



TEXAS TECH UNIVERSITY™

Operating Policy and Procedure

OP 60.26: Tower Climbing

DATE: September 22, 2021

PURPOSE: The purpose of this Operating Policy/Procedure (OP) is to identify hazards associated with climbing university towers to perform research or maintenance activities, and to ensure that all university employees and contractors ascending Texas Tech University towers are trained in the proper procedures of tower climbing.

REVIEW: This OP will be reviewed in September of every fourth year by the Assistant Vice President for Environmental Health & Safety with substantive revisions forwarded through the Associate Vice President for Research to the Vice President for Research & Innovation. This OP will be reviewed again in 2025.

POLICY/PROCEDURE

Any university employee required to climb a Texas Tech University tower must attend a tower climbing safety class. Contractors will be required to furnish documentation of tower climbing training.

1. Responsibilities

Department heads, directors, and administrators will ensure that:

- a. All provisions of the tower climbing program are followed;
- b. Tower maintenance work shall be scheduled on weekends or off-peak parking hours, when possible, to prevent disruption of contract parking services, and all scheduled maintenance dates and times shall be coordinated with the Director of Traffic and Parking Services. The contract tower personnel will be responsible for barricading the drop zone area according to the height they will be working. "Drop zone area" is defined in section 4.d. Tower maintenance may have to be performed during peak hours, depending on the tower maintenance crew's availability. Notification is required and shall be made as soon as possible before work is performed on the KTXT-TV tower, with the following exception: notification will not be required for emergency situations such as changing light bulbs, faulted antennas, or cabling. Because no parking lots are beneath the Wind Engineering towers at Reese, coordination of their maintenance through Traffic and Parking is not required.
- c. Anyone required to work on a university tower is trained in the proper procedures of tower climbing;
- d. Training is received through an organization following the guidelines established by the National Association of Tower Erectors (NATE);
- e. Anyone ascending university towers has training certification available for viewing;

- f. A copy of the training certificate for university employees is retained in the employee's personnel file;
- g. No one other than trained university employees or personnel contracted by the university is allowed on university towers;
- h. Two university employees with tower climbing certification are on site any time the tower is climbed. University-trained employees will not be required to be on site with certified contract personnel. Contractors will be required to have two trained people on site when towers are ascended.
- i. Only inspected and approved safety equipment is being used at the tower site;
- j. Security measures are in place and workable at university towers (locked gates, locked ladders, locked elevators, or any other means required to secure the tower); and
- k. University departments requiring work on towers will coordinate with appropriate departments for securing the drop zone area and security of the work location (Traffic and Parking, Texas Tech Police, Grounds Maintenance, Physical Plant, etc.). Contractors will be responsible for barricading the drop zone area as defined in section 4.d.

2. Pre-climb Safety

- a. Survey the job site to determine personal protective equipment (PPE) required.
- b. Identify all fall protection elements.
- c. Identify anchorage points and use equipment designed for the type of anchorage present.
- d. Determine any special equipment needed.
- e. Ensure that all personnel are familiar with any special equipment or procedures that will be used.
- f. Ensure that emergency services know how to access tower locations.
- g. Ensure that a first aid kit is available and stocked with the appropriate supplies for site-specific incidents.
- h. All climbers should be trained in first aid and cardiopulmonary resuscitation (CPR).
- i. All climbers shall be aware of environmental conditions (weather, vermin, terrain, etc.).
- j. Ensure that a site safety meeting has been performed with all personnel who will be working on the tower.

3. Rescue Planning

- a. Always have two trained people present when a climb is performed. These people shall be certified in tower climbing.
- b. Each climber will be trained in CPR and first aid to provide emergency treatment on site.

- c. In the event a climber becomes stuck or injured on a tower, call 911 and request dispatch of EMS and the Heavy Rescue Team from the Lubbock Fire Department to the scene.

4. Equipment

- a. Always use the proper equipment for the job.
- b. Never alter or use incorrect body harnesses; safety belts are not acceptable fall protection equipment.
- c. If tool belts are worn, they must be under the body harness or attached to a belt incorporated within the harness intended for said purposes.
- d. All personnel involved in the maintenance of the tower will wear hard hats in the drop zone. The drop zone is identified as a circle with its center at the base of the tower base, and having a radius of one foot for every two feet of working height. The drop zone will vary with the height at which personnel are working. (Example: If personnel are working at a height of 50 feet, the drop zone would be a circle around the tower with a 25-foot radius.)
- e. When using tools, always have a safety line attached to the tool to prevent it from falling.
- f. Any lanyard or body harness that has been exposed to loading shall be taken out of service until the manufacturer can recertify it for use.
- g. With no exception, all climbers will use approved equipment to maintain a 100% tie-off while on the tower.

5. Inspection

- a. Check the general condition of the structure before climbing. (Review maintenance records for pertinent information if they are available.)
- b. Check all components of the tower before climbing (e.g., guy wires, ladders, elevators, safety cable tension on the ladder, etc.).
- c. Since different types of towers have unique problems with corrosion, check with the manufacturer to determine the proper procedure for periodically inspecting the tower's protective coating and structural integrity.
- d. Inspect all PPE and climbing equipment prior to each use. Inspect lanyards for wear, cuts, and burns.
- e. If communication equipment is used, inspect it before each climb.
- f. Inspect all body harnesses, slings, lines, and connectors before each climb.