

Columbia University Medical Center Radiation Safety - Laser Audit

Date of Audit: _____
Principal Investigator: _____
Building: _____
Floor/Room #: _____

Audit Performed by: _____
Reviewed by: _____
Date Reviewed: _____

Manufacturer	Model	Type	Serial Number

Laser Registration or Appendix D

P F NA

Personnel Qualifications

Personnel who will use laser system are appropriately trained

Name	C.U.ID #	STATUS (student/staff/faculty)	Training Received (Initial/Refresher)

Comments: _____

Laser Safety Control Measures

P F NA

Administrative and Procedural Controls

- Columbia University Laser Safety Policy available/posted
- Operating Manual available
- Appropriate laser classification
- Written Standard Operating Procedures (SOP) available
- Written operating, maintenance, and alignment procedures kept with laser equipment
- Laser is registered with EHS
- Laser is included in the EHS inventory
- Laser made or modified on Campus registered with EHS
- Access limited to authorized users only
- Viewing cards for non-visible beam available
- Viewing cards are used for alignment procedures
- Operators do not wear watches, jewelry, and ties during laser operation

Comments: _____

P	F	NA	Labeling-Posting-Warnings
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laser sign posted on lab door (Danger/Warning/Caution)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laser sign posted on lab door for invisible radiation (Danger/Warning/Caution)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Visible Warning Device when laser is energized
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Audible Warning Device when laser is energized
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laser label on housing (Danger/Warning/Caution)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Label of laser classification on housing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Label of laser characteristics on housing (power,wavelength)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manufacturer's certification label on housing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laser controlled areas within the lab posted
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Label for the laser aperture on housing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	High voltage warning label on housing

Comments: _____

P	F	NA	Personal Protective Equipment (PPE)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate eye protection (goggles) available for laser use

Description	Wavelength - OD	S/N #	Condition (Free of damage/clean)	Date checked

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Warning lights can be seen through goggles
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Protection from diffuse UV radiation available (eyes/skin)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appropriate skin protection available/used (lab coats, long sleeved garments)

Comments: _____

P	F	NA	Engineering Controls for Beam Hazards
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Protective housing and interlocks in good condition
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Access/entrance to laser use rooms, is controlled to prevent accidental exposure to the laser beam
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Door interlock in good condition
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Beam stops present at the end of all beam paths
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Barriers/screens/black out curtains if present, are in use
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laser table level below eye level for standing or sitting position
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Beam is not directed towards doors or windows
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Windows and ports are covered or protected during laser operation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Surfaces minimize specular reflections
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Optical bench free of unnecessary reflective items
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Beam path enclosed when possible
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Controls are located so that the operator is NOT exposed to beam hazards
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laser may be fired remotely
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All beams are traced

Comments: _____

P	F	NA	Non beam Hazards
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No exposed wiring or electrical circuits
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	High voltage equipment appropriately grounded
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laser beam is not impinging on flammable or combustible materials
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Barriers/screens/black out curtains are fire resistant
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laser is operated so that it does not cause an explosion hazard
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ventilation available to extract/scavenge metallic flumes, chemical vapors, and/or biological plumes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laser operation incorporates the safe use of compressed gases
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laser operation incorporates the safe use of laser dyes

Comments: _____