

Engineering Physics/C.E.D.T. Research Hazards Safety Report

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A. Potential Hazards

Radiation:

High Power pulse lasers are used in the lab including 355nm (300ps pulse duration, 30uJ, 1KHz repetition rate), 405nm and 475nm (<100ps pulse duration, 1~3uW, up to 80MHz repetition rate). High power continuous UV LEDs also are used with wavelength of 360nm, 380nm, 400nm. The UV laser light is in visible which is very dangerous to cause damage for eyes and skin. These lasers / LEDs will not be operated by Brendan personally but he has access to the lab and should still be aware of the potential hazards and safety procedures in case of an accident.

Electrical:

High Enclosed Voltage (Laser sources, PMT high power supply, enclosed by manufacturer).

Other:

Elevated shelves in the lab could produce potential falling object hazards (boxes and other lab equipment).

B. Operation Procedures

As per standard lab procedure, pants and closed toed shoes should always be worn in the lab. As well as anything put on a shelf should be stacked neatly and in a balanced position where it will not be easily bumped or pushed off. Any cords should be away from the walking areas in the lab to prevent trips. Doing experiments alone in the lab should be avoided, especially after work hours. Before any electrical appliance is powered on all cables and wires should be checked for damage and loose connections.

C. Emergency Preparation

In the event of an accident, "88" should be called immediately and the supervisor should be contacted. Any work on the system should stop and the light source turned off. An incident report should be filed with the department as soon as possible.