

March 26, 2012

Noise Control and Hearing Conservation

1. Introduction

1.1. Purpose

This Code of Practice (COP) is to ensure that no worker is subjected to noise levels which may contribute to hearing loss or that may exceed legal requirements. Strike has identified "Noise" as a hazard source as part of our hazard identification, assessment and control (HIAC) program.

In accordance with legislated requirements on noise control and hearing conservation, this COP has been developed to:

- Assess workers' fitness for specific jobs.
- Establish employee audiometric baseline.
- Identify and address any deterioration in hearing.

1.2. Application

This COP applies to all personnel working for Strike.

1.3. Definitions

Occupational Exposure Limits (OELs): define a worker's maximum permitted daily exposure to noise without hearing protection. For the purpose of this COP, a noise-exposed worker is one who is exposed to noise levels exceeding 85 dBA L_{ex} as a time-weighted average over 8 hours.

L_{ex} Measurement (or noise exposure level): averages a worker's total exposure to noise over the entire workday and adjusts it to an equivalent 8-hour exposure. In other words, a worker exposed to 88 dBA for 4 hours or 91 dBA for 2 hours would be exposed to 85 dBA L_{ex} (an exposure equivalent of 85 dBA for 8 hours).

Noise Measurement Standard: noise must be measured in accordance with the Canadian Standards Association's (CSA) Noise Measurement Standard Z107.556-94 (Procedures for the Measurement of Occupational Noise Exposure).

2. Responsibilities

Strike will provide Hearing Loss prevention training, audiometric testing and keep records for all employees who are noise exposed. Strike will not provide training, audiometric testing or keep records for contractors working at Strike work sites. Contractors shall maintain an equivalent program of their own and advise Strike of any deterioration in hearing. Contractors will comply with the use of hearing protection in all posted areas.

The Manager or designate will be the program administrator and will be responsible to implement the control methods identified within this COP in their Business Unit in conjunction with new hire requirements as outlined by Human Resources (HR). Managers must consult with HR if an employee with abnormal hearing could be at risk while performing assigned duties.

It is the responsibility of the Manager or designate to ensure pre-placement testing has been completed and to provide regular follow-up audiometric testing to meet the standards identified in the COP. Regular follow-up audiometric testing will occur annually for employees in British Columbia, and every 2 years for employees in Alberta and Saskatchewan, unless the results of the audiometric tests indicate further testing is required.

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Employee responsibilities include:

- a) As a minimum, wearing hearing protection in noise-posted and or designated areas.
- b) Participating in audiometric testing.
- c) Reporting any concerns as they relate to noise hazards sources and hearing concerns in the workplace.
- d) Participating in Noise Control and Hearing Conservation COP training requirements within the first 6 months of hire and follow-up as directed by their Manager.

The Health Safety and Environment (HS&E) Department has the responsibility:

- e) To evaluate the effectiveness of the Noise Control and Hearing Conservation COP.
- f) Be responsible for the development and delivery of Hearing Loss Prevention Training.
- g) Conduct noise level surveys and establish noise level inventory for Strike equipment and facilities/worksites.

3. Practice and Guidelines

3.1. Noise Level Surveys

The Manager or designate will ensure noise level surveys are conducted at:

- a) All Strike facilities and equipment.
- b) All new facilities and after equipment changes that may potentially impact noise levels.
- c) Following process changes and expansions.
- d) At least every 5 years.

A worker affected by noise at the workplace must be able to access a copy of the workplace noise measurements on request. A copy of the measurements must be kept on file.

In all environments that exceed 100 dBA, it is recommended that octave band analysis be conducted. In these situations qualified third party services will be used.

3.2. Posting of Signs

Noise levels that regularly exceed 85 dBA will be identified with a clearly visible warning sign located at all the entrances.

- a) Saskatchewan regulations OHS 111 sub (5) require signage to be posted in areas where noise levels are in excess of 80 dBA.
- b) Any area where noise levels exceed 100 dBA will be clearly posted with signs requiring the use of double hearing protection.
- c) A standardized hearing protection sign will be used throughout the operations. Equipment that exceeds regulatory noise levels will have decals adhered in a visible area. Information on this sign/decals is provided in **Appendix A**.

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3.3. Noise Controls

Methods of maintaining noise levels at or below regulatory requirements by engineering designs will be investigated for all new equipment, expansions and or facilities.

When possible, work normally required in noisy areas will be conducted during equipment shutdowns or on other occasions when noise levels are reduced.

If engineering or administrative controls are impractical, then hearing protection will be used as a means of reducing exposure to noise.

3.4. Personal Protection

Hearing protection shall be worn at all times in posted areas. No exceptions shall be made regardless of the duration of the exposure.

Double protection is required for all environments that exceed 100 dBA. It is recommended that exposure durations be limited.

Hearing protection must be provided and meet the requirements of CSA Standard Z94.2-02, Hearing Protection Devices - Performance, Selection, Care, and Use. The selection must be the appropriate class and grade (OHS Regs, Schedule 3, Table 2).

With regards to hearing protection Strike will hold itself to the higher standard.

The following types of hearing protection will be acceptable:

Less than 60 to 80 dBA	80 - 100 dBA	100 dBA +
Recommended but not required	Ear plugs <u>or</u> ear muffs meeting CSA standard Z94.2-02 (Hearing Protection Devices – Performance, Selection, Care and Use).	Ear plugs <u>and</u> ear muffs meeting CSA standard Z94.2-02 (Hearing Protection Devices – Performance, Selection, Care and Use).

3.5. Hearing Evaluation

Any employee working or has the potential to work where noise levels exceeding the 85 dBA (80 dBA in Saskatchewan) will have a baseline audiogram. The purpose of baseline testing is to establish a measurement of the worker’s hearing and then to monitor the worker’s hearing at regular intervals to detect changes in hearing ability.

New employees shall undergo baseline audiometric testing within six months of hiring and then again within one year.

If an employee becomes noise exposed as a result of a transfer, the Supervisor will advise the HS&E Advisor so that an audiogram may be scheduled.

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All employees will be notified (in confidence) within 60 days of their results and within 30 days if the audiogram was abnormal or if there was any abnormal shift. Any necessary medical follow-up and recommendations will also be provided at that time.

If an employee routinely works in an environment that exceeds 100 dBA, it is recommended that, twice-annual audiometric testing be provided (CSA Standard Z94.2-02, Page 31, Table 4).

3.6. Record Keeping

Audiometric testing results and personal noise dosimetry results will be kept in the Corporate HR Hearing Conservation files for the duration specified in the regulations.

Noise level surveys for the evaluated facility must be kept in the facility file. This information must be available to all workers.

4. Evaluation and Effectiveness

The HS&E Manager will ensure that an annual evaluation of the program is conducted and will take into consideration:

- a) Review of worker observation and inspections,
- b) Compliance with company standards,
- c) Review of Internal Health & Safety Management System Evaluations and or Audits,
- d) Audiometric testing results,
- e) Feedback from HS&E, employees and management, and
- f) Analysis of event reports.

Responsibility for updating this COP, based on the evaluation process, rests with the HS&E Department.

5. **Appendix A -Hearing Protection Signs**

Wherever noise exceeds the regulated limit, a suitable warning sign which indicates that hearing protection is required must be posted. Standard hearing protection symbols recognized by the CAN/CSA Standard Z-321 are shown below. Any approved sign may be used.



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**PPE
TRAINING**

CSA Approved Hearing Protection
Use, selection, and care of Hearing Protection
Use of Noise Level Meters (HSE Advisors)

HAZARD / SOURCE

Noise



Explosive Atmosphere



ADDITIONAL INFORMATION AND REGULATIONS

Strike SWP-10 Noise
Strike CF-S-13 Noise Exposure Measurement Record

Developed by: John Artym _____ Date: May 11, 2011

Revised by: HSE Department _____ Date: March 26, 2012
HSE Committee _____ September 24, 2020
