


3649	RISK DESCRIPTION	TREND	CURRENT	RESIDUAL
	SCI_SPA_Level 3_Class 3b laser and Rubidium_(1.6 Hyperfine Rubidium)		Medium	Not Assessed

RISK OWNER	RISK IDENTIFIED ON	LAST REVIEWED ON	NEXT SCHEDULED REVIEW
Manuel Emilio Pumarol Crestar	04/09/2017	04/09/2017	04/09/2020

RISK FACTOR(S)	EXISTING CONTROL(S)	PROPOSED CONTROL(S)	TREATMENT OWNER	DUE DATE
Laser eye hazard Beam from a Class 3B laser entering the eye may cause partial blindness before blink reflex is activated. Beams are near infrared and are not readily visible to the eye.(100mW max CW, 780nm)	<p>Control: Laser beam shutter blocks laser while door to optics lab is open.</p> <hr/> <p>Control: Semi-enclosed optics with screen in place.</p> <hr/> <p>Control: Power switched key-interlock on driver box.</p> <hr/> <p>Control: Baffles block scattered laser beam according to light survey.</p> <p>Leaks not pointing towards the wall were baffled.</p> <hr/> <p>Control: Signage notes class of laser, wavelength, and power.</p> <hr/> <p>Control: Warning sign lit when laser interlock enabled.</p> <hr/> <p>Control: Laser Radiation safety induction to be given to users before obtaining key for the driver box.</p> <hr/> <p>Control: Laser safety glasses (for the IR</p>			

	wavelength) worn by all occupants while lasers are active.	
Electrical hazard: Direct current voltages of 150V maximum exist within laser enclosure. Sufficient current is available to cause an unpleasant shock with concomitant risk of injury due to reflex action impact or fall. Insufficient current is available to cause serious injury directly.	Control: The high voltage is only present within the laser enclosure, thus reducing the opportunity to manage to be shocked by it. Only trained staff (no students) will need to adjust the parameters of the laser. _____ Control: As mentioned, the maximum available current is such that it is not likely to be directly harmful.	
Rubidium - small amount of solid rubidium metal stored inside a vacuum cell. (see autocad document for specifications)	Control: Deliberate use of a very minimal amount of rubidium. _____ Control: The Rubidium is stored within the Pyrex cell, which is unlikely to break and thus unlikely to expose students to contact with the rubidium	
Pyrex glass cell (contains Rubidium under vacuum) (see autocad document for specifications)	Control: Pyrex is a resilient material, and is unlikely to break in normal usage. _____ Control: It is not necessary to handle or move the rubidium cell.	