

**Control Measures for the Four Laser Classes**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Control Measure** | **Classification** | | | | |
| Administrative and procedural Controls | **1** | **2** | **3a** | **3b** | **4** |
| Standard Operating Procedures (4.4.1) | - | - | - | • | ♦ |
| Output Emission Limitations (4.4.2) | - | - | LSO Determination | | |
| Education and Training (4.4.3) | - | • | • | ♦ | ♦ |
| Authorized Personnel (4.4.4) | - | - | - | ♦ | ♦ |
| Alignment Procedures (4.4.5) | - | ♦ | ♦ | ♦ | ♦ |
| Protective Equipment (4.6) | - | - | - | • | ♦ |
| Spectator (4.4.6) | - | - | - | • | ♦ |
| Service Personnel (4.4.7) | Δ **MPE** | Δ **MPE** | Δ **MPE** | ♦ | ♦ |
| Demonstration with General Public (4.5.1) | **MPE~** | ♦ | ♦ | ♦ | ♦ |
| Laser Optical Fiber Systems (4.5.2) | **MPE** | **MPE** | **MPE** | ♦ | ♦ |
| Laser Robotic Installations (4.5.3) | - | - | - | ♦ **NHZ** | ♦ **NHZ** |
| Eye Protection (4.6.2) | - | - | - | • **MPE** | ♦ **MPE** |
| Protective Windows (4.6.6) | - | - | - | • **NHZ** | ♦ **NHZ** |
| Protective Barriers and Curtains (4.6.4) | - | - | - | • | • |
| Skin Protection (4.6.6) | - | - | - | ♦ **MPE** | ♦ **MPE** |
| Other Protective Equipment (4.6.7) | Use may be required | | | | |
| Warning Signs and Labels (4.7) (Design Requirements) | - | • | • | ♦ | ♦ |
| Service and Repairs (4.4.7) | LSO Determination | | | | |
| Modification and Laser Systems (4.1.2) | LSO Determination | | | | |

**♦- Shall**

**• - Should**

**- - No requirement**

Δ- **Shall if enclosed Class 3b or Class 4**

**MPE** - **Shall if MPE is exceeded**

**NHZ** - **Nominal Hazard Zone analysis required**

**~** - **Applicable only to UV and IR Lasers (4.5.1.2)**

Updated on 12/02/2015