SAFETY FOCUS

LASER SAFETY

Laser light differs from ordinary light, in that it is a monochromatic, directional, and coherent beam of light. Lasers pose a greater hazard than ordinary light as they can deposit a large amount of energy into a very small area. EHS Radiation Safety oversees the use and storage of all Class 3B and Class 4 laser sources at the University of Utah through the Laser Safety Program.

WHO: Any person who plans to work with Class 3B or Class 4 lasers at the University of Utah is required to receive the appropriate laser safety training prior to engaging in laser-related work. Also, these individuals may only perform this work under an approved Laser Work Permit.

WHAT: Laser Work Permits are issued to a qualified individual, typically the Principal Investigator (PI) will be the Permit Holder. The Permit Holder is responsible for any use of lasers in their lab. EHS Radiation Safety has oversight over the Permit Holder to ensure permit conditions are met. EHS considers the following as Class 3B or Class 4 laser sources:

- Lower Class embedded laser or cabinet laser that contain a Class 3B of Class 4 laser
- Class 3B or Class 4 labeled equipment that are used inside or outside, for any purpose (including demonstrations/entertainment)
- Lab-made (i.e. developed 'in-house") or modified lasers whose output exceeds the MPE for a Class 3B laser.

HOW: Contact EHS Radiation Safety to acquire a Laser Work Permit. The Laser Safety personnel will guide you through the permit registration and training process. In addition, EHS will set up a time to conduct an initial walk-through and consultation to ensure the laser system meets all requirements.

WHEN: Using or storing Class 3B or Class 4 lasers must be approved by EHS Radiation Safety/Laser Safety Officer before these actions are allowed to take place.

WHY: The University's Laser Safety Program is established to ensure a safe laser use environment for students, faculty, staff, visitors, and the community. Initial walk-through inspections will allow us to correctly assess your laser(s) in the space of intended use. We will be able to determine the laser-controlled area and nominal hazard zone, and required engineering, administrative, and procedural controls. Some common issues found associated with non-conformance/non-compliance are the following:

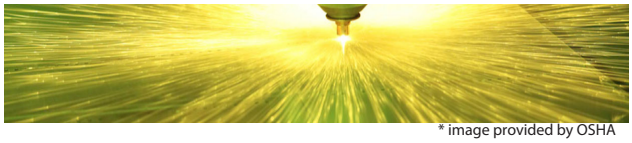
- Improper or incomplete training
- Improper signage
- Improper barriers (and their associated required rating)
- Improper or damaged eyewear
- Non-beam hazards that need to be addressed

OSHA has formed an alliance with ANSI to ensure compliance with the ANSI laser standards are required. In addition, lasers of these higher classes create potential beam and non-beam hazard that can negatively impact individuals, facilities, and the ambient environment.

OSHA General Duty Clause: https://www.osha.gov/laws-regs/oshact/section5-duties

ANSI Z136 Standards: https://www.lia.org/resources/laser-safety-information/laser-safety-standards/ansi-z136-standards

University Policy: University Policy 3-300



* image provided by OSHA

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