



TEXAS TECH UNIVERSITY™

Operating Policy and Procedure

OP 60.25: Procurement of Interlocks and Other Safety-related Requirements for the Use of Lasers and/or X-ray Producing Devices

DATE: September 20, 2019

PURPOSE: The purpose of this Operating Policy/Procedure (OP) is to ensure that proper policies and procedures be employed in the design, purchase, and usage of safety interlocks and warning devices for lasers and/or radiation producing equipment (RPE) that are used on the Texas Tech University (TTU) campus. All such policies and procedures must conform to the criteria established by TTU's Laser Registration (Z00130), Certificate of X-ray Registration (R-00574), and regulations promulgated by the Texas Bureau of Radiation Control via Texas Administrative Code (TAC) 289.301 (lasers) and TAC 289.231 (X-rays).

REVIEW: This OP will be reviewed in September of odd-numbered years by the Assistant Vice President for Research (Environmental Health and Safety) with substantive revisions forwarded through the Associate Vice President for Research (Responsible Research) to the Vice President for Research and the Provost and Senior Vice President.

POLICY/PROCEDURE

1. Interlock/Safety Warning Device and Engineering Controls Protection

- a. To assure the protection of all university personnel and to maintain compliance with the stipulations of TTU's Certificate of Registrations for Lasers and Radiation Producing Devices, all required safety and warning devices are the responsibility of the principal investigator who has formal control over the laser/X-ray unit and the area in which it is located.
- b. Specific guidelines for safety interlock/warning/engineering control systems for each particular class of laser/X-ray are delineated in TTU, state, and federal regulations. The principal investigator should contact Environmental Health and Safety for guidance on specifics of what particular type of control system is required.

2. Laser and Radiation Safety Officers

The laser safety and radiation officers are responsible for making on-site inspections, keeping records, assisting users, and performing as a liaison with federal and state officials. These officers are granted the authority by 25 TAC 289.252 to shut down all unsafe operations immediately.

3. Initial Process for the Usage of Laser/X-ray Devices on TTU Campus

- a. All persons wishing to use lasers or X-ray producing devices must first obtain authorization and licensing from the Radiation and Laser Safety Committee. Forms for this purpose may be obtained from the radiation and/or laser safety officer, Office of Environmental Health and Safety.
- b. The presence of a required interlocking/safety warning/engineering control system is among the criteria reviewed by the Texas Tech University Radiation and Laser Safety Committee in order to obtain a sublicense. It is the principal investigator's responsibility for the installation of all required safety interlocking/warning systems prior to applying for an active sublicense to operate the units. For assistance in the initial design and applicability of safety interlock/warning systems, contact the laser or radiation safety officer.
- c. All Class IIIb and IV laser units and some X-ray units must have some type of interlock/warning system even if the unit is new, a used unit that is transferred, or a unit that is constructed from components.
- d. The laser and radiation safety officers are authorized to make routine inspections of laboratory areas where lasers and/or X-ray producing devices are used. The Radiation and Laser Safety Office is empowered by the Radiation and Laser Safety Committee to shut down any work area in which there is an unsafe and/or unauthorized usage condition present.

4. Contact Information

- a. Matthew Looney, Radiation Safety Officer
Office phone: 806.742.3876
- b. Ruben Chavez, Laser Safety Officer
Office phone: 806.742.3876
- c. Texas Department of State Health Services
24-hour emergency number: 512.458.7460