

**Control Measures for the Four Laser Classes**

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|  **Control Measure**  | **Classification**  |
| Engineering Controls  | **1**  | **2**  | **3a**  | **3b** | **4**  |
| Protective Housing (4.3.1)  | **♦**  | **♦** | **♦** | **♦** | **♦**  |
| Without Protective Housing (4.3.1.1)  | LSO shall establish Alternative Controls  |
| Interlocks on Protective Housing (4.3.2)  | **Δ** | **Δ** | **Δ** | **♦** | **♦**  |
| Service Access Panel (4.3.3)  | **Δ** | **Δ** | **Δ** | **♦** | **♦**  |
| Key Control (4.3.4)  | **-** | **-** | **-** | **•**  | **♦** |
| Viewing Portals (4.3.5.1)  | **-** | MPE  | MPE  | MPE | MPE |
| Collecting Optics (4.3.5.2)  | MPE | MPE  | MPE  | MPE | MPE |
| Totally Open Beam Path (4.3.6.1)  | **-** | **-** | **-** | **♦** **NHZ**  | **♦** **NHZ**  |
| Limited Open Beam Path (4.3.6.2)  | **-** | **-** | **-** | **♦** **NHZ**  | **♦** **NHZ**  |
| Enclosed Beam Path (4.3.6.3)  | None is required if 4.3.1 and 4.3.2 fulfilled  |
| Remote Interlock Connector (4.3.7)  | **-** | **-** | **-** | **•**  | **♦** |
| Beam Stop or Attenuator (4.3.8)  | **-** | **-** | **-** | **•**  | **♦** |
| Activation Warning System (4.3.9.4)  | **-** | **-** | **-** | **•**  | **♦** |
| Emission Delay (4.3.9.1)  | **-** | **-** | **-** | **-**  | **♦** |
| Indoor Laser Controlled Area (4.3.10)  | **-** | **-** | **-** | **♦** **NHZ**  | **♦** **NHZ**  |
| Class 3b Indoor Laser Controlled Area (4.3.10.1)  | **-** | **-** | **-** | **♦** | **-** |
| Class 4 Laser Controlled Area (4.3.10.2)  | **-** | **-** | **-** | **-**  | **♦** |
| Laser Outdoor Controls (4.3.11)  | **-** | **-** | **-** | **♦** **NHZ**  | **♦** **NHZ**  |
| Laser Navigable Airspace (4.3.11.2)  | **-** | **-** | **•** | **•** | **•**  |
| Temporary Laser Controlled Area (4.3.12)  | **Δ** **MPE**  | **Δ** **MPE**  | **Δ** **MPE**  | **-**  | **-** |
| Remote Firing and Monitoring (4.3.13)  | **-** | **-** | **-** | **-** | **•** |
| Labels (4.3.14 and 4.7)  | **♦**  | **♦** | **♦** | **♦** | **♦**  |
| Area Posting (4.3.9)  | **-** | **-** | **-** | **♦** **NHZ**  | **♦** **NHZ**  |

**♦- 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**

Updated on 12/02/2015