

OCCUPATIONAL AND ENVIRONMENTAL SAFETY & HEALTH OPERATIONAL PROCEDURE

Subject: Hearing Conservation and Noise Control

Effective Date: January 2016 version 3 **Supersedes:** May 2009

Review Date: 3 years or legislation or job changes

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1.0 GUIDING PRINCIPLES

- 1.1 In keeping with the Winnipeg Regional Health Authority (WRHA) commitment to providing a safe and healthy workplace as noted in the WRHA Workplace Safety and Health policy (20.20.030), the following Operational Procedure has been developed to ensure that:
 - 1.1.1 Noise exposure that can cause hearing impairment is identified, assessed, and controlled.
 - 1.1.2 Annual hearing testing for exposed employees is provided in order to identify whether further medical, administrative, or engineering controls may be needed in order to assist individual workers.
 - 1.2 This operational procedure is also designed to ensure that when followed the minimum requirements of Manitoba Workplace Safety and Health legislation is complied with and where possible exceeded.
 - 1.3 As with all matters relating to the Safety and Health of workers the Workplace Safety and Health Committee should be consulted for their input.
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2.0 DEFINITIONS

- 2.1 **The Act:** The Workplace Safety and Health Act W210 of Manitoba.
- 2.2 **Committee:** A workplace (occupational) safety and health committee established under section 40 of the Workplace Safety and Health Act.
- 2.3 **Employer:**
 - 2.3.1 Every person who, by himself or his agent or representative employs or engages one or more workers, and
 - 2.3.2 The Crown and every agency of the government.
- 2.4 **Supervisor:** A person who has charge of a workplace or authority over a worker.

- 2.5 **Worker:**
- 2.5.1 Any person who is employed by an employer to perform a service whether for gain or reward, or hope of gain or reward or not.
 - 2.5.2 Any person engaged by another person to perform services, whether under a contract of employment or not.
 - 2.5.3 Any person undergoing training or serving an apprenticeship at an education institution or at any other place.
- 2.6 **Director:** The person administratively responsible for the department or unit. Director includes heads of departments.
- 2.7 **Certified Audiometric Technician:** a person who is licensed as an Industrial Audiometric Technician meeting the requirements of the Workplace Safety and Health Regulation.
- 2.8 **OESH:** The Occupational and Environmental Safety and Health Department.
- 2.9 **Sound Control Measures:** Methods to reduce the noise exposures including engineering or administrative controls that eliminate control or reduce noise exposure.
- 2.10 **Baseline Audiogram:** The audiogram against which future audiograms are compared which must be completed within 70 days of hire.
- 2.11 **Decibels (dB):** A measure of the sound level (loudness).
- 2.12 **Hertz (Hz):** A unit of measurement of frequency, expressed as cycles per second.
- 2.13 **Sound Level Meter:** An instrument used for the measurement of noise in sound level surveys.
- 2.14 **Time-Weighted Average (TWA) Sound Level:** A measure of the total noise exposure over a specified period of time.

3.0 OPERATIONAL PROCEDURE

- 3.1 The Manitoba Workplace Safety & Health Regulation [M.R. 217/2006] Part 12 *Hearing Conservation and Noise Control*, requires employers to ensure workers are not exposed to noise levels that may cause hearing loss.
- 3.2 Employers are required to assess the workplace for noise when there may be a concern about exposure levels as follows:
- 3.2.1 If average noise exposure in a workplace is 80 dBA or lower, no action is required.
 - 3.2.2 If your workplace noise exposure level is above 80 dBA, programs to protect your hearing are required.
 - 3.2.3 If the noise exposure levels are above 85 dBA (Lex), the employer must put implement a hearing conservation program. This includes applying sound control measures following the Hierarchy of Controls as outlined in the WRHA OESH Operational Procedure – Report and Resolution of Safety and Health Concerns.
- 3.3 Each facility/site/program will have a noise control and hearing conservation program which will consist of the following where applicable:

- 3.3.1 **Sound Control Design:** Any significant physical alteration, renovation or repair to the workplace, process or equipment designed and constructed to maintain the noise at a safe level.
 - 3.3.2 **Noise Exposure Assessment:** Sound levels workers are exposed to prior to putting a hearing conservation program in place. Assessments must be conducted according to the requirements of CAN/CSA Standard Z107.56-06.
 - 3.3.3 **Sound Control Measures:** Measures to reduce the noise exposures including engineering or administrative controls that eliminate control or reduce noise exposure.
 - 3.3.4 **Hearing Protection:** Device that can be worn to reduce the level of sound entering the ear. Provide hearing protection meeting the requirements of CAN/CSA Standard Z94.2-02 to workers exposed to sound levels over 80 dBA (Lex).
 - 3.3.5 **Audiometric Test:** A baseline or annual test for exposed workers that measures how well sounds are heard at different frequencies or pitches.
 - 3.3.6 **Annual Reporting:** Annual reports generated including sound control measures taken at the workplace, statistics including the number of employees who received audiometric testing, the number that experienced abnormal shifts, and the number that had abnormal audiograms as a result of exposure to workplace noise exposure
 - 3.3.7 **Signage:** warning sign indicating that any person entering the workplace or work area risks exposure to a noise level that is harmful to hearing.
- 3.4 All costs relating to the Hearing Conservation and Noise Control Program are the responsibility of the facility/site/program.

4.0 RESPONSIBILITIES

4.1 Employer

- 4.1.1 Act in accordance with the objects and purposes of the Act by ensuring, so far as is reasonably practicable, the safety, health and welfare at work of all his workers, and complying with the Manitoba Workplace Safety & Health Act and Regulations.
- 4.1.2 Ensure that all workers particularly supervisors, foremen, charge-hands or similar persons, are acquainted with any safety or health hazards which may be encountered by the workers in the course of their service, and that workers are familiar with the use of all devices or equipment provided for their protection.

4.2 Facility/Site/Program Executive Team

- 4.2.1 Assign responsibilities to staff within the facility/site/program to ensure the implementation of this operational procedure.
- 4.2.2 Ensure resources (information, training, tool, equipment and time) are available to provide/maintain 4.2.1.
- 4.2.3 Support the Operational Procedure throughout the facility/site/program.

4.3 Manager/Supervisor/Directors

- 4.3.1 Ensure compliance with all aspects of the regulations. The department director is responsible for ensuring that their area of responsibility complies with all aspects of the regulations and this operational procedure.
- 4.3.2 The Manager/Supervisor in each work area, with the assistance of OESH, will ensure that a significant physical alteration, renovation, or repair to an existing workplace or a work process or any significant equipment that is introduced to the workplace is designed and constructed so that the continuous noise level generated is not more than 85 dBA; or as low as is reasonably practicable.
- 4.3.3 If a worker is or is likely to be exposed to noise at a workplace in excess of 80 dBA the Manager/Supervisor will request through OESH for a noise exposure assessment at the workplace.
- 4.3.4 Notify OESH of any process, material, or equipment changes or modifications that may alter noise exposures so a noise exposure assessment can be coordinated.
- 4.3.5 Notify OESH of any physical alterations, renovations, and repairs that may result in a significant change to a worker's exposure to noise.
- 4.3.6 Post a warning sign indicating that any person entering the workplace or work area risks exposure to a noise level that is harmful to hearing. Refer to Appendix E.
- 4.3.7 When reasonably practicable, in consultation with the OESH Safety & Health Coordinator implement sound control measures that reduce the noise to which the worker is exposed to 85 dBA Lex or less.
- 4.3.8 Provide hearing protection that complies with CAN/CSA Standard-Z94.2-02, *Hearing Protection Devices c Performance, Selection, Care, and Use* based on recommendations and information sheet provided by the OESH Safety & Health Coordinator.
- 4.3.9 Ensure workers properly use and care for hearing protectors and participate in annual Audiometric Testing.
- 4.3.10 Ensure noise-exposed workers attend hearing conservation program training.

4.4 **Worker**

- 4.4.1 Follow the Hearing Conservation Program.
- 4.4.2 Where it is deemed a requirement for the work area or during operation of equipment, wear hearing protection as provided by the manager.
- 4.4.3 Ensure proper procedures are followed for use of hearing protection equipment.
- 4.4.4 Participate in annual hearing testing and provide relevant medical history if requested to do so.
- 4.4.5 Report noise hazards and hearing protector problems to the appropriate supervisor.

4.5 **Facility/Program/Department Workplace Safety and Health Committees**

- 4.5.1 Consult with the facility/site/program on the development and implementation of this operational procedure.
- 4.5.2 Post the written report of the noise exposure assessment at the workplace.
- 4.5.3 Review and monitor the effectiveness of this operational procedure.
- 4.5.4 Review and monitor the effectiveness of the Hearing Conservation Program.

4.6 **WRHA OESH - Safety & Health Coordinator**

- 4.6.1 Consult with the facility/site/program on all aspects of this operational procedure.
- 4.6.2 Post written reports of any noise level assessments in a prominent location.
- 4.6.3 Maintain an up-to-date list and/or map of noise hazard areas/operations and noise exposed workers.
- 4.6.4 Coordinate required noise level measurements and reports.
- 4.6.5 Maintain all noise level surveys for a minimum 10 years from date of record.
- 4.6.6 Conduct annual reviews of the Hearing Conservation Program to ensure that all aspects of the program, including CSA Standards, are implemented, maintained and reviewed annually or when otherwise noted.
- 4.6.7 Develop and monitor the effectiveness of the Hearing Conservation Program.
- 4.6.8 Provide annual reports to the Workplace Safety and Health Committee, Workplace Safety and Health Division, Facility/Site Directors, and Managers of participating departments that includes:
 - 4.6.8.1 Sound control measures taken at the workplace.
 - 4.6.8.2 Statistics including the number of employees who received audiometric testing, the number that experienced abnormal shifts, and the number that had abnormal audiograms as a result of exposure to workplace noise exposure.

4.7 **WRHA OESH - Occupational Health Nurse**

- 4.7.1 Coordinate baseline and annual audiometric testing in consultation with Managers.
- 4.7.2 Maintain all employee Audiometric testing records in the employee's confidential occupational health file.
- 4.7.3 Coordinate discussions with employees regarding results of the audiometric test as per recommendations set forth by Audiometric Test Provider.

5.0 **TRAINING REQUIREMENTS**

- 5.1 The training program must be workplace specific, effective, and updated annually or when changes which may affect the procedure are introduced in the workplace.
- 5.2 Training must involve understanding of:
 - Proper use, selection, and care of the hearing protection.
 - Proper storage of the hearing protection.
 - Proper disposal of hearing protection.
- 5.3 All training must be documented. Records must be retained as required by the Manitoba Workplace Safety and Health Act and Regulations.
- 5.4 Retraining will be offered if necessary or upon request.
- 5.5 The Audiometric testing contractor/Certified Audiometric Technician will inform the worker about the hazards noise and how to correctly wear hearing protectors.

REFERENCES:

Government of Manitoba. (2002). *The Workplace Safety and Health Act – W210*. Winnipeg: Queen's Printer. www.safemanitoba.com

Government of Manitoba. (2006). *The Workplace Safety and Health Regulation – 217/2006*. Winnipeg: Queen's Printer. www.safemanitoba.com

Current version of CAN/CSA Z94.2, Hearing Protection Devices – Performance, Selection, Care, and Use
Workplace Health & Safety Act Part 12 (MR.217/2006) Hearing Conservation and Noise Control

APPENDIX:

Appendix A - Hearing Protection Guidelines

Appendix B - Hearing Conservation Algorithm (Noise Survey)

Appendix C - Hearing Conservation Algorithm (Audiometric Testing New HSC Employees)

Appendix D – Hearing Conservation Algorithm (Audiometric Testing New Employees)

Appendix E - Hearing Conservation Algorithm (Audiometric Testing)

Appendix F – Noise Exposure Signage