



## KCA TOOL BOX TALK: Laser Safety

The word LASER stands for Light Amplification by the Stimulated Emission of Radiation. The special properties of a laser's beam of light are what make the laser potentially harmful to the eyes and skin.

Employees that work with or near medium to high powered lasers (lasers that can cut through steel or mark part numbers in metal) and accidentally look directly into the laser beam or catch the beam from a reflection can burn either the front or back of the eyeball resulting in partial blindness or permanent blindness. Depending upon the power of the laser, your eyes could be injured even if you are far away from the laser beam source.

Proper PPE is necessary for medium to high powered lasers. Ordinary sunglasses will not protect you against laser light. Eye protection for laser beams must be made to protect you against the wavelength and power level that the laser is operating at. Each laser requires its own eye protection, as there is not one set of goggles or glasses that protects against all lasers. Lasers that are completely enclosed do not require eye protection.

Eye protection is not required for low power lasers. *But* accidental exposure to low power lasers (laser levels, laser pointers, laser scanners) can cause a temporary reduction in your vision like from a flash of a camera or after looking into the sun. This can affect your performance with critical tasks such operating machinery or the ability to see what you are doing and where you are walking; causing an accident to yourself or somebody else.

### Remember:

- ✓ Only qualified and trained employees shall be assigned to install, adjust, and operate laser equipment.
- ✓ Employees shall wear proper anti-laser eye protection when working in areas where there is a potential exposure to direct or reflected laser light greater than 0.005 watts (5 milliwatts).
- ✓ Employees shall not be exposed to light intensities in excess of direct staring at 1 micro-watt per square centimeter, incidental observing at 1 milliwatt per square centimeter, and diffused reflected light at 2 1/2 watts per square centimeter.
- ✓ Employees shall not be exposed to microwave power densities in excess of 10 milliwatts per square centimeter.

For more information visit OSHA REGULATIONS: 1926.54

### Signatures

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***Teamwork Improves Safety!***

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