Laser Safety Officer Course (L-222)

Day One:

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:

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

Rockwell Laser Industries

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Day Three:

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:

Non-Beam Hazards
Physical Agents
Chemical Agents
Biological Agents

Safety Programs and Training

Medical Surveillance
Incidental & Laser Personnel
Accidental Exposure