

Laser Safety Q&A

During the webinar, the following questions related to radiation safety were asked. Please email info@radiationsafety.ca if you wish to discuss this further or any have any other follow up question arising from the presentation.

Q1: What training should JH&SC's have in workplaces with strong lasers?

A1: Because aspects of workplace safety with respect to lasers are regulated provincially or territorially (except in federally regulated workplaces), the requirements for Joint Health and Safety Committees will vary by province or territory. The Canadian Centre for Occupational Health and Safety has a good summary of general requirements of committee members by jurisdiction:

<https://www.ccohs.ca/oshanswers/hsprograms/hscommittees/creation.html>.

With respect to laser safety in a workplace with a Class 3 or 4 laser, many jurisdictions have requirements for a Laser Safety Officer and a laser safety program. The following standards would help in developing a laser safety program:

- The CSA Standard CSA-Z94.3.1-16: Guideline for selection, use, and care of eye and face protectors
- CSA-Z386-14:20: Safe Use of Lasers in Health Care
- CSA Standard Z305.13-13 (R2020) Plume scavenging in surgical, diagnostic, therapeutic, and aesthetic settings
- The American National Standards Institute (ANSI) Standard Z136.1-2014: Safe Use of Lasers
- ANSI Z136.3-2018: Safe Use of Lasers in Health Care
- ANSI Z136.7-2020: Testing and Labeling of Laser Protective Equipment.

The members of the committee may not have to know all details of the laser and its use, but they should have a knowledge of what a laser is, the classes of lasers and what class their laser(s) are, and the health hazards associated with the laser(s) in use at the workplace. They should also know details of the laser safety program including engineering controls, warning signs, administrative controls, and PPE. By being familiar with beam and non-beam hazards and how to mitigate for them, they can support workers in performing their duties safely.

Q2: Does UV PPE (goggles) get less effective over time?

A2: Laser safety goggles do not come with an expiry date. That being said, they can become unusable with time due to wear and tear. Signs that you should replace your goggles include marks on the lenses, such as scuffs, scratches, or hazing. They should not have any marks or imperfections on the lenses that can impede your vision. ANSI Z136 requires that goggles have protection markings, so if they wear off you must either replace the goggles or the markings. If there are any cracks in the frame or either lens, or if the strap or an arm is damaged, they should also be replaced. As different workplaces have different physical demands, the time it would take a pair to get to the point of replacement will vary.