

Laser System Disposal / Transfer Guidance

Researchers are required to contact the Laser Safety Officer (LSO) via phone at (617)636-3450 or email: Geoff.sirr@tufts.edu, prior to transferring lasers from or on Tufts University (TU) property. Regulation requires that TU maintain records of receipt, transfer or disposal of a laser system with class 3B or 4 ANSI classifications.

Often most electronic devices rendered as waste contain some quantity of hazardous material (i.e. plasma tubes or ceramics containing beryllium oxide, diodes containing gallium arsenide or lead etched circuit boards) and are subject to regulatory disposal requirements.

The following options and suggestions are provided for those considering disposal of a laser system.

1. Contact the Manufacturer
 - a. Review the laser system manual for warning or caution statements that list hazardous materials and or recommendations for disposal of hazardous materials.
 - b. Contact the manufacturer technical support group for assistance in determining the hazardous materials contained within the laser system.
 - c. Ask for manufacturer recommendations for disposal or recycling.
 - d. Inquire if a "take back" program exists. Often manufacturers offer this service to assist customers, recycle materials for future manufacturing or refurbishment.
 - e. Contact TU EHS for further guidance
2. Tufts (transfer)
 - a. Transfers can be made only if the system is in good working order, with all safety systems intact.
 - b. Internal transfers require review and approval by the LSO prior to transfer.
 - c. External transfers require that the recipient be an entity that is qualified to safely operate the laser system, that the system be fully inspected before transfer and that Tufts be fully released from liability by the recipient. Release forms are provided by EHS as needed.
3. Disposal
 - a. Disposal is an option when lasers are of no value and after the laser is inactivated / de-energized.
 - b. EHS staff participates or assists in the identification, removal and segregation of hazardous materials. Hazardous materials (oils, dyes etc.) are then managed as waste in accordance with the applicable regulations.
 - c. Decontamination Clearance: Complete TUEHS "Equipment Hazard Clearance Tag" (Radiological, Biological, Chemical and Other (freon, lead, electrical)

4. Securing / Tagging equipment for disposal

- a. Researchers are responsible for their laser system equipment during the disposal process and are expected to continue to oversee the control of equipment within their respective research environment to ensure safety.
- b. Lasers tagged for disposal must be made inoperative to protect others from injury.
- c. Disable the laser equipment to avoid an injury to others.
 - i. Remove and secure key and power cords
 - ii. Separate and secure external hardware that energizes the laser
 - iii. Final inactivation may involve discharging electronic elements; in some cases, it may be necessary to have an engineer or specialist perform this service.
- d. EHS provides equipment tags. Contact EHS at 6-3615 to request a tag and initiate the equipment clearance process.

If you have any questions or require further information please contact the LSO at (617)636-3450.