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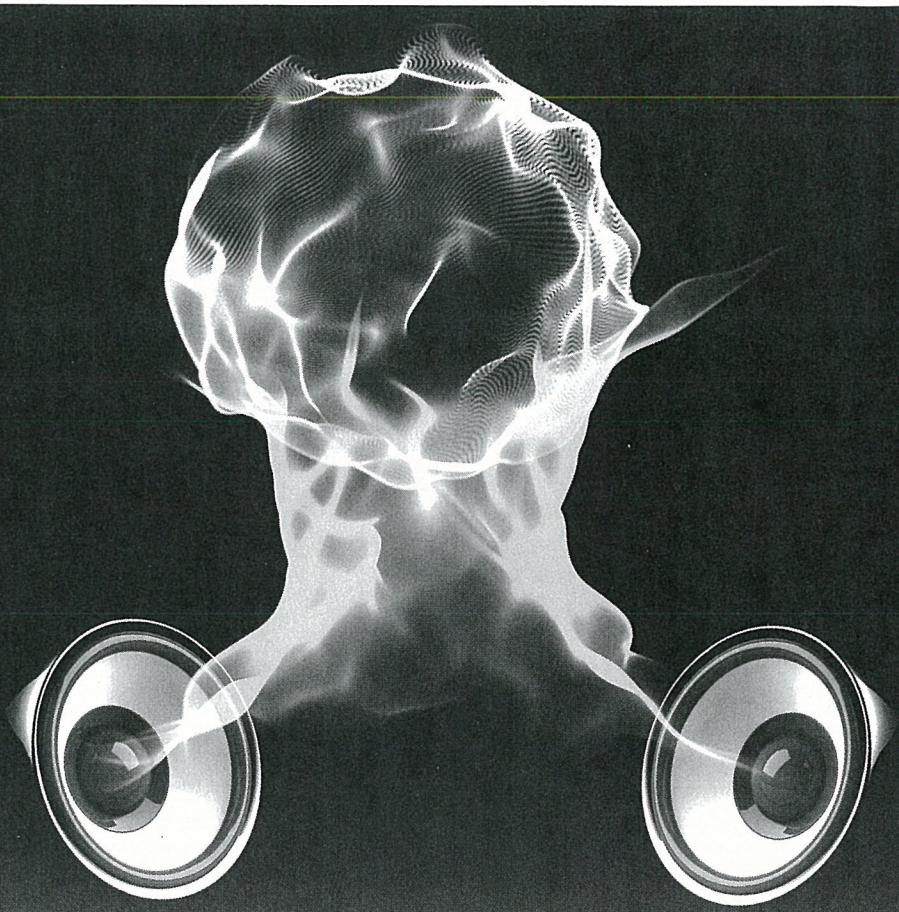

Tough on Noise

Reduce hearing loss in the workplace

Industrial workplaces in some jurisdictions, including Ontario, are under legislative pressure to become quieter. This is in response to growing scientific understanding of the effects of noise levels previously thought to be non-harmful. For example, consider tougher noise-level standards in Ontario's Occupational Health and Safety Act (OHSA), which took effect on July 1, 2007. The new legislation applies to industrial workplaces and offshore oil and gas operations.

Ontario's new regulations mandate a maximum noise level, which is a 68 percent reduction in acoustic energy (for an eight-hour shift) from what was previously allowed, as well as a reduced exchange rate that allows a trade-off between noise levels and exposure times. The regulations also stipulate that providing personal-protective equipment (PPE) isn't sufficient if existing noise levels exceed the newly regulated limits. Instead, worker noise exposure levels must fall within the new standard without the use of PPE.

Ontario's last major change to its hearing-protection legislation goes back to the 1970s. Many workplaces that met the old requirements will likely have some major changes to make if they're to comply with the new ones. It's this need for capital expenditures and changes to workplace procedures, which is moving the issue of hearing loss from the health and safety department into the corporate boardroom.

LEGAL FRAMEWORK

Following the general framework of OHSA, responsibility for compliance falls to all people in the workplace, including employees to the supervisor to the employer and owner. For example, if the employer tells front-line workers to follow specific procedures to minimize noise exposure and workers wilfully fail to do so, they themselves may be out of compliance.

If a noise-attenuation device fails on a piece of equipment and

the shift supervisor doesn't take immediate steps to have it repaired or the machine shut down until it can be repaired, he/she could be held responsible. If the company owner decides to forego the cost of buying quieter equipment, responsibility for a violation could be placed at that person's door.

Any person responsible for compliance must demonstrate "due diligence" in complying with the legislation. The person need not meet a standard of perfection, but "reasonable" steps must be taken. In general, hearing-protection compliance (as with other workplace health and safety issues) can be accomplished in three stages, starting with assessment of the situation.

Since past compliance is no comfort in light of the new noise levels, any questionable workplace must be assessed to see if noise levels meet the changed criteria. The legislation sets out a complex formula for calculating noise levels. It's unlikely that most workplaces will have the equipment and skills to undertake the assessment. As a result, outside help may be required.

After assessment, appropriate instruction usually follows, in which management, supervisors and front-line workers, are made aware of their rights and responsibilities to ensure compliance. The third stage is implementation. This can include installation of new equipment, the addition of noise-attenuation measures or the implementation of changes in the way work is conducted at the facility.

At all stages, appropriate follow-up is essential. For example, it isn't sufficient to go by the manufacturer's claims regarding the equipment's noise level, as these are generally established under ideal conditions (i.e. free-field conditions) that don't accurately simulate the floor of a "real" factory. Post-installation measurement is essential. Similarly, steps must be taken to ensure that workers understand and are following the given instructions.

In any prosecution in which due diligence is a defence, it's the responsibility of the person relying on the defence to prove on a balance of probabilities that he/she exercised due diligence. A good paper trail is essential. This can include conducted assessments, advice sought, options considered, instructions provided, supervision given and other such steps that form the basic building blocks of a successful defence pertaining to due diligence.

SOLID NUMBERS

In determining workplace noise levels, usual practice is to fit several employees with "dosimeters." These are portable electronic devices that sample, at perhaps one-second intervals, the noise level experienced by the wearer. The field data is downloaded to produce a stream of information on noise levels. Noise professionals can then see what portion of the day, if any, was spent at or above the regulated noise levels.

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If done incorrectly, this approach can provide misleading results that may indicate a problem where there really is none. Perhaps, the employee went out to his or her vehicle at lunch and spent some of the time listening to music at high volume. This would show up in the charts as a high-noise period. Or the employee opened a sound-shield on a piece of equipment to service it. Again, your dosimeter will register a high level of noise.

It's best to have a record-keeper accompany the employee through the workday. He/she will determine where, when and how the various noise levels were experienced. These efforts help generate a map of "hot" spots or problem areas that need extra attention. This person can also indicate procedures that may need to be changed to keep experienced noise levels within standard, such as ensuring that equipment can be serviced without subjecting the employee to greater noise.

Richer data (that includes context and reasons) assists in understanding the factors for "outlier" data points that differ greatly from the rest of the information, so they can be safely ignored as errors, or reasons discovered. Action can then be taken. Again, given the complexity of the science behind noise levels, it's important to know which in-house tasks to keep and which to outsource to a third-party provider.

Industry workplaces must be aware of the new obligations, as well as prepare to show that they've taken all reasonable steps to ensure compliance.

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