

EH&S Fast Facts

DETERMINING ENGINEERING CONTROLS FOR LASERS

Laser Classification						
Engineering Controls	1	2a	2	3a	3b	4
Protective Housing	χ	χ	χ	χ	χ	χ
Without Protective Housing	•	•	•	•	•	•
Interlocks on Protective Housing	∇	∇	∇	∇	χ	χ
Service Access Panel	∇	∇	∇	∇	χ	χ
Key Switch Master	-	-	-	-	√	χ
Viewing Portals	-	-	∞	∞	∞	∞
Collecting Optics	-	-	∞	∞	∞	∞
Totally Open Beam Path	-	-	-	-	χ	χ
Limited Open Beam Path	-	-	-	-	χ	χ
Remote Interlock Connector	-	-	-	-	√	χ
Beam Stop or Attenuator	-	-	-	-	√	χ
Activation Warning Systems	-	-	-	-	√	χ
Emission Delay	-	-	-	-	-	χ
Class 3b Laser Controlled Area	-	-	-	-	χ	-
Class 4 Laser Controlled Area	-	-	-	-	-	χ
Laser Outdoor Controls	-	-	-	-	χ	χ
Temporary Laser Controlled Area	∇	∇	∇	∇	-	-
Remote Firing and Monitoring	-	-	-	-	-	√
Labelling	χ	χ	χ	χ	χ	χ
Area Posting	-	-	-	√	χ	χ

χ - Required √ - Should - No Requirement

∇ - Must if embedded Class 3b or 4

• - Principal Investigator and EH&S must establish alternate controls

∞ - Must if maximum permissible exposure limits are exceeded

Visit www.ehs.ucr.edu for additional information or call EH&S at 827-5528 if you have any questions.