



TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER EL PASO

Operating Policy and Procedure

HSCEP OP: 75.08, **Aerial Lifts - OSHA Standard 29 CFR 1926.453**

PURPOSE: This purpose of this Texas Tech University Health Sciences Center El Paso (TTUHSC El Paso) Operating Policy and Procedure (HSCEP OP) is to provide guidance for those employees required to use a manual aerial platform to perform their work duties.

REVIEW: This HSCEP OP establishes the minimum safety requirements for the use of manual aerial platforms.

This HSCEP OP will be reviewed every two (2) years by the Senior Director of Facilities Senior Director of Safety Services, with recommendations and revisions forwarded to the Assistant Vice President for Facility Operations and CFO or their designee.

This standard practice applies to all TTUHSC El Paso personnel who will use a manual aerial platform. Contractors will be responsible to facilitate their own aerial platforms unless arrangements have been made with TTUHSC El Paso Physical Plant and Facilities and Operations. Once these arrangements have been made the contractor shall adhere to this policy.

PROCEDURE:

I. Definitions:

- A. **Aerial Platform-** A manually propelled, or vehicle mounted device that has an adjustable position platform, supported from ground level by a structure or vehicle.
- B. **Authorized Personnel-** Employees who have successfully completed required training, demonstrated competency, and are formally authorized to operate an aerial platform for assigned duties and work location.
- C. **Base-** The relevant contact points of the aerial platform that form the stability fulcrum (e.g., wheels, casters, outriggers, stabilizers, etc.)
- D. **Chassis-** The integral part of the aerial platform that provides mobility and support for the elevating assembly.
- E. **Competent Person-** Staff member who, because of training and experience, is capable of identifying hazardous or dangerous conditions in powered platform installations.
- F. **Elevating Assembly-** The mechanisms used to position the platform relative to the aerial platform chassis.
- G. **Guardrail System-** A vertical barrier intended to prevent user from falling to lower levels. Consisting of the following:
 - 1. Top rail: Must be installed at a height of 42 inches (with a ± 3 inch tolerance) above the walking or working surface. It must be able to withstand a downward or outward force of at least 200 pounds.

2. Mid-rail: Positioned roughly halfway between the top rail and the working surface (21 inches). It must be capable of withstanding at least 150 pounds of force.
 3. Toe-board (Kickplate): Required if tools or debris could fall onto workers below. Must be at least 3.5 to 4 inches high and withstand 50 pounds of force.
- H. **Hazardous Location-** Any location that contains, or has the potential to contain, an unsafe condition with the potential of harming the operator, others or equipment.
- I. **Instability-** the quality or state of being unstable; likely to tip over.
- J. **Interlock-** A control or mechanism that, under specific conditions, automatically allows or prevents the operation of another control or mechanism.
- K. **Lanyard-** a flexible line or rope, wire rope, or strap which is used to secure the body belt or body harness to a deceleration device, lifeline or anchorage.
- L. **Modification/Modified-** to make a change(s), temporary or permanent, to an aerial platform that affects the operation, stability, safety factors, rated load or safety of the aerial platform in any way.
- M. **Operator-** A qualified person who controls the movement of the aerial platform.
- N. **Outriggers-** Devices that increase the stability of the aerial platform and that are capable of lifting and leveling the aerial platform.
- O. **Platform-** the portion of the aerial platform intended to be occupied by user with their necessary tools and materials.
- P. **Platform Height-** The vertical distance measured from the floor of the platform to the surface upon which the machine is supported.
- Q. **Qualified Person-** User who by reason of knowledge, experience, and training is certified and familiar with the operation to be performed and the hazards involved.
- R. **Rated Work Load-** The designed carrying capacity of the aerial platform as specified by the manufacturer.
- S. **Shall-** The word "shall" is to be understood as mandatory.
- T. **Stability-** The quality, state of being stable, firmly anchored, not likely to tip over.
- U. Operator shall adhere to the following mandatory requirements to ensure safe and proper use of manual aerial platforms:
1. Only authorized staff (those who have been properly trained and observed safely operating by the competent person Identified by department) shall operate the manual aerial platform/lift.
 2. Do not operate the manual aerial platform/lift until satisfying training requirements. Training needs to be completed and documented by authorized personnel.
 3. Before operating, each operator will conduct a walk-around-inspection. (See Attachment)
 4. The manual aerial platform/lift will be operated utilizing a buddy-system. One person will work as the operator and the other will be the look-out person at the

base. The look-out will warn people not to work, stand, or walk under the raised platform.

5. Barricades, rope-off or cones will be used to secure the area where the manual aerial platform is operating.
6. Before operating, the operator will check that the work area is free of any hazard or unsafe condition.
7. The manual aerial platform/lift will only be set-up on a smooth, firm surface upon which the machine is able to be leveled.
8. If this manual aerial platform/lift needs to be serviced, it will not be operated until the problem is corrected.
9. The operator will read, understand, and obey all dangers, warnings, cautions and operating instructions on the manual aerial platform/lift.
10. This manual aerial platform/lift will not be operated if warning labels are not legible and in place.
11. This manual aerial platform/lift will not be operated during high winds, rain or snow.
12. Personal protective equipment will be used at all times while operating the manual aerial platform (i.e., hard hat, safety glasses, hard toe safety shoes, work gloves, and body harness).
13. Operator must be familiar with emergency controls.

II. Responsibilities Associated to Aerial Platform Use:

- A. Senior Director of Facilities Operations and Maintenance - Responsible for the overall implementation of this procedure.
- B. Senior Director of Facilities Operations and Maintenance - Ensures that the necessary training is acquired by all staff, operating, performing maintenance, and conducting inspections on the aerial platform.
- C. Maintenance Supervisor /Housekeeping Supervisor/Landscape Supervisor(s) - Ensure that all TTUHSC El Paso staff assigned to this type of work are properly trained and qualified to perform the duties assigned.
- D. Safety Services - Responsible to ensure that all provisions of this procedure are kept updated according to the latest OSHA requirements, that training is available for TTUHSC El Paso staff and notifying management if procedures are not being followed.
- E. Department Qualified Person - Responsible for scheduling necessary training, conducting training on this procedure, and maintaining training records.
- F. TTUHSC El Paso Staff - Are not to operate any aerial platform without having been properly trained on the details of this procedure and the operating manual of the specific model aerial lift to be operated.

III. Training:

- A. TTUHSC El Paso staff who are scheduled to perform the functions of operators of aerial platforms or maintenance on aerial platforms shall be trained on these procedures.

- B. Operator and maintenance training shall include, but not be limited to the following before actually operating the aerial platform or performing maintenance on an aerial platform. (In addition to these guidelines you can also use the OSHA fact sheet attached).
1. Know the intended purpose and function of each of the controls.
 2. Read or have been instructed on and understand the manufacturer's operating instructions, maintenance manual and safety rules.
 3. Read or have been instructed on all decals, warnings, and instructions displayed on the aerial platform.
 4. Read or have been instructed on the performance of the daily walk-around inspections.
 5. Taken a written test and passed it with a score of 100%. Failure to achieve a passing grade will result in having to repeat the above four steps until a passing grade is obtained or the trainer, in consultation with the supervisor, agree that this individual is not suited for aerial platform operation.
 6. The operator trainee shall operate the aerial platform in an area free of obstructions under the direction of the department's competent person, for a time sufficient to determine that the trainee displays proficiency in knowledge and operation of the aerial platform.
 7. Only properly trained and authorized TTUHSC El Paso staff shall be permitted to operate any aerial platform.
 8. Only properly trained staff shall be permitted to perform inspections and required maintenance of aerial platform.
 9. Written records of aerial platform training for operators shall include the staff's name, date of training, trainer's name and affiliation, topics covered and the original written test or tests taken. These records shall be maintained for five years by the department's competent person.
 10. Re-training shall take place every three years; when a new model is acquired, rented or when as staff member demonstrates less than proficiency in the operation or maintenance of aerial platforms.

IV. Record Retention:

The following records shall be maintained for a minimum of five years by the Facilities Operations Maintenance (FOM) Department.

- A. Records of competent person training.
- B. Records of each staff member trained as operator for the model they will operate.
- C. Records of each staff member trained to perform maintenance and inspections.
- D. Written records of the daily walk-around inspections. These records shall include the date of the inspection, model and serial number of the aerial platform, name and affiliation of the person performing the inspection, any deficiencies found, and the corrective action recommended.

- E. Written records of all repairs accomplished, including the date of the repair, a description of the work accomplished, the work order number, model and serial number of the aerial platform, and the identification of the person(s) performing the work.
- F. Written records of modifications, alterations, and statements of manufacturer's approval for any modifications and alterations shall be maintained for five years after sale or other disposition of the aerial platform.

Aerial Platform Inspection Checklist (Attachment A)

Date Completed: _____ Inspected By: _____

Model Number: _____ Serial Number: _____

TO AVOID POSSIBLE INJURY, MAKE SURE MACHINE POWER IS "OFF" DURING INSPECTION.

Place a check mark in box as appropriate to condition found.

Inspection Area		Inspection Results		
		Satisfactory	Unsatisfactory	Comments
Drive and Caster Wheels	Properly secured wheels and casters turn freely and are properly lubricated.			
Base Frame	Components properly secured, no loose wires dangling below base, bubble level in place and functioning properly.			
Battery Charger Box Assembly	Proper battery electrolyte level, no cable corrosion. Battery box moves freely when machine is tilted for transporting.			
Outrigger Interlock Indicator LED's	Ensure LED lights turn "ON" once unit is leveled.			
Outrigger Sockets	Outrigger lock/release pins in place and secure, no visible damage. Outriggers interlock contacts (inside outrigger sockets) secure and clean.			
Outriggers Beams	Outriggers interlock contacts properly installed and clean (on bottom of outrigger assembly). Leveling jacks secure to the outrigger assembly, lubricated and functioning properly.			
Motor/Pump Reservoir Power Unit	No evidence of hydraulic leaks, Check that hydraulic reservoir fluid is filled to the "Fill to Line" mark on the side of the reservoir.			
Ground Controls	Key switch operable, placards secure and legible; emergency stop switch, properly set for operation.			
Mast Assembly	Inspect mast chains, cables and hoses.			
Platform Rail Installation	Entry gate/bar in proper working order.			
Platform Assembly	Secure to mast; Control and power cables properly tensioned and seated in control cable sheaves; control sheaves rotate freely.			
Platform Controls	Placards secure and legible, emergency shut-off button set for operation. Operator's manual enclosed in manual storage tube.			

AERIAL PLATFORM OPERATION SAFETY RULES

- Only authorized operators who have completed required training and competency verification shall operate aerial platforms. Observe and obey all danger, warning, caution and other instructions on machine.
- Provide a walk-around inspection before operation of unit utilizing the approved check list.
- All placards, safety decals must be in place and legible.
- Never exceed the maximum platform capacity.
- Red tag unit if not operational and report unsafe condition to supervisor.
- **Operator has the authority to shut down machine if found unsafe.**
- Check the work area for hazards above, below and all around that might cause tip over.
- Set-up machine only on smooth, firm surface on which machine is able to be leveled.
- Maintain a safe distance around electrical panels and power lines.
 - The 10-Foot Rule: For lines carrying up to 50 kV, a strict minimum clearance of 10 feet must be maintained at all times. Refer to OSHA guidelines for voltage scaling.
- Keep everyone clear of the working platform. Never allow anyone to pass under a raised platform.
- A two-person operation (buddy system) will always be utilized while operating the aerial platform.
- Maintain the work area around the platform restricted by means of; safety cones, caution tape.
- Wear appropriate personal protective equipment (PPE) when operating the work platform; hard hat, safety glasses, work gloves, fall protection and hard toe safety shoes.
- Never modify or remove any part of the equipment unless authorized by the manufacturer.
- If machine is unattended, lower platform, shut off, engage parking break and take necessary steps to prevent unauthorized “use”.
- Do not wear loose clothing or accessories that can be caught in moving parts.
- Keep a fire extinguisher available at work site.
- Never operate machine in high wind, rain or snow.
- Always use the 3 point contact system to get on and off from platform; two hands one foot; two feet one hand; etc.)

AERIAL PLATFORM OPERATION TEST

Operator Name: _____

Date: _____

T	F	1. Anyone can operate the aerial platform machine?
T	F	2. Walk-around inspections are required to be conducted before the start of the operation of the aerial platform.
T	F	3. The operator has the authority to shut down the machine if it is unsafe to use?
T	F	4. The aerial platform cannot be operated without the placards in place?
T	F	5. The aerial platform needs to be placed on a smooth surface where it can be leveled properly?
T	F	6. Three persons can occupy the platform cage?
T	F	7. It is acceptable to modify or remove parts from the machine without the authorization of the manufacturer?
T	F	8. The look-out person needs to warn people from walking and getting too close to the platform?
T	F	9. The work area needs to be roped-off and restricted from people?
T	F	10. The machine can be operated in any type of weather, rain, hail, and snow?
T	F	11. It is acceptable to jump off the platform when getting off?
T	F	12. In addition to the walk-around inspection the operator needs to check the work area for any hazards and unsafe conditions prior to starting your task?
T	F	13. Staging the aerial platform next to electrical wires is recommended?
T	F	14. Safety shoes, working gloves and hard hat are the only required personal protective equipment (PPE) to use while operating the aerial platform?
T	F	15. It is safe to leave the machine unattended without taking any precautions?
T	F	16. A copy of the machine's safety and operating manual needs to remain in the storage container at all times?
T	F	17. It only takes one person to safely operate the aerial platform machine?
T	F	18. The aerial platform can be safely moved up an incline by one person?
T	F	19. Walk-around inspections do not have to be documented?
T	F	20. The aerial platform authorization training is good for as long as I work?