

## **LASER HAZARD CLASSIFICATIONS**

The most important criterion you will use in applying laser safety control measures is the hazard classification designated by manufacturers on the equipment labels. Certain controls are required for each class (except Class 1) listed below:

**Class 1** (exempt lasers) cannot, under normal operating conditions, emit a hazardous level of optical radiation. Included in this category is laboratory equipment using lasers with all beam paths and reflections enclosed.

**Class 2**, or low-power visible laser device of 1 milliwatt, does not have enough output power to injure a person accidentally, but may injure the eye when stared at for a long period. A “caution” label must be on the device. Many HeNe lasers are Class 2 but not all.

**Class 3a** lasers—rated in power from 1 milliwatt to 5 milliwatts—cannot injure a normal person when viewed with the unaided eye but may cause injury when the energy is collected and put into the eye as with binoculars. Most laser pointers fall into this category.

**Class 4** lasers above 500 milliwatts in power can injure you if viewed directly or by viewing both the specular and diffuse reflections of the beam. A danger sign will label this laser. These lasers can also present a fire hazard. Eye and skin protection is required.

NOTE: Most surgical and cosmetic lasers fall into the “Class 4” category.