

Rutgers Environmental Health and Safety (REHS)

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| Program Name: | Occupational Noise and Hearing Conservation Program | | |
| Responsible Executive: | Executive Director of REHS | | |
| Adopted: | June 30, 2000 | Reviewed/Revised: | July 13, 2018 |

1. Program Statement

It is the policy of Rutgers University to provide a safe and healthful workplace, including minimizing risks associated with exposure to noise.

2. Reason for Program

This program defines the minimum acceptable requirements to protect Rutgers employees from occupational noise exposures. It is also designed to ensure compliance with the following OSHA/PEOSH standards:

- *Occupational Noise Exposure - 29 CFR 1910.95 (General Industry Standard)*

3. Who Should Read this Program

This program applies to all Rutgers employees with noise exposures that equal or exceed the OSHA Action Level of 85 decibels on the A-scale (dBA), calculated as an eight-hour time-weighted average (TWA). Grounds workers and supervisors who operate power mowers, string line trimmers, blowers, vacuums and other landscaping equipment in the following departments meet this criteria:

- Facilities Maintenance
- Housing
- Conference Services

Other employees may have occupational noise exposures that approach or exceed the OSHA Action Level. As these employees are identified, REHS will perform appropriate noise surveys and assessments to determine if these employees must be included in the Hearing Conservation Program. All supervisors and employees are expected to identify and minimize occupational noise exposures, whether they are included in the Hearing Conservation Program or not.

4. The Program

I. Roles and Responsibilities

A. Rutgers Environmental Health and Safety (REHS)

- 1) Develops and administers the Rutgers Occupational Noise and Hearing Conservation Program.

- 2) Performs stationary source noise surveys and employee noise exposure assessments to identify high noise sources and employees that exceed the Action Level.
 - 3) Recommends and evaluates hearing protectors that provide adequate attenuation for supervisors and employees in the Hearing Conservation Program.
 - 4) Identifies employees for inclusion in the Hearing Conservation Program.
 - 5) Provides technical support to the Occupational Health Department to conduct appropriate medical monitoring and surveillance for employees in the Hearing Conservation Program.
 - 6) Provides training to employees in the Hearing Conservation Program.
 - 7) Maintains noise survey, employee exposure assessment, and training records for the Occupational Noise and Hearing Conservation Program.
- B. Department Directors with Employees in the Hearing Conservation Program
- 1) Ensure employees and supervisors review and comply with provisions of the Occupational Noise and Hearing Conservation Program.
 - 2) Ensure employees receive appropriate training and supervision to comply with this program.
 - 3) Ensure supervisors receive appropriate support to comply with this program.
- C. Supervisors with Employees in the Hearing Conservation Program
- 1) Ensure employees comply with all requirements of the Rutgers Occupational Noise and Hearing Conservation Program.
 - 2) Ensure that required equipment is available and used.
 - 3) Identify work areas, work activities, and employees to REHS for appropriate noise surveys and exposure assessments to determine if employees are exposed to occupational noise above the Action Level.
 - 4) Provide appropriate hearing protection to employees in the Hearing Conservation Program and ensure the assigned hearing protection is worn.
 - 5) Schedule and ensure employees in the Hearing Conservation Program receive required medical monitoring and surveillance by the Occupational Health Department.
 - 6) Identify and implement control measures that minimizes and reduces employee exposure to harmful occupational noise.
- D. Employees in the Hearing Conservation Program
- 1) Wear appropriate hearing protection, as instructed, during work activities identified by your supervisor and REHS.
 - 2) Clean, store, and maintain (as appropriate) all hearing protection provided to you by your supervisor.

- 3) Attend training required by this program and incorporate elements of this training into work activities to reduce occupational noise exposures.
- 4) Immediately report any problems with your hearing protection to your supervisor.
- 5) Immediately report any noise-related medical symptoms to your supervisor and seek an evaluation from Occupational Health.

E. Occupational Health Department

- 1) Provides appropriate medical monitoring (audiometric testing) and surveillance for employees in the Hearing Conservation Program.
- 2) Maintains all medical records required by the Hearing Conservation Program.

II. Definitions

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| <i>Action Level</i> | An eight-hour time-weighted average (TWA) noise exposure of 85 decibels measured on the A-scale (dBA), slow response, or a dose of fifty percent. If employee noise exposure equals or exceeds the Action Level, an employer must implement a Hearing Conservation Program. |
| <i>Decibel (dB)</i> | A unit of sound pressure measurement. |
| <i>Employee</i> | Any person drawing a Rutgers paycheck. |
| <i>Employer</i> | Rutgers University. |
| <i>Hearing Conservation Program</i> | <p>A continuing, effective program implemented whenever employee noise exposures equals or exceeds the Action Level, without regard to the noise attenuation provided by hearing protection. A Hearing Conservation Program must include the following elements:</p> <ol style="list-style-type: none"> a) Identification and assessment of employee noise exposures. b) Initial and annual audiometric (hearing) tests for employees that exceed the Action Level. c) Provision of hearing protection and a means to ensure it is worn if noise exposures exceed the Action Level. d) Provision of annual training to all employees in the program. |
| <i>Permissible Exposure Limit</i> | An eight-hour time-weighted average (TWA) noise exposure of 90 decibels measured on the A-scale (dBA), slow response or a dose of one hundred percent. If employee noise exposure equals or exceeds the Permissible Exposure Limit, the employer must implement administrative or engineering controls to |

reduce exposure. If these controls fail, the employees shall be provided with PPE and be required to wear it.

III. Procedures

A. Noise Surveys and Exposure Assessments

REHS staff members measure employee occupational noise exposures produced by stationary equipment and tools used during specific work activities. All noise survey and assessment results are reported to department directors, immediate supervisors, and affected employees. Based upon these results, REHS recommends engineering controls (equipment substitution), administrative controls (employee rotation), and/or appropriate personal protective equipment to reduce employee noise exposures below the OSHA Action Limit.

Stationary Source Noise Surveys

Stationary source noise surveys are performed whenever an administrative unit, employee, or REHS identifies a perceived "high noise" area and requests a survey. REHS measures sound pressure levels throughout the room or area, identifies equipment that contributes to the overall sound pressure levels in the room, and estimates the number of employees as well as the work activity duration for the room or survey area. Stationary source noise survey results are reported to the area or zone supervisor, with a copy sent to the department director.

Personal Noise Exposure Assessments

Personal (individual employee) noise exposure assessments are performed under the following circumstances:

- 1) REHS identifies rooms or areas with high noise levels that are occupied by employees for significant periods of time.
- 2) REHS identifies work activities anticipated to produce a noise exposure that exceeds or approaches the OSHA Action Level of 85 dBA, based upon the sound pressure levels produced by specific pieces of equipment and employee exposure duration.
- 3) An employee or supervisor requests a noise exposure assessment and is reasonably anticipated to be exposed to noise sources that exceed 85 dBA.
- 4) REHS wants to evaluate the effectiveness of engineering or administrative controls implemented to reduce occupational noise exposure.

REHS records the employee's name, describes the employee work activities performed, identifies the type and noise reduction rating of hearing protector worn, and identifies noise sources that contribute to exposure during the assessment period. All personal exposure monitoring results are reported to the employee within 5 working days of the assessment. Copies are sent to the employee's direct supervisor, the department director, and the Occupational Health Physician.

B. Noise Exposure Control Strategies

The OSHA Occupational Noise Exposure standard requires employers to use feasible administrative or engineering controls to reduce employee noise exposure below the Permissible Exposure Limit of 90 dBA, calculated as an eight-hour time weighted average.

The Rutgers University Occupational Noise Program requires control strategies to minimize employee noise exposures above both the Action Level (85 dBA) and Permissible Exposure Limit (90 dBA). The following briefly summarizes engineering and administrative controls used to reduce employee noise exposures.

Engineering Controls

An engineering control reduces the noise level associated with a process or tool. This strategy is preferred over an administrative control because it reduces the actual noise level associated with a process or tool and cannot be easily overridden or ignored. However, effective engineering controls require a thorough noise characterization, available technology to reduce noise sound pressure levels, and a capital expenditure. Rutgers policy requires administrative units and supervisors to incorporate noise engineering controls whenever:

- 1) Replacing mechanical equipment and tools.
- 2) Excessive noise sound pressure levels (>90 dBA) and work activity exceeds 4 hours.

Administrative Controls

An administrative control minimizes the duration of employee work activities at harmful noise levels to reduce overall exposure. This control strategy is successful only when the noise levels associated with an area or tool are well documented, the work activity duration limits are strictly enforced, and a sufficient labor pool exists to rotate employees out of a noisy environment.

REHS will review proposed engineering and administrative controls with supervisors and administrative units to select the most effective and economical approach to reduce employee noise exposure. In addition, REHS will conduct appropriate noise exposure monitoring to ensure the control strategy selected is effective.

Hearing Conservation Program

The OSHA Occupational Noise Exposure standard requires employers to administer a continuing, effective Hearing Conservation Program whenever employee noise exposures equal or exceed the action level of 85 dBA, calculated as an eight-hour time weighted average. This requirement applies regardless of the noise attenuation provided by hearing protective equipment. The following describes the elements of the Rutgers Hearing Conservation Program.

- 1) Selection and Issuance of Hearing Protection
 - a. Hearing protection is required whenever personal noise exposure monitoring results show an employee exceeds either the OSHA Action Level or Permissible Exposure Level. Employees performing similar work activities with the same equipment shall also be required to wear hearing protection. Hearing protection that attenuates the noise levels below the Action Level of 85 dBA, based upon the Noise Reduction Rating (NRR) developed by the Environmental Protection Agency (EPA) and Appendix B in the OSHA Occupational Noise Exposure standard, shall be used by employees in the Hearing Conservation Program.
 - b. Immediate supervisors for employees in the Hearing Conservation Program shall provide hearing protection and ensure their employees wear them. Employees shall select their own hearing protection that provides adequate attenuation of

noise levels encountered during work activities and is comfortable to wear. REHS will provide supervisors with guidance in the selection of appropriate hearing protection.

2) Employee Medical Monitoring for Noise Exposure

- a. REHS provides a copy of all employee exposure monitoring results to the Occupational Health Physician. Immediate supervisors will provide REHS with an employee list, by job classification or title, determined to exceed the OSHA Action Level of 85 dBA. This determination is based upon actual exposure monitoring results for that employee or exposure monitoring results for employees with similar job titles and work activities. These employees will be included in the noise medical monitoring program, which includes audiometric testing and surveillance, administered through the Occupational Health Department. Audiometric testing shall be provided at no cost to the employees and will comply with the OSHA Occupational Noise Exposure standard requirements.

IV. Training Requirements

All Employees in the Hearing Conservation Program will receive initial and annual noise training that covers the following topics:

- 1) The effects of noise on hearing.
- 2) The purpose of hearing protection.
- 3) The advantages, disadvantages, and attenuation of various types of hearing protection.
- 4) Instructions on selection, fitting, use and care of hearing protection.
- 5) The purpose of audiometric testing and an explanation of test procedures.