

Laser Safety Program – Self-Audit Form

Date			
Instrument			
UWin Identification Number			
Principle Investigator			
Department			
Phone Number		Email	

General Information			
Location:			1.3.2.2, 1.3.2.7, 1.3.2.8, 3.4
Manufacture:			
Model:			
Hazard Class:	<input type="checkbox"/> 1M <input type="checkbox"/> 2 <input type="checkbox"/> 2M <input type="checkbox"/> 3R <input type="checkbox"/> 3B <input type="checkbox"/> 4 <input type="checkbox"/> Unknown		1.3.2.1
Serial Number:			
Wavelength(s) (nm):			3.2.3.1(1), 4.6.2.4 (2), 8.2.1
Output Power(s) ϕ_0 :		[ignition source if $\phi_0 > 0.5W$]	3.2.3.1 (2), 4.6.2.4 (1), 7.5
Pulsed:	<input type="checkbox"/> No <input type="checkbox"/> Yes		8.2
Energy (J)			Table 2
Length (s)			Table 5a
Repetition rate (Hz)			8.2.3
Time Envelope (s)			8.2.2
Beam Diameter (cm):	_____ [check one] <input type="checkbox"/> 1/e <input type="checkbox"/> 1/e ²		3.2.3.1 (2 & 3), 4.6.2.5.1, 8
Divergence (rad):	_____ [check one] <input type="checkbox"/> 1/e <input type="checkbox"/> 1/e ²		4.3.6.1 & 8
Output Irradiance E (W/cm ²):		[ignition source if E > 10W/cm ²]	3.2.3.4, 3.4.1, 3.4.2.1-3, 7.5
MPE			3.4.1, 4.1.1, 8.2, Table 5a
Minimum OD:	_____ @ _____ nm		4.6.2.5

Administration				
Area	Y	N	Comments	ANSI Reference
1. Lasers are classified appropriately (2, 3R, 3B, 4)				1.3.2.1
2. Standard operating procedures are available				4.4.1
3. Alignment procedures are available				4.4.5, 4.4.1 (4)
4. Viewing cards are used for alignment				
5. Laser users attended appropriate training				4.4.3, 4.4.4
6. Lasers are included in inventory				1.3.2.7

Labeling and Posting – ANSI Z136.1 -2007 (Table 11a,b,c)				
Area	Y	N	Comments	Reference
1. Certification label present				
2. Class designation and appropriate warning label present				4.3.14, 4.7
3. Radiation output information on label				4.3.14, 4.7
4. Aperture label present				4.7
5. Appropriate warning/danger sign at entrance to laser area				4.3.9
6. Warning posted for invisible radiation				4.3.9

Control Measures – ANSI Z136.1 -2007 (Table 10)				
Area	Y	N	Comments	Reference
1. Protective housing present and in good condition				4.3.1
2. Beam attenuator present				4.3.8
3. Laser table below eye level				
4. Beam is enclosed as much as possible				4.3.6
5. Beam not directed toward doors or windows				
6. Beams are terminated with fire-resistant beam stops				
7. Surfaces minimize specular reflections				
8. Controls are located so that the operator is not exposed to beam hazards				

Class 3b and 4 Lasers				
Area	Y	N	Comments	Reference
1. Interlocks on protective housing				4.3.2
2. Service access panel present				4.3.3
3. Limited access to spectators				4.3.6
4. Nominal hazard zone determined				
5. Operators do not wear watches/ jewelry				
6. Viewing portals present where MPE is exceeded				4.3.5.1

Class 4 Lasers				
Area	Y	N	Comments	Reference
1. Failsafe interlocks at entry to controlled area				4.3.10.2
2. Area restricted to authorized personnel				
3. Laser may be fired remotely				
4. If present, curtains are fire-resistant				
5. Area designed to allow rapid emergency egress				
6. Pulsed- interlocks designed to prevent firing of the laser by dumping the stored energy into a dummy load				
7. CW- interlocks designed to turn off power supply or interrupt the beam by means of shutters				
8. Operators know not to wear ties around the laser				

Personal Protective Equipment				
Area	Y	N	Comments	Reference
1. Eye protection is appropriate for wavelength				4.6.2
2. Eye protection has adequate OD				
3. Warning lights viewable through protective filters				4.3.9.4.2

Non-Beam Hazards – ANSI Z136.1 -2007 (7.2)				
Area	Y	N	Comments	Reference
1. High voltage equipment appropriately grounded				7.2
2. High voltage equipment located away from wet surfaces or water sources				
3. High voltage warning label in place				
4. Compressed gases secured				7.3.2

Corrective Action Steps Needed				
#	Action	Responsible Person	Target Date	Resolved

Signatures	
Principle Investigator	
Date	
EHS Use Only	
Radiation Safety Officer Approval	
Date Follow-up conducted	