

## SAFETY SHEET # 14

### NOISE EXPOSURE

Consult the *Ontario Occupational Health and Safety Act and its Regulations, more specifically the Industrial Establishments – Reg 851 (s. 139)*, as well as the relevant *CSA Standard (Z107.56-94; Z94.2-94)* for detailed information on noise levels.

Effective July 1, 2007, Ontario revised the noise legislation detailing the maximum time that a worker can be exposed to specified noise levels. These changes to Regulation 851 (s. 139) of the Ontario Occupational Health & Safety Act allow for a more accurate method to measure noise levels and are intended to prevent noise induced hearing loss in the workplace. The changes implemented are as follows:

A **decibel** (dB(A)) is a unit of measurement of sound pressure level that is equal to 20 times the logarithm to the base 10 of the ratio of the pressure of a sound, divided by the reference pressure of 20 micropascals

The **exchange rate** is the amount by which the permitted sound level may increase if the exposure time is halved (Please see the “*New Ontario Noise Exposure Table*” below). Currently, the exchange rate in use in Ontario is 3 dB(A). \*

A **competent person** is defined by the Ontario Occupational Health & Safety Act as a person who (i) is qualified because of knowledge, training and experience to organize the work and its performance; (ii) is familiar with this Act and the regulations that apply to the work and (iii) has knowledge of any potential or actual danger to health & safety in the workplace.

*New Ontario Noise Exposure Table*

Allowable Exposure Level 3 dB(A) Exchange Rate*	Maximum Permitted Daily Duration (hours)
85	8
88	4
91	2
94	1
97	0.5
100	0.25

\*As noted, should the time exposure value decrease by half (for example from eight hours to four hours) then the maximum allowable exposure limit increases by 3 dB(A).

Where applicable, employers must take “all measures reasonably necessary in the circumstances to protect workers from exposure to hazardous sound levels” (O. Reg. 851 s. 139(3)). There are three main ways to accommodate this requirement:

- **Engineering Controls** – this involves the physical change of something on / around the equipment; the noise level is controlled at the source; this is the preferred method
- **Administrative Controls** – this method involves limiting the time that the worker(s) is exposed (such as shorter shifts, worker rotation etc.)
- **Personal Protective Equipment** – the worker(s) wears protective devices such as ear plugs, ear muffs etc. This is the last resort to protecting the worker(s) and *shall only be used as a temporary solution* to the noise exposure. Users shall be fully trained in the selection, use and care of any such equipment.

If the noise level of an operation be at, or in excess of 85 dB(A), a clearly visible warning sign shall be posted at every approach to the area.

**Should you have any questions or concerns about the noise level at your workspace, please feel free to contact the Office of Risk Management, Environmental Health & Safety at 613-562-5892 or at [safety@uottawa.ca](mailto:safety@uottawa.ca)**

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