred to the PBC Occupational Health Clinic for follow-up.

PROCEDURES:

1. Noise Hazard Identification:

- a. Personal noise dosimetry and area noise monitoring shall be conducted/coordinated by ES/LC to identify areas and job tasks that could be a potential occupational noise exposure risk.
- b. Monitoring shall 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 the HPDs being used by employees may be rendered inadequate.
- c. Engineering controls shall be used to reduce occupational noise levels at or below 85 dBA.
- d. Administrative controls shall be used to limit an employee's exposure time to occupational noise when engineering controls and/or HPDs fail to mitigate an employee's over-exposure to occupational noise.
- e. Based on noise monitoring results, to be used as a representative sample for similar job tasks, equipment and working conditions, employees will be selected for inclusion in the HCP.

- f. Employees exposed at or above the action level of 85 dBA as a TWA shall be notified of the results of the noise monitoring.

2. Hearing Protection Devices:

- a. Based on noise monitoring results, to be used as a representative sample for similar job tasks, equipment, and working conditions, HPDs shall be selected that will reduce noise levels at or below 85 dBA, if possible.
- b. To ensure that HPDs selected offer adequate attenuation for the job task and equipment, ES/LC will determine the types of HPDs to be used.
- c. Any person entering a noise area designated either by signage or verbal direction shall use appropriate HPDs. This shall include employees in the HCP, employees not in the HCP, and/or any contractors and visitors within the hazard area.
- d. Double hearing protection (wearing both earplugs and earmuffs) shall be used for noise exposures that exceed an average of 100 dBA over an 8-hour period.

3. Audiometric Testing:

- a. The Audiometric Testing Program shall be managed by ES/LC and the PBC Occupational Health Clinic.
- b. Baseline audiograms will not be conducted if it is known that the employee was exposed to noise within 14 hours of the exam.
- c. Audiograms shall be provided for the employees included in the HCP (selected by job classification, job tasks, or noise monitoring results) upon employment and annually thereafter.
- d. Audiograms shall be conducted by either the PBC Occupational Health Clinic or an outside vendor contracted by PBC to perform audiograms.
- e. Evaluation of audiograms shall be by the PBC Occupational Health Clinic Physician, a qualified audiologist, or an otolaryngologist.


4. Training

- a. Annual training is required for all employees exposed to noise at or above an 8-hour TWA of 85 dBA. The training shall cover the following information:
 - i. The effects of noise on hearing
 - ii. The purpose, advantages, disadvantages, and attenuation of various types of HPDs

- iii. Instruction on proper fitting and care of HPDs
- iv. The purpose and procedures of audiometric testing

5. Recordkeeping

- a. Noise monitoring records shall be maintained in accordance with the HCP and the ES/LC Records Retention Policy.
- b. Audiometric test records shall be maintained by:
 - i. The PBC Occupational Health Clinic as part of the employee's medical record
 - ii. By the vendor contracted to provide audiometric testing and training in order to perform comparative analysis of current audiograms to baseline audiograms


VERDENIA C. BAKER
COUNTY ADMINISTRATOR

Supersession History

- 1. PPM # CW-P-078, effective 05/20/2011
- 2. PPM # CW-P-078, effective 07/15/2016

ATTACHMENT A

DEFINITIONS

Action level - An 8-hour time-weighted average of 85 decibels measured on the A-scale, slow response, or equivalently, a dose of fifty percent.

Administrative controls – Methods that limit an employee’s exposure time to noise.

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

Audiologist - A professional, specializing in the study and rehabilitation of hearing, who is certified by the American Speech-Language-Hearing Association or licensed by a state board of examiners.

Baseline audiogram - The audiogram against which future audiograms are compared. This is generally the first audiogram known for the employee and must be preceded by 14 hours of quiet (not exposure to high noise levels).

Decibel – the unit of sound intensity. Decibels measured on the A-weighted scale (dBA) account for the sensitivity of the human ear.

Engineering controls – A means of reducing noise levels, which may include barriers, isolating, muffling, noise absorption material, etc. Engineering controls shall be used, whenever feasible, to reduce noise levels to the maximum extent possible, preferably 85 dBA or less.

Frequency – A sound’s pitch is measured in hertz (Hz).

Hearing Protection Device (HPD) – A type of personal protective equipment for hearing protection such as earplugs and muffs that are designed to be placed in the ear canal or over the ear in order to attenuate noise levels reaching the eardrum.

Hertz (Hz) - Unit of measurement of frequency, numerically equal to cycles per second.

Impulse/Impact Noise – Noise that is a sharp burst of sound, generally less than one-half second in duration, that does not repeat itself more than once per second.

Noise – Unwanted sound.

Noise dosimeter - An instrument worn by an individual that integrates the sound level exposure over a period of time.

Noise reduction rating (NRR) – A rating for HPDs that indicates the theoretical amount of reduction of noise levels that can be achieved if the HPD is worn correctly. The NRR is found on the HPD packaging.

Otolaryngologist - A physician specializing in diagnosis and treatment of disorders of the ear, nose, and throat.

Representative exposure - Measurements of an employee's noise dose or 8-hour time-weighted average sound level that is representative of the exposures of other employees in the workplace.

Sound – A vibration or pressure oscillation that is detectable by the eardrum.

Sound level meter (SLM) - An instrument for the measurement of sound level.

Standard Threshold Shift – An average change from the baseline audiogram of 10 dB or more in either ear at 2000, 3000, 4000 Hz.

Time-weighted average (TWA) sound level - That sound level, which if constant over an 8-hour exposure, would result in the same noise dose as is measured).