



Laser Safety Officer Course (L-222)

AGENDA

Day One- Laser Safety Officer:

Laser Concepts & Components

Fundamentals of Light

Elements of a Laser

Beam Terms & Characteristics

Radiometric Units

Temporal Characteristics

Spatial characteristics

Skin & Eye Biological Effects

Mechanisms of Interaction

Effects on the Skin and Eye

Point and Extended Source Effects

MPE Calculation Session 1 – continuous wave lasers

Day Two- Laser Safety Officer:

Review Session

Maximum Permissible Exposures (MPE)

Correction Factors

Sample Computations of Small Source MPE's using Tables 5d
Accessible Emission Limits (AEL's)

Laser Classifications

ANSI / IEC system

CDRH system

Laser Safety Standards

Federal Laser Product Performance Standard

OSHA (DOL) & State Requirements

ANSI-Z-136.1-2014 Standard

MPE Calculation Session 2 – pulsed lasers

Laser Hazard Analysis

Nominal Hazard Zones

Optical Density (OD)

NHZ Calculation Session

Day Three- Laser Safety Officer:

Review Session

Laser Accident Analysis

Overview of Laser Accidents

Case Studies of Accidents

Control Measures

Engineering

Administrative & Procedural

Protective Equipment

OD Calculation Session

Day Four- Laser Safety Officer:

Non-Beam Hazards

Physical Agents

Chemical Agents

Biological Agents

Safety Programs and Training

Medical Surveillance

Incidental & Laser Personnel

Accidental Exposure

Q&A / Evaluation