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Laser Pointer Awareness

The use of laser pointers has become widespread at Stanford University Campus and Medical Center at Stanford. They are great and useful tools for educators in the classroom and at conventions and meetings, under the right circumstances. However, laser pointer can be personal property or Stanford property. Whether you use your own or one owned by Stanford you are still responsible for its safe use.

While the majority of the laser pointers contain low to moderately powered diode lasers, more powerful lasers can be found on the market, usually imported from other countries. These pointers present a significant potential for eye injury and are often not properly labeled according to FDA regulations.

There are currently no restrictions for purchasing laser pointers in the United States. The FDA has issued a warning for laser pointers, urging that the pointers be used as intended, not as toys, and not by children unless under adult supervision.

Relatively inexpensive battery operated hand-held laser “pointers” that are Class 3B (some Class 4) are now commercially available, which are well in excess of the 5mW legal limit for laser pointers. These devices can be very dangerous. Some of these lasers emit green beams from frequency doubled Nd:YAG lasers operating at 532 nm and have emissions significantly exceeding the maximum permissible exposure (as per the ANSI laser standard, Z136). One of the lasers has a filter in the cap, which, if removed, allows the laser to emit both 532 nm and 1064 nm beams, in excess of 15 mW, making it an even more hazardous than class 3B.

The following guidelines must be understood and followed:

Below is a list of guidelines offered by SLAC:

- Laser pointers must be labeled with either a caution label used for Class 2 hazard and some Class 3R hazard laser pointers, or with a danger label used for some Class 3R laser pointers.
- Those with a caution label are safer to use because the normal blink response of the eye when exposed to bright light is considered sufficient protection. However, they should be used with caution and never stared into.
- Those with a danger label can cause temporary flash-blindness, after images and glare responses. Permanent damage is possible if the beam is stared into.
- Never point a laser pointer at a person.
- Laser pointers are not toys. Juveniles should not be allowed to use them unless adequately supervised.
- When choosing a laser pointer it is the best practice to pick a Class 2 hazard laser with a caution label.

Go to the links below for more safety awareness, use and purchase your laser pointer.

<http://www.rli.com/resources/articles/pointer.aspx>

http://www.laserinstitute.org/subscriptions/safety_bulletin/laser_pointer/

<http://web.princeton.edu/sites/ehs/LabPage/laserpointersafety.htm>