

Standard Operating Procedure HEARING CONSERVATION PROGRAM	PEORIA FIRE-MEDICAL DEPARTMENT Administration 100.12 Initial 10/12/2017 Page 1 of 6
--	---

PURPOSE

This program was developed to comply with Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1910.95 and NFPA 1500 to ensure the prevention of occupational hearing loss for all Fire-Medical Department employees. The permissible exposure level for Peoria Fire-Medical Department Hearing Conservation Program (HCP) is 85 decibels A-weighted (dBA). All employees exposed at or above 85 dBA over an 8-hour time-weighted average (TWA) period, are required to wear hearing protection.

This program has established a noise “Action Level,” defined as 82 decibels on the A-weighted scale (dBA), slow response, for an 8-hour time weighted average (TWA) period, or equivalently, a dose of 50%, based on an exchange rate of 3 decibels (dB). All employees exposed to noise levels at or above this level must participate in this program.

POLICY

DEFINITIONS

Action Level – The sound level when reached or exceeded necessitates implementation of activities to reduce the risk of noise-induced hearing loss. The City of Peoria currently uses an 8-hour TWA of 82 dBA as the criterion for implementing an effective HCP.

Attenuation – The estimated sound protection provided by hearing protective devices as worn in “real-world” environments.

Equal-Energy Rule – The relationship between sound level and sound duration based upon a 3dB exchange rate, i.e., the sound energy resulting from doubling or halving a noise exposure’s duration is equivalent to increasing or decreasing the sound level by 3dB, respectively.

Exchange Rate – The relationship between intensity and dose. The city of Phoenix uses a 3 dB exchange rate. Thus, if the intensity of an exposure increases by 3dB, the dose doubles (i.e., if a 50% dose represents a sound intensity of 82 dB, then increasing that intensity by 3dB, to 85 dB, would double the dose, to 100%)

Standard Operating Procedure	PEORIA FIRE-MEDICAL DEPARTMENT
HEARING CONSERVATION PROGRAM	Administration
	100.12
	Initial 10/12/2017 Page 2 of 6

IDENTIFICATION OF EXPOSURE

This program applies to all fire personnel who respond to fires and EMS calls on a regular basis. The associated work tasks on fire and emergency medical scenes are suspected of exposing employees to noise levels at or above 82 dBA as an 8 hour TWA.

Identification of Work Areas

Fire Department personnel shall wear hearing protection whenever exposed to noise at or above 85 decibels.

- The following work areas have been identified as requiring hearing protection:
- While riding in Fire apparatus under Code 3 and normal driving conditions
- Aircraft operating areas including parking aprons, runways and taxiways when aircraft are operational.
- All training activities that generate noise from sledgehammers, saws or any other fire equipment.
- Continuous work on or around a utility truck.

Identification of Equipment

Fire Department personnel are required to wear hearing protection when operating equipment that produces noise in excess of 85 decibels except in situations where the use of such personal protective equipment would create an additional hazard to the user.

Identified equipment includes but is not limited to the following:

- Apparatus pumps
- Extrication equipment
- Circular saws
- Air chisels

MONITORING

OSHA requires employers to monitor noise exposure levels in a manner that will accurately identify employees who are exposed to noise at or above 82dB averaged over 8 working hours, or an 8-hour TWA.

Standard Operating Procedure	PEORIA FIRE-MEDICAL DEPARTMENT
HEARING CONSERVATION PROGRAM	Administration
	100.12
	Initial 10/12/2017 Page 3 of 6

The exposure measurement must include all continuous, intermittent and impulsive noise within an 80dB – 130dB range, and must be representative of a typical work situation.

Monitoring should be repeated when changes in production, process or controls increase noise exposure. Such changes may mean that additional employee monitoring is needed and/or previously supplied hearing protection no longer provides adequate attenuation.

Fire Department Safety Section will evaluate noise exposures in work areas including fireground operations areas. Employees are entitled to observe the testing and monitoring procedures and must receive notification of the results of the tests in their workplace.

HEARING PROTECTION

Hearing protectors must be made available to all workers exposed to 8-hour TWA noise levels of 82dB or above.

Types of hearing protectors selected for employee protection must attenuate the noise to levels less than 85dB.

Where equipment operators are required to maintain radio communications while operating equipment, headsets that provide noise attenuation as well as radio communications/intercom shall be provided and used.

The wearing of hearing protection devices by employees will be mandatory under the following conditions:

- Wearing the hearing protection device does not create an additional hazard to the user.
- Employees who are exposed to average noise levels at an 8-hour time weighted average of 85dB or above.
- Employees who have not had a baseline audiogram and are exposed to 8-hour average noise levels of 85 dBA or above.
- Employees who have experienced a standard threshold shift (STS).

Standard Operating Procedure HEARING CONSERVATION PROGRAM	PEORIA FIRE-MEDICAL DEPARTMENT Administration 100.12 Initial 10/12/2017 Page 4 of 6
--	---

TRAINING

Fire-Medical Department employees exposed to an 8-hour time-weighted average noise of 82 dB and above shall be trained annually in the effects of noise, the purpose of hearing protectors, the advantages and disadvantages of the various types of hearing protectors, the selection, fitting and care of protectors, the purpose of audiometric testing, and an explanation of the test procedures.

AUDIOMETRIC TESTING

Annual audiometric testing of all employees exposed to 8-hour time weighted-average noise of 82 dB or above will be conducted at the Phoenix Fire Department Health Center as part of the annual employee physical. All new employees shall be given an initial baseline audiometric exam, which is performed during the pre-employment physical for new employees. Employees should be reminded to avoid exposure to loud levels of noise for at least 14 hours prior to the audiometric exam. If the employee believes that exposure to noise is unavoidable for this 14-hour period, he/she shall be instructed to wear hearing protection while exposed to noise.

RESPONSIBILITY

STANDARD THRESHOLD SHIFT – FOLLOW-UP PROCEDURES

Once the Peoria Fire-Medical Administration has received the Comprehensive Hearing Test Report from the Phoenix Fire Department Health Center concerning employees with a Standard Threshold Shift (STS), which is a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000 and 4000Hz in either ear, they will contact the affected employee with the information necessary for the employee schedule a follow-up appointment with an Audiologist.

It will be the employees responsibility to schedule their appointment within 30 days, and it will be the responsibility of the City to pay for the consultation with the Audiologist. If the second audiometric exam, performed within 30 days of the first test, confirms a standard threshold shift, the affected employee shall be notified by the consulting Audiologist in writing within 21 days of this determination.

Unless a physician determines that the standard threshold shift is not work-related, or aggravated by occupational noise exposure, the following steps must be taken:

Standard Operating Procedure HEARING CONSERVATION PROGRAM	PEORIA FIRE-MEDICAL DEPARTMENT Administration 100.12 Initial 10/12/2017 Page 5 of 6
--	---

1. Employees not wearing hearing protectors shall be fitted with hearing protectors, trained in their use and care, and required to use them provided that the use does not create an additional hazard.
2. Employees already using hearing protectors shall be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation, if necessary.
3. The employee shall be referred for a clinical audiological evaluation or an otological examination, as appropriate; if additional testing is necessary or if the employer suspects that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.
4. The employee will be informed of the need for an otological examination if a medical pathology of the ear, unrelated to the use of hearing protectors, is suspected.
5. If subsequent audiometric testing of an employee, whose noise exposure is less than an 8-hour TWA of 85dB, indicates that a standard threshold shift is not persistent, the employer:
 - a. Shall inform the employee of the new audiometric interpretation;

AND

- b. May discontinue the required use of hearing protectors for that employee.

RECORD KEEPING

Noise exposure measurement records shall be retained for five (5) years.

Employees with standard threshold shifts – STS- (25dB shifts in hearing acuity) averaged over the frequencies at 2000, 3000 and 4000Hz in either ear will be considered to have an OSHA reportable injury. This injury shall be included on the OSHA 300 Log.

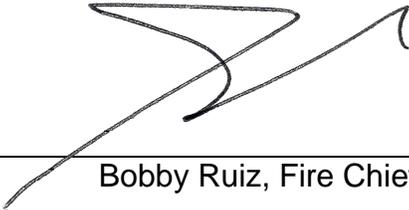
STS's will be determined by annual audiometric testing.

Standard Operating Procedure HEARING CONSERVATION PROGRAM	PEORIA FIRE-MEDICAL DEPARTMENT Administration 100.12 Initial 10/12/2017 Page 6 of 6
--	---

Employees with standard threshold shifts – STS – (10 dB shifts in hearing acuity) averaged over the frequencies at 2000, 3000 and 4000Hz in either ear which results in a total 25 dB level of hearing above audiometric zero will be considered to have an OSHA reportable injury which must be recorded on the OSHA 300 Log by checking the “hearing loss” column.

Records of audiometric test results shall be maintained at the Health Center for the duration of employment of the affected employee plus 30 years.

Audiometric test records must include the name and job classification of the employee, the date of the test, the name of the examiner, the date of acoustic calibration of the testing equipment, background sound pressure levels in the audiometric test room, and the employee’s most recent noise exposure measurements.

Approved:  _____ 11/09/2017
Bobby Ruiz, Fire Chief Date