

# OCCUPATIONAL NOISE EXPOSURE PROGRAM



**Stoughton Utilities**



STOUGHTON UTILITIES SAFETY COMPLIANCE PROGRAM MANUAL			
<b>Program Name</b>	Occupational Noise Exposure	<b>Procedure No.</b>	N/A
<b>Regulatory Reference</b>	OSHA 29 CFR 1910.95, as adopted by Wisconsin Department of Commerce		
<b>Date Created</b>	January 23, 2001	<b>Latest Revision</b>	November 1, 2010
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Attachment A - Table G-16 from 29 CFR 1910.95

Attachment B - Noise Monitoring Results

Attachment C - Audiogram Provider

Attachment D - 14 Hours of Quiet Notice

Attachment E - OSHA 29 CFR 1910.95 "Occupational Noise Exposure"

Attachment F - STS Follow-up Form

Attachment G - Hearing Protectors

Attachment H - Hearing Protector Evaluation Methods

Attachment I - Training



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## 1.0 POLICY

It is the policy of Stoughton Utilities to provide protection against the effects of noise exposure when the sound levels exceed those prescribed by OSHA 29 CFR 1910.95. When employees are subjected to sound exceeding those listed in Table G-16 of 29 CFR 1910.95 (See attachment A), feasible administrative or engineering controls are utilized. When such controls fail to reduce sound levels within the levels of Table G-16, personal protective equipment, as part of a comprehensive hearing conservation program, is provided and used to reduce sound levels within the levels of the table.

## 2.0 HEARING CONSERVATION PROGRAM

Stoughton Utilities administers a continuing, effective hearing conservation program, as described in sections 2.1 through 2.6 of this Program, whenever employee noise exposures equal or exceed an 8-hour time-weighted average sound level (TWA) of 85 decibels measured on the A scale (slow response) or, equivalently, a dose of fifty percent.

### 2.1 Monitoring

Monitoring has revealed that employee exposure may equal or exceed an 8-hour time-weighted average of 85 decibels in some areas or during some tasks; as a result, a monitoring program has been established.

#### 2.1.1 Sampling Strategy

The sampling strategy is designed to identify employees for inclusion in the hearing conservation program and to enable the proper selection of hearing protectors. 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 is used to comply with the monitoring unless the it can be shown that area sampling produces equivalent results. Regarding sampling methods:

- a) All continuous, intermittent and impulsive sound levels from 80 decibels to 130 are integrated into the noise measurements;
- b) Instruments used to measure employee noise exposure are calibrated to ensure measurement accuracy; and
- c) Monitoring is repeated whenever a change in production, process, equipment or controls increases noise exposures to the extent that:
  - i. Additional employees may be exposed at or above the action level; or



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- ii. The attenuation provided by hearing protectors being used by employees may be rendered inadequate to meet the requirements of section 2.3.3 of this Program.

#### 2.1.2 Employee Notification

Each employee exposed at or above an 8-hour time-weighted average of 85 decibels is notified of the results of the monitoring by verbal notification and a copy of the results is made available.

#### 2.1.3 Observation of monitoring

Affected employees or their representatives are provided with an opportunity to observe any noise measurements conducted pursuant to this Program by contacting the Program Coordinator.

#### 2.1.4 Monitoring Results

The results of the most recent noise monitoring are included as Attachment B.

### 2.2 Audiometric Testing Program

Audiometric testing is available to all employees whose exposures equal or exceed an 8-hour time-weighted average of 85 decibels. These audiograms:

- a) Are provided at no cost to employees;
- b) Are performed by properly certified personnel employed by the organization identified in Attachment C; and
- c) Meet the requirements of Appendix C of 29 CFR 1019.95 - "Audiometric Measuring Instruments."

#### 2.2.1 Baseline Audiogram

Within 6 months of an employee's first exposure at or above the action level, a valid baseline audiogram is obtained against which subsequent audiograms will be compared.

##### 2.2.1.1 14 Hours of Quiet

Testing to establish a baseline audiogram is preceded by at least 14 hours without exposure to workplace noise. Hearing protectors may be used as a substitute for the requirement that baseline audiograms be preceded by 14 hours without exposure to workplace noise. Employees are notified of the need to avoid high levels of non-occupational noise exposure during the



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14-hour period immediately preceding the audiometric examination. The notice provided to employees regarding this requirement is provided as Attachment D.

## 2.2.2 Annual Audiogram

At least annually after obtaining the baseline audiogram, a new audiogram for each employee exposed at or above an 8-hour time-weighted average of 85 decibels is obtained.

### 2.2.2.1 Evaluation of Audiogram

Each employee's annual audiogram is compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred.

If the annual audiogram shows that an employee has suffered a standard threshold shift, a retest may be done within 30 days and the results of this retest considered as the annual audiogram.

**Note:** A standard threshold shift is defined as a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more at 2000, 3000, and 4000 Hz in either ear. In determining whether a standard threshold shift has occurred, allowance may be made for the contribution of aging (presbycusis) to the change in hearing level by correcting the annual audiogram according to the procedure described in Appendix F to OSHA 29 CFR 1910.95 - "Calculation and Application of Age Correction to Audiograms."

An audiologist, otolaryngologist, or physician will review problem audiograms to determine whether there is a need for further evaluation. The person performing this evaluation is provided with the following information:

- a) A copy of the requirements for hearing conservation as set forth in paragraphs (c) through (n) of OSHA 29 CFR 1910.95. (see Attachment E)
- b) The baseline audiogram and most recent audiogram of the employee to be evaluated;
- c) Measurements of background sound pressure levels in the audiometric test room as required in Appendix D of 29 CFR 1910.95 - "Audiometric Test Rooms".
- d) Records of audiometer calibrations required by paragraph (h)(5) of OSHA 29 CFR 1910.95.



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### 2.2.3 Follow-up Procedures

If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift has occurred, the employee is informed of this fact in writing, within 21 days of the determination.

Unless a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure, Stoughton Utilities ensures that the following steps are taken when a standard threshold shift occurs:

- a) Employees not using hearing protectors are fitted with hearing protectors, trained in their use and care, and required to use them;
- b) Employees already using hearing protectors are refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary;
- c) The employee is referred for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if Stoughton Utilities suspects that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors; and
- d) The employee is informed of the need for an otological examination if a medical pathology of the ear that is unrelated to the use of hearing protectors is suspected.

The form provided as Attachment F is used to document this follow-up process.

If subsequent audiometric testing of an employee whose exposure to noise is less than an 8-hour TWA of 90 decibels indicates that a standard threshold shift is not persistent, Stoughton Utilities will:

- a) Inform the employee of the new audiometric interpretation; and
- b) May discontinue the required use of hearing protectors for that employee.

### 2.2.4 Revised baseline

An annual audiogram may be substituted for the baseline audiogram when, in the judgment of the audiologist, otolaryngologist or physician who is evaluating the audiogram:

- a) The standard threshold shift revealed by the audiogram is persistent; or
- b) The hearing threshold shown in the annual audiogram indicates significant improvement over the baseline audiogram.



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### 2.2.5 Audiometric Test Requirements

The provider identified on Attachment C has indicated that all testing is performed per the requirements contained in OSHA 29 CFR 1910.95(h).

## 2.3 Hearing Protectors

### 2.3.1 Availability

Hearing protectors are available to all employees exposed to an 8-hour time-weighted average of 85 decibels or greater at no cost to the employees. Hearing protectors are replaced as necessary. Attachment G lists the location and type of hearing protectors available. Additional hearing protectors are available by contacting Scott Grady, who will purchase hearing protectors.

Employees are given the opportunity to select their hearing protectors from a variety of suitable hearing protectors provided by Stoughton Utilities.

Stoughton Utilities ensures proper initial fitting and supervises the correct use of all hearing protectors. Employees observed to be wearing hearing protectors incorrectly will be corrected at that time.

### 2.3.2 Use

Hearing protectors are worn by any employee who:

- a) Is required by Section 1.0 of this policy to wear personal protective equipment; or
- b) Has experienced a standard threshold shift.

### 2.3.3 Hearing Protector Attenuation

Stoughton Utilities evaluates hearing protector attenuation for the specific noise environments in which the protector will be used. Method (*i, ii, iii, iv, v or vi*) in OSHA 29 CFR 1910.95 Appendix B: "Methods for Estimating the Adequacy of Hearing Protection Attenuation." is used. See Attachment H.



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Selected hearing protectors:

- a) Attenuate employee exposure at least to an 8-hour time-weighted average of 90 decibels.
- b) For employees who have experienced a standard threshold shift, hearing protectors attenuate employee exposure to an 8-hour time-weighted average of 85 decibels or below.

#### 2.3.4 Evaluation

The adequacy of hearing protector attenuation is re-evaluated whenever employee noise exposures increase to the extent that the hearing protectors provided may no longer provide adequate attenuation. Stoughton Utilities will provide more effective hearing protectors where necessary.

### 2.4 Training Program

All employees who are exposed to noise at or above an 8-hour time-weighted average of 85 decibels, are required to participate in this training program.

#### 2.4.1 Scheduling

The training program is repeated annually for each employee included in the hearing conservation program. Information provided in the training is updated to be consistent with changes in protective equipment and work processes.

#### 2.4.2 Content

The training program includes the following information:

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

### 2.5 Access to Information and Training Materials

Stoughton Utilities makes available to affected employees or their representatives copies of OSHA 29 CFR 1910.95 as well as any other related materials provided by the Assistant Secretary of Labor and posts a copy of the Standard in the workplace



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(Wastewater Plant lunch room and in break room of the Utilities Building). A copy of 29 CFR 1910.95 is also provided in Attachment E of this program.

Stoughton Utilities will provide, upon request, all materials related to the employer's training and education program pertaining to this standard to the Department of Commerce.

## 2.6 Recordkeeping

### 2.6.1 Exposure Measurements

An accurate record of all employee exposure measurements is maintained. See attachment B.

### 2.6.2 Audiometric Tests

Stoughton Utilities retains all employee audiometric test records discussed in section 2.2 of this Program in the Utilities Planning Office. This record includes:

- a) Name and job classification of the employee;
- b) Date of the audiogram;
- c) The examiner's name;
- d) Date of the last acoustic or exhaustive calibration of the audiometer; and
- e) Employee's most recent noise exposure assessment.

Additionally, measurements of the background sound pressure levels in audiometric test rooms are retained.

### 2.6.3 Record Retention

- a) Noise exposure measurement records are retained for two years.
- b) Audiometric test records are retained for the duration of the affected employee's employment.

### 2.6.4 Access to Records

All records required by this program will be provided upon request to employees, former employees, representatives designated by the individual employee, and the Department of Commerce. It is understood that the provisions of OSHA 29 CFR 1910.1020 (a)-(e) and (g)-apply to access to records created as a part of this Program.



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#### 2.6.5 Transfer of Records

If Stoughton Utilities ceases to do business, all records required to be maintained by this Program will be transferred to the successor, and the successor employer must retain them for the remainder of the period prescribed in section 2.6.3 of this Program.

### 3.0 PROGRAM AUDIT

Compliance with this Program is audited on an ongoing basis by all personnel and any deficiencies should be reported to the Program Coordinator. Annually, the Program Coordinator or his /her designee conducts a formal audit.