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You've Completed an OH Assessment, now what?

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Topics

- Who is WSPS?
- Overview of Occupational Hygiene (OH) Assessments
- Review common recommendations in noise and air reports
- What the legislation says (specific to the recommendations)
- Hierarchy of Controls (HoC) and examples for each (noise and air)
- Example document HoC review
- Customer example, real-life implementation of controls
- Questions

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A Little About What We Do……..

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Microsoft, 2026

Exposure Assessments

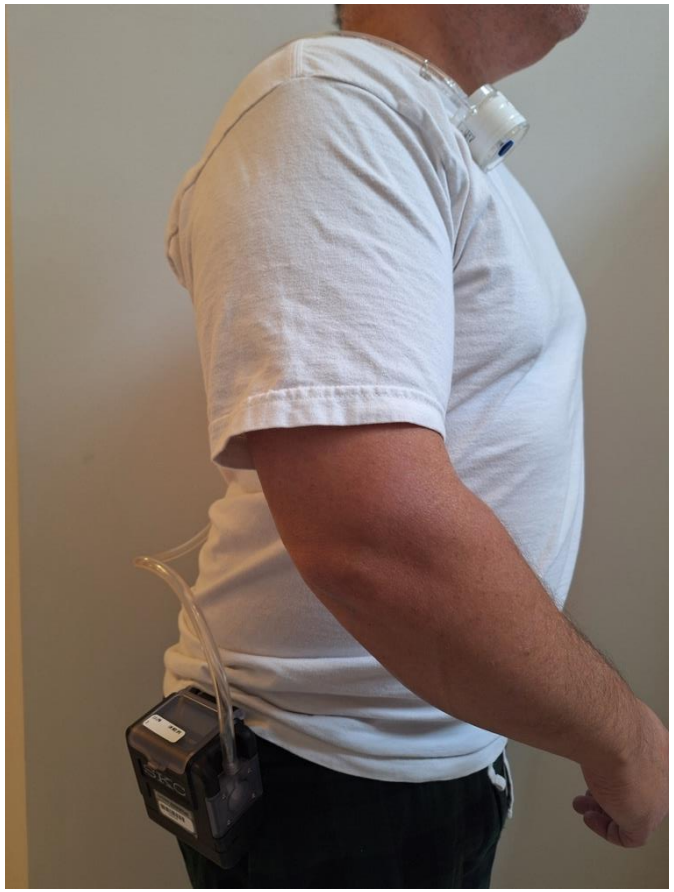


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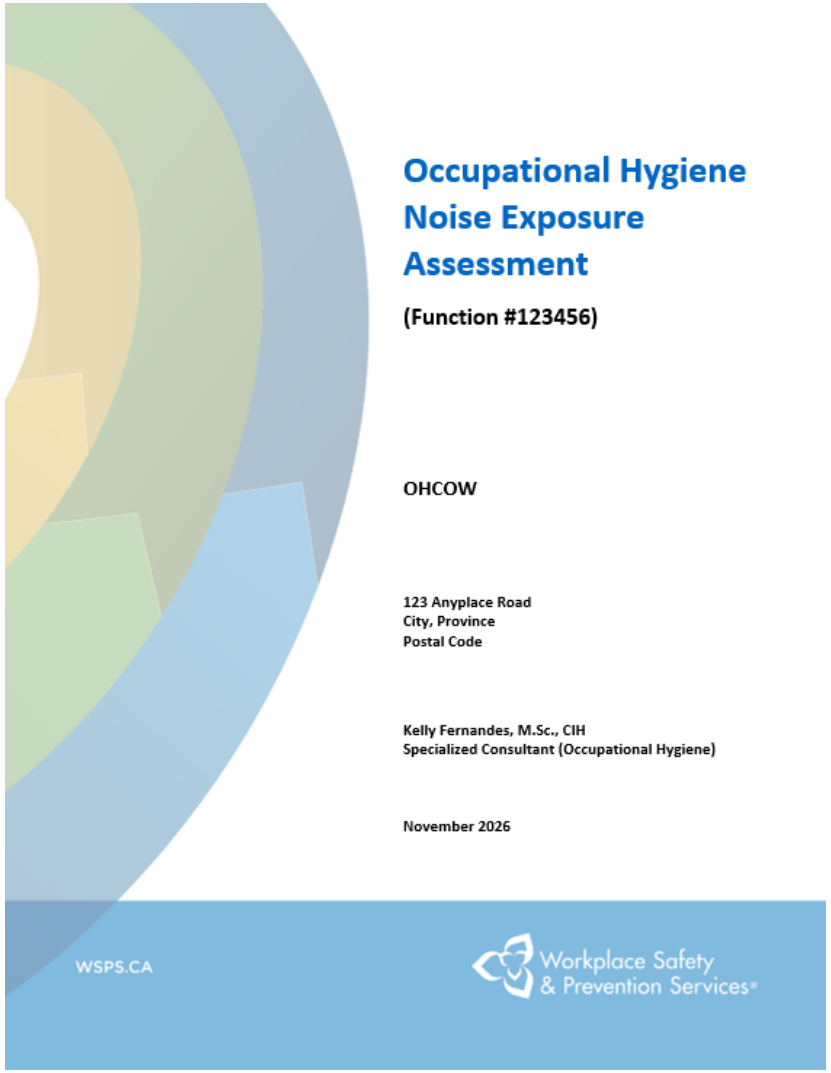
Personal Sample

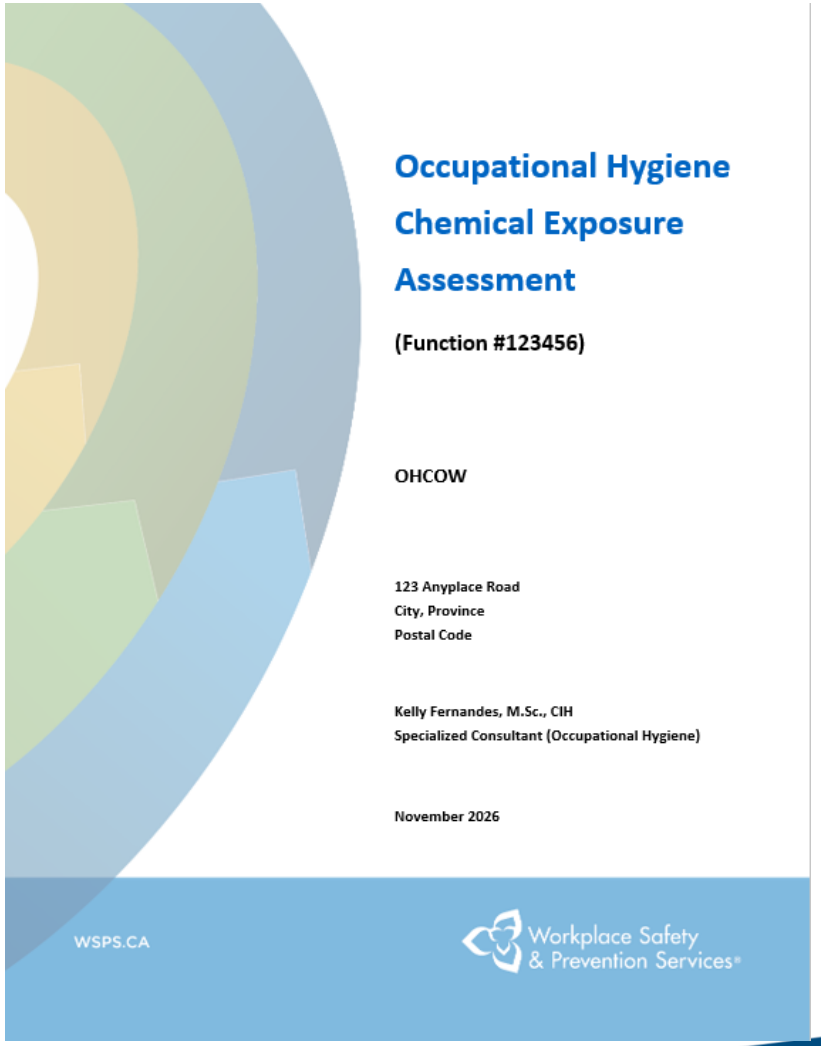


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Noise and Chemical Exposure Assessments





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Poll Question

- Have you completed an OH Assessment at your facility?

Yes

No

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Poll Question

- Which type?

Air (chemical exposure)

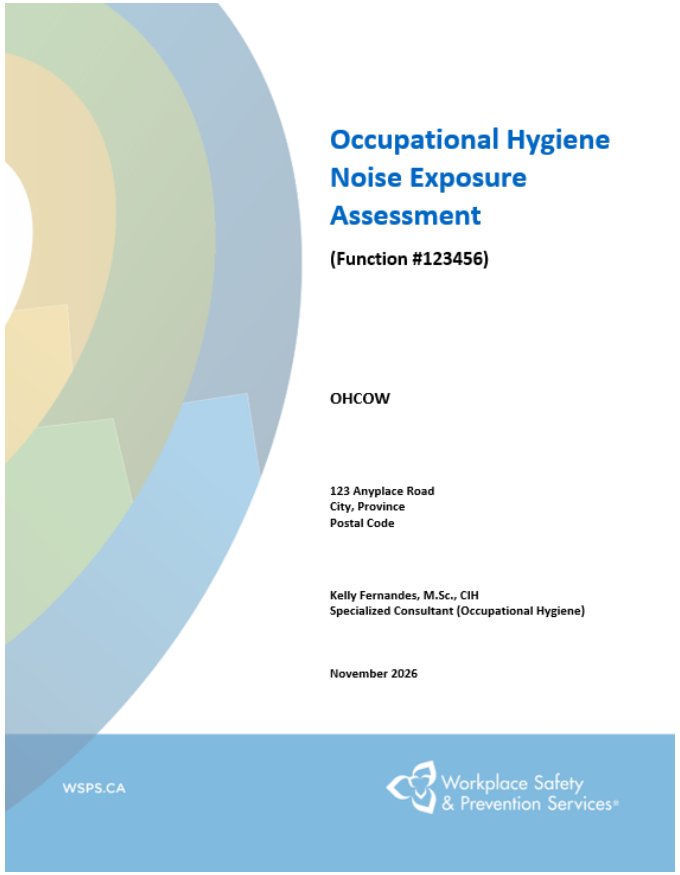
Noise

Both

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Noise Assessment Common Recommendations

- Noise in your facility (or specific areas in your facility) exceeds 85 dBA and controls should be implemented to protect workers
- Examine ways to control the noise at the source or along the path
- Implement and/or review the selection of hearing protection



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REFLECTION

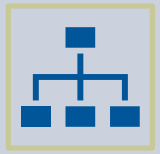
- Short Answer – If you received these recommendations what would you do first?

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Ontario Regulation 381/15



Every employer shall take all measures reasonably necessary in the circumstances to protect workers from exposure to hazardous sound levels.



The protective measures shall include the provision and use of engineering controls, work practices and, subject to subsection (5), hearing protection devices.



…….every employer shall ensure that no worker is exposed to a sound level greater than an equivalent sound exposure level of 85 dBA, $L_{ex,8}$.

Noise, R.R.O. 2015, Reg. 381/15

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Ontario Regulation 381/15

The employer shall protect workers from exposure to a sound level greater than the limit (85 dBA) without requiring them to use and wear hearing protection devices.

Noise, R.R.O. 2015, Reg. 381/15

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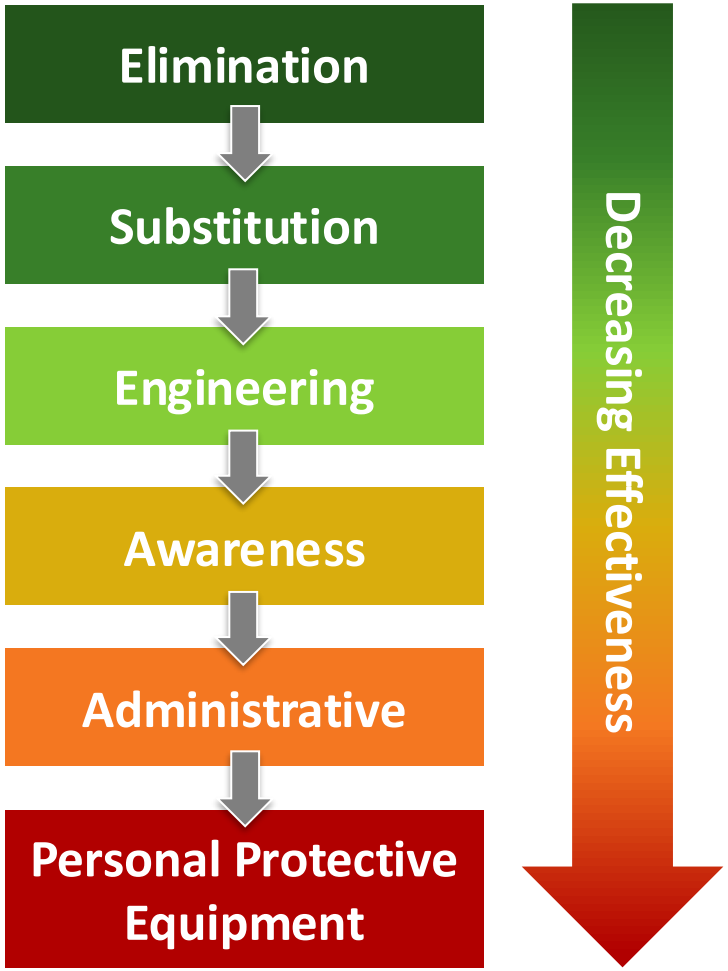
Reliance on hearing protection may be appropriate where it has been determined that:

- **Controls are unavailable** – suitable engineering controls do not exist or cannot be obtained.
- **Controls are not reasonable or practical** – due to the duration or frequency of exposure, or the nature of the work or process.
- **Controls temporarily fail** – such as during a breakdown or malfunction.
- **An emergency occurs** – existing controls are unable to adequately control the noise exposure.

Noise, R.R.O. 2015, Reg. 381/15

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Hierarchy of controls



Can you **eliminate** the noise source? Remove the item generating noise.

Can you **substitute** the noise source? Replace the item generating noise

Can you add **engineering** controls to control the noise source? Enclosing a machine, adding baffling, installing noise reducing air nozzles on compressed air guns, etc.

Signs posted at entrances to noisy areas, **training, rotating** workers out of nosiest areas

Hearing protection (ear plugs/earmuffs)

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REFLECTION

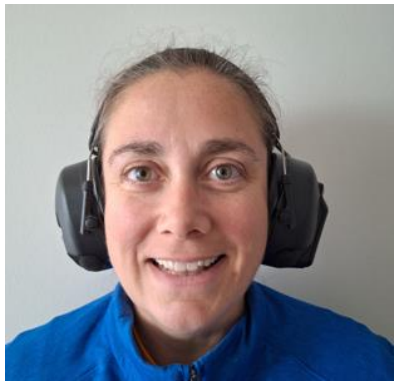
- Short Answer – thinking about the recommendations and the HoC. What would you do first?

  - Noise in your facility (or specific areas in your facility) exceeds 85 dBA and controls should be implemented to protect workers
  - Examine ways to control the noise at the source or along the path
  - Implement and/or review the selection of hearing protection

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Action Plan

Noise in your facility (or specific areas in your facility) exceeds 85 dBA and controls should be implemented to protect workers



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- ***Quick win*** – provide HP to workers. Provide a variety of HPs to ensure fit, comfort and appropriate protection for the noise they are exposed.
- ***Quick win*** – train the workers on HP proper use and care.

Noise, R.R.O. 2015, Reg. 381/15

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Action Plan

Implement and/or review the selection of hearing protection



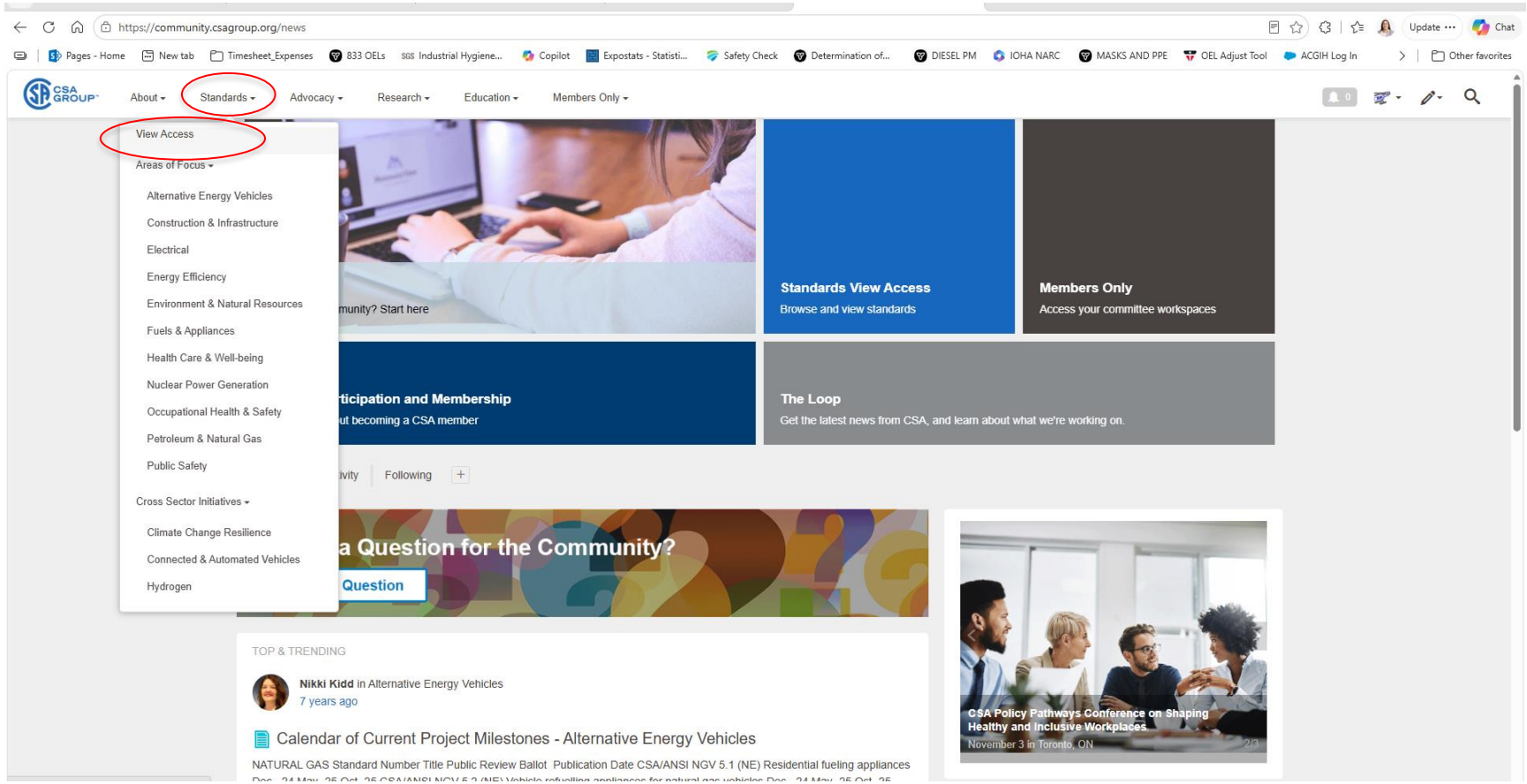
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- When choosing HP, need to ensure you are providing the correct type for the noise exposure.
- Refer to the CSA Standard Z94.2-14 (R2019), *Noise protection devices – Performance, selection, care, and use*

Noise, R.R.O. 2015, Reg. 381/15

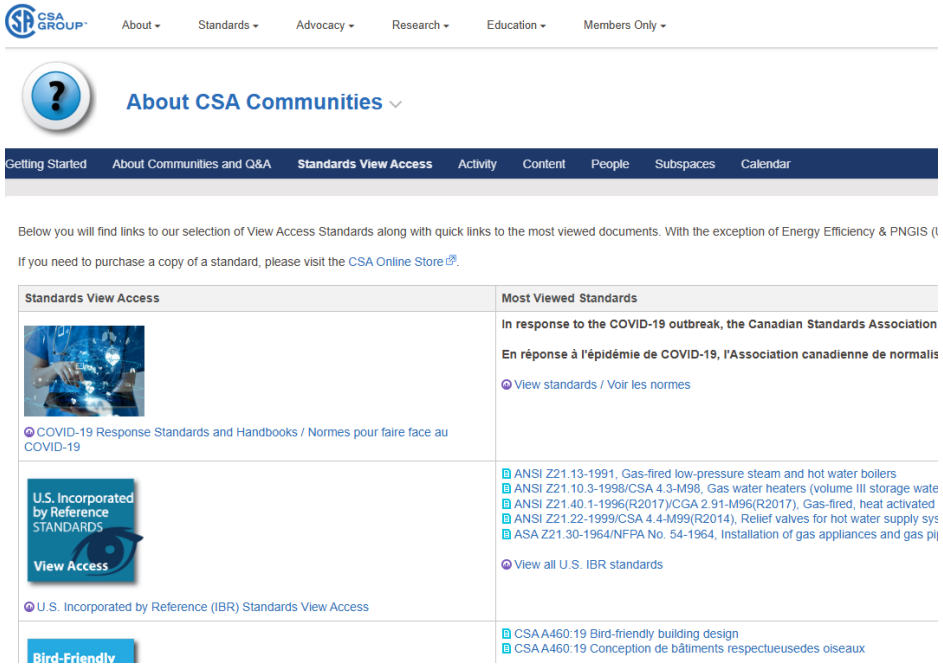
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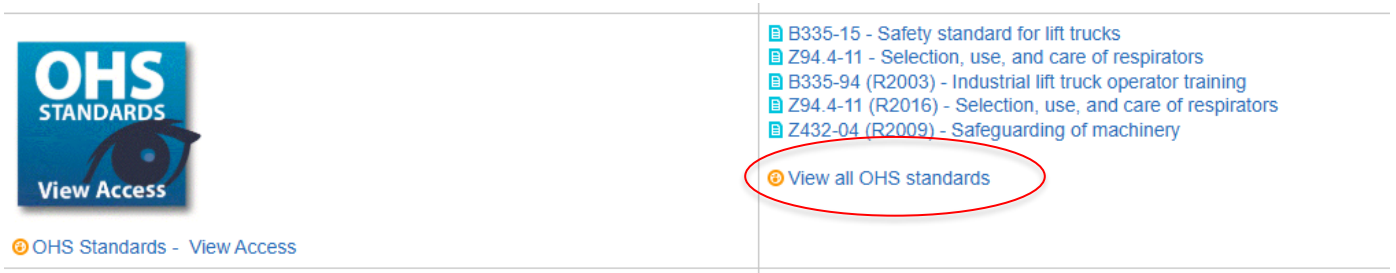
Accessing CSA Standards



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Accessing CSA Standards





- Click Ontario and you can review the CSA standards available. Hearing protection is available to review.

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Action Plan - Document

Control Measure	Feasible?	If No, Why?	Plan
Elimination	No	Key machinery is required for production.	Not feasible at this time.
Substitution	In future	Replacing equipment at once is not practical.	As equipment is replaced, quieter equipment or equipment with ECs installed will be selected, where possible.
Engineering Controls (ECs)	Investigating	N/A	Retained a qualified person assess noisy equipment and recommend controls. Implement reasonable and practical controls to reduce noise.
Awareness	Yes	N/A	Posted noise warning signs at entrances to areas >85dBA and that hearing protection is required.
Awareness (Training)	Yes	N/A	Train workers on noise hazards, the effects of noise exposure, and the proper use, care and limitations of hearing protection.
Administrative	Yes	N/A	Cross trained workers in higher noise areas to rotate and reduce the amount of time an individual worker spends in high-noise areas.
PPE (Hearing Protection)	Yes	N/A	Provided a variety of suitable hearing protection for proper fit and comfort. Require hearing protection until engineering controls are installed and follow-up testing confirms exposures are below the legal limit and, ideally, the action level.

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Action Plan

Examine ways to control the noise at the source or along the path

- ***Quick win –*** Share the results with the JHSC, review action plan results, and get input
- Retain the services of a noise engineer to provide recommendations for noise controls (e.g., enclosure, baffling to stop noise from infiltrating into other areas, etc.)
- Determine if recommendations are feasible and document
- Implement engineering controls, document plan
- ***Quick win –*** Review compressed air usage/flow (e.g., mufflers on compressed tools, noise reduction nozzle on air guns, etc.)

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Hearing Loss Prevention Program (HLPP)

OHCOW Occupational Health Clinics for Ontario Workers Inc.	**Hearing Loss Prevention Program (HLPP)**		**Document #:** 123
	Rev. Date: November 2026	**Rev. Level:** *V3*	**Approved By: Process Owner**

WSPS, 2026

Details:

- Responsibilities
- Procedure for:
  - Noise Exposure Assessments
  - Management of Noise Controls
  - Audiometric Testing (best practice)
- Training
- Documentation
  - Engineering Controls Report
  - HLPP Training Sign-off
  - Audiometric testing

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Side Bar

Occupational hygiene campaign: noise

Prolonged exposures to hazardous sound levels in the workplace may cause noise-induced hearing loss (NIHL). NIHL is a preventable occupational illness. Controlling workplace exposures to noise will help lower the risk of workers developing NIHL.

Employers have a duty to take all measures reasonably necessary in the circumstances to protect workers from exposure to hazardous sound levels. The protective measures include the provision and use of engineering controls, work practices, and under certain conditions, hearing protection devices.

Campaign focus

MLITSD occupational hygienists will conduct proactive inspections to determine compliance with O. Reg. 381/15: Noise in all workplaces where workers are exposed to noise. This includes, but is not limited to, workplaces in the industrial, construction, mining and health care sectors.

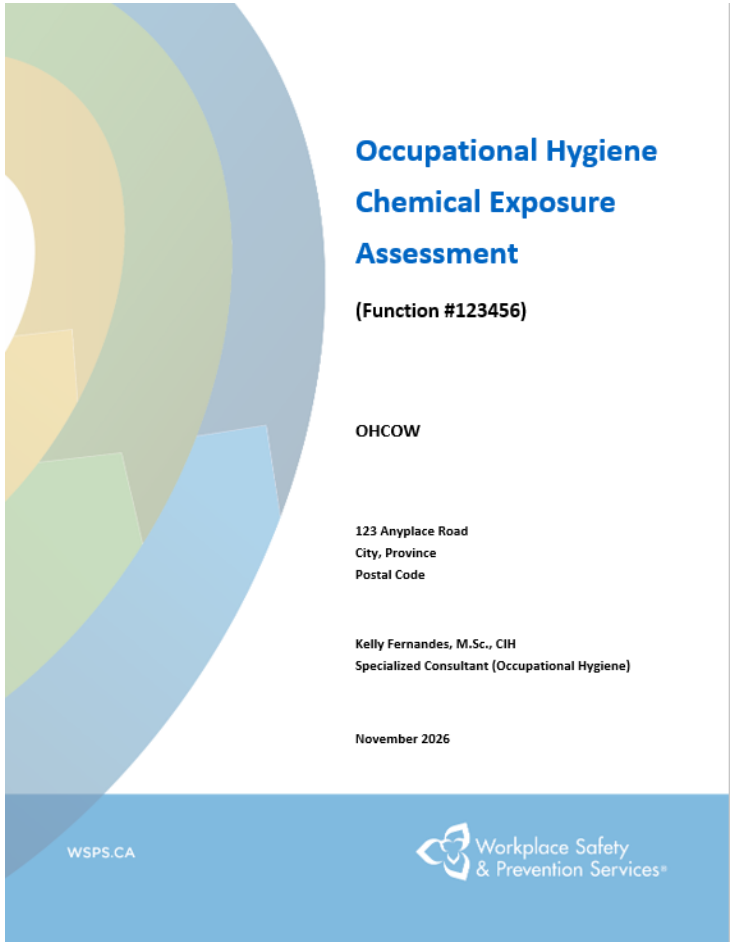
More specifically, the inspections will involve:

- assessing worker exposure to noise and ensuring that no worker is exposed to a sound level greater than the limit in O. Reg. 381/15
- emphasizing the hierarchy of controls, specifically engineering controls and work practices, in protecting workers from hazardous sound levels
- evaluating the selection, care, and use of hearing protection devices and ensuring that workers receive appropriate training on the devices
- ensuring posting of warning signs at every approach to an area where sound levels regularly exceed 85 dBA

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Chemical Exposure Assessment Common Recommendations

- Overexposure (or exposure) to a chemical agent. Implement/strengthen engineering and administrative controls.
- Conduct regular preventative maintenance on equipment and controls
- Develop a Respiratory Protection Program (RPP)



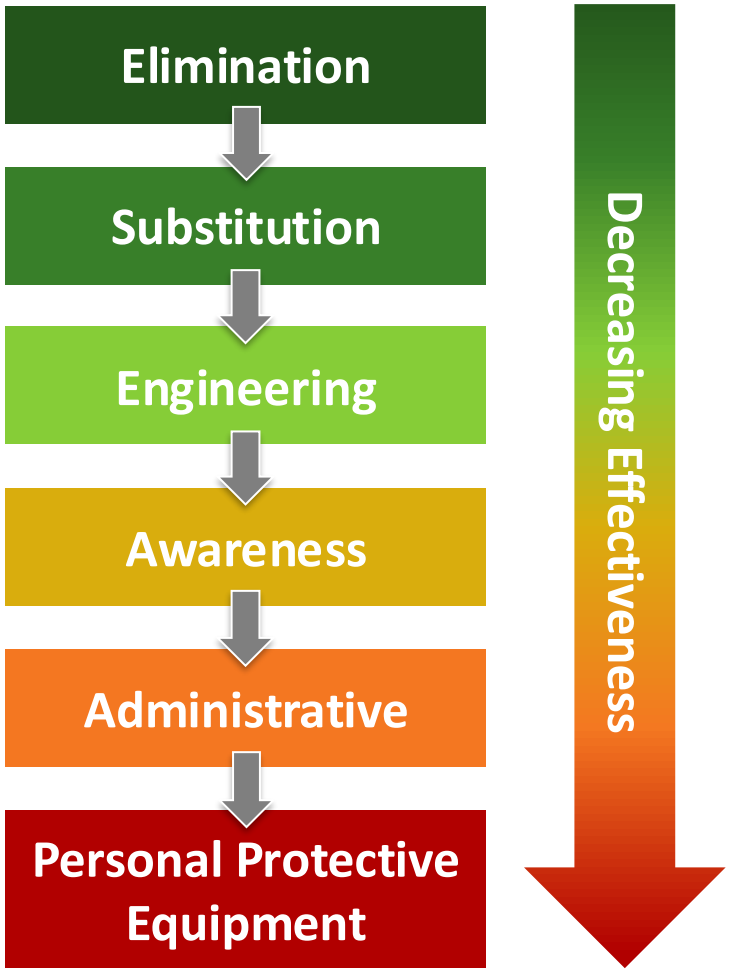
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REFLECTION

- Short Answer – You probably see similarities with the noise recommendations. Why do you think we often recommend a written RPP?

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Hierarchy of controls



Can you **eliminate** the exposure source? Stop using the product

Can you **substitute** the exposure source? Replace with a less toxic product

Can you add **engineering** controls to control the exposure source? Add exhaust ventilation that removes the contaminate before it reaches the worker.

Signs posted regarding PPE use, **training, rotating** workers

Respirators, face/eye protection, skin protection, etc.

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Ontario Regulation 833/90

Every employer shall take all measures reasonably necessary in the circumstances to protect workers from exposure to a hazardous biological or chemical agent because of the storage, handling, processing or use of such agent in the workplace.

The measures to be taken shall include the provision and use of:

- substitution of the hazardous biological or chemical agent;
- engineering controls;
- administrative controls, including work practices;
- hygiene facilities and practices; and
- if section 7.2 applies, personal protective equipment

Control of Exposure to Biological or Chemical Agents, R.R.O. 1990, Reg. 833

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Ontario Regulation 833/90

An employer shall protect workers from exposure to a hazardous biological or chemical agent without requiring them to wear and use a respirator…….

Control of Exposure to Biological or Chemical Agents, R.R.O. 1990, Reg. 833

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Before relying on respirators to protect workers from exposure, assess whether:

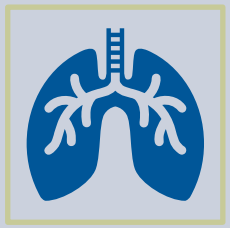
- **Substitution is not reasonable or practical** – the hazardous agent cannot reasonably or practically be replaced with a less hazardous alternative.

And engineering controls:

- **Are unavailable** – suitable engineering controls do not exist or cannot be obtained.
- **Are not reasonable or practical** – due to the duration or frequency of exposure, or the nature of the work or process.
- **Have temporarily failed** – such as during a breakdown or malfunction.
- **Are ineffective during an emergency** – and cannot adequately prevent, control or limit exposure.

Control of Exposure to Biological or Chemical Agents, R.R.O. 1990, Reg. 833

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An employer who provides a worker with a respirator shall ensure that the respirator:

- is appropriate in the circumstances for the form and concentration of airborne biological or chemical agent in respect of which the respirator is to be used;
- meets or exceeds the requirements in the regulation
- is used by workers in accordance with the requirements set in the regulation



An employer who provides a worker with a respirator shall establish written measures and procedures regarding the selection, care and use of respirators.

Control of Exposure to Biological or Chemical Agents, R.R.O. 1990, Reg. 833

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Action Plan

Overexposure (or exposure) to a chemical agent. Implement/strengthen engineering and administrative controls.

- Updating/installing engineering controls will take time. We need to protect workers now.
- Choose the appropriate respirator and filter or cartridge or both, fit test our workers and train them on the appropriate use of the equipment
- CSA Standard Z94.4-18, *Selection, Use, and Care of Respirators*

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Action Plan

Overexposure (or exposure) to a chemical agent. Implement/strengthen engineering and administrative controls.

- Implement or strengthen engineering controls (ECs)
- Depending on need: retain an engineer and ensure any pre-start reviews are completed, where applicable, as per Ontario Regulation 851
- ***Quick win –*** Manufacturer for assistance (for ECs already in place)

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Action Plan - Document

Control Measure	Feasible?	If No, Why?	Plan
Elimination	No	The product is integral to process.	Continue to review the process for opportunities to eliminate the hazardous product.
Substitution	No	Less hazardous product is currently available for the process.	Periodically review available products and substitute with a less hazardous alternative if one becomes suitable.
Engineering Controls (ECs)	Yes	N/A	Retained a qualified person to assess the process and recommend controls. Installing local exhaust ventilation to capture contaminants at the source. Follow-up air monitoring to be scheduled to confirm effectiveness.
Awareness	Yes	N/A	Posted appropriate hazard and PPE signage.
Awareness (Training)	Yes	N/A	Trained workers on the chemical hazards (site-specific WHMIS training), routes of exposure, control measures, safe work practices, and the proper use and limitations of PPE.
Administrative	Yes	N/A	Limit the number of workers exposed and decreased the duration and frequency of exposure while other controls are being implemented.
PPE (Respiratory Protection)	Yes	N/A	Provided appropriate respirators and established a respiratory protection program. Respiratory protection mandatory until effective controls are implemented and exposure monitoring confirms adequate control.

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Action Plan

Conduct regular preventative maintenance on equipment and controls

- ***Quick win –*** Preventative maintenance
- Improper maintenance of equipment and engineering controls can lead to a buildup of unnecessary contaminants.
- Customer example **quick win**!

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Action Plan

Develop a Respiratory Protection Program

- If you provide respirators, you must have a written measures and procedures as per O. Reg. 833 regarding the selection, care and use of respirators.
- Often overlooked: change out schedules of filters/cartridges
- Manufactures can assist and some even have programs to help
- Saturisk from IRSST is another example

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OH Program

OHCOW Occupational Health Clinics for Ontario Workers Inc.	Occupational Hygiene Program		Document #: 123
	Rev. Date: November 2026	Rev. Level: *V3*	Approved By: Process Owner

WSPS, 2026

Details:
Responsibilities
Procedure for:

- Chemical Exposure Assessments
- Noise Exposure Assessments
- Exposure Monitoring and Re-monitoring
- Management of Occupational Hygiene Controls
- Management of Occupational Hygiene Reports

Training
Documentation:

- Risk Assessments
- Exposure Assessment Reports
- Training Records
- Corrective Actions

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Key reminders

- Any changes to your facility or production requires re-sampling
- Implementation of controls must be carefully reviewed and used properly. Training/enforcement using controls.
- Training and enforcing proper use and care of PPE to protect your workers

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How WSPS Can Help

- OH Exposure Assessments (noise, chemical, heat stress, designated substances assessments, etc.)
- Developing site-specific WHMIS training
- Fit testing
- Program/procedure development (designated substances control programs, RPP, HLPP, OH Program, safe work procedures, PPE programs, etc.)

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Reference List

- WSPS. (2026).
- Occupational Health and Safety Act, R.S.O. 1990, c. O.1
- Noise, R.R.O. 2015, Reg. 381/15
- Control of Exposure to Biological or Chemical Agents, R.R.O. 1990, Reg. 833
- Industrial Establishments, R.R.O. 1990, Reg. 851.
- Canadian Standards Association. (R2019). Noise protection devices – Performance, selection, care, and use (Z94.2-14) Toronto, ON: CSA Group.
- Canadian Standards Association. (2018). Selection, use, and care of respirators (Z94.4-18). Toronto, ON: CSA Group.

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Reference List

- Microsoft. (n.d.). *[Illustration of workers in agriculature, manufacturing and service industries* [Stock image]. Microsoft 365.

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For all your health and safety solutions, contact:

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