

LASER SYSTEM REQUIRED CONTROL MEASURES

Engineering Controls	1	2a	2	3a	3b	4
Protective Housing	X	X	X	X	X	X
Without Protective Housing	LSO shall establish alternate controls					
Interlocks on Protective Housing	?	?	?	X	X	X
Service Access Panel	?	?	?	?	X	X
Key Control					•	X
Protective Viewing Portals			MPE	MPE	MPE	MPE
Collecting Optics	MPE	MPE	MPE	MPE	MPE	MPE
Totally Open Beam Path					X	X
Limited Open Beam Path					X	X
Remote Interlock Connector					•	X
Beam Stop or Attenuator					•	X
Activation Warning System					•	X
Emission Delay						X
Protective Windows					MPE	MPE
Administrative Controls						
Written Laser Safety Procedures					•	X
Education and Training			•	•	X	X
Authorized Operating Personnel					X	X
Alignment Procedures					X	X
Control of Spectators					•	X
Service Personnel Training	?	?	?	?	X	X
Indoor Laser Controlled Area					X	X
Class 3b Laser Controlled Area					X	
Class 4 Laser Controlled Area						X
Temporary Laser Controlled Area	?	?	?	?		
Warning Labels (on laser housing)	X	X	X	X	X	X
Warning Sign Posting				•	X	X
Laser sign posted on laboratory				•	X	X
Protective Equipment						
Eye Protection					MPE	X
Skin Protection					MPE	MPE

X = Required

• = Recommended

? = Required if contains an embedded Class 3b or 4 lasers

MPE = required if the Maximum Permissible Exposure is exceeded

LASER SAFETY CHECKLIST

Laser Posting, Labeling and Room Control Measures	Yes	No	NA	Deficiency Noted
Entrances properly labeled and posted				
Room security				
Entryway interlock system				
Entryway interlock system functioning				
A door, blocking barrier, curtain, etc. at entry way				
Protective Windows				
Laser status indicator outside room				
Equipment Labels				

Engineering Safety Control Measures	Yes	No	NA	Deficiency Noted
Protective housing in place				
Interlock on housing				
Beam shutter present				
Key control				
Laser activation warning system (with emission delay) in place				
Remote interlock connector (emergency shutoff) available				
Laser secured to table				
Laser optics secured to prevent stray beams				
Enclosed beam path				
Limited open beam path				
Totally open beam path				
Beam barriers in place				
Beam stops in place				
Beam intensity reduced through filtration				
Reflective materials kept out of beam path				
Remote monitoring/viewing devices				

Administrative and Procedural Safety Control Measures	Yes	No	NA	Deficiency Noted
Standard operating procedures are available				
Alignment procedures are available				
Laser operated, maintained and serviced by authorized personnel				
Spectator procedures are available				
Permit holders/workers' laser safety training completed (general & specific) including certificate and record of training				
Has homebuilt/modified laser/laser system been classified				
Proper laser eye protection available				
Proper skin protection available				
Permit holders/workers' eye examination completed				

Non Beam Hazards	Yes	No	NA	Deficiency Noted
Cryogenic fluids in use				
Compressed gas in use				
Gas cylinders properly restrained				
Laser generated air contaminant (LGAC) production				
Electrical hazards				
Collateral and plasma radiation hazard				
Noise/vibration hazards				
Proper disposal of chemical wastes				