

Subject: Operation of Aerial Device (Bucket Truck)

INTENDED AUDIENCE: Facilities Staff certified to operate aerial lift device

PURPOSE : Aerial Devices pose a serious safety hazard if not used properly. The purpose of this SOP is to ensure the safe operation of aerial devices, ensure staff understand and comply with safety standards related to these devices. Assign responsibility to staff which are necessary for successful implementation.

DEFINITIONS

Aerial Lifts: Any powered, mobile vehicle-mounted device that may elevate, telescopically extend, articulate and may (or may not) rotate around a substantial axis in order to raise and support personnel to elevated job sites.

Aerial lifts include extendible boom platforms; vehicle-mounted aerial ladders; articulating, rotating boom platforms; vertical self-elevating towers; cherry pickers; bucket trucks and any other equipment built in accordance with either ANSI-A92.2 (1990), Vehicle-Mounted Elevating and Rotating Aerial Devices, or ANSI-A92.5 (1992), Boom Supported Elevating Work Platforms.

Aerial Work Platform (AWP): is defined as a mobile or manually propelled device that has an adjustable position platform, supported from ground level by a structure.

Anchorage (Anchor Point): The secure point of attachment to be used with personal fall protection equipment.

Articulating Boom: means an aerial device that has 2 or more hinged boom sections.

Certified Operator: Certification of aerial lift operators at MC is a three step process consisting of classroom instruction, hands-on training and hands-on evaluation. Once the employee has successfully completed all three steps they are considered to be a certified operator.

Counter Weight: The rear section or area of the lift that is usually made of solid steel, and/or combination of steel and the weight of the battery on electric lifts, which counter balances the boom leverage and basket load.

Data Plate: Manufacturer's equipment specification and information data, which includes the basket load rating/lift capacity, lift heights, vehicle weight, and vehicle attachments. This plate is required to be affixed to all Aerial Lift Equipment by regulatory code.

Extensible Boom: means an aerial device, except for the aerial ladder-type, which has a telescopic boom.

Fall Protection: An approved full-body safety harness with lanyard is to be worn at all times and attached to a secure anchor point when drivers or personnel are using a boom-type lift or vehicle mounted lift. Fall protection must also be worn when using scissor lifts on uneven surfaces or near location with tip-over hazards.

Insulated platform: A platform designed and tested to meet the specific electrical insulation ratings consistent with the manufacturer's identification plate.

Lower Controls: Operating controls located on the base of the unit that can be switched to override the basket or platform control during an emergency.

Mast: Part of the lifting mechanism, which the hydraulic lift cylinder or worm drive is attached that supports the basket as it is lifted up and down.

Platform: means the portion of an aerial work platform, such as bucket, basket, stand cage, or the equivalent, which is designed to be occupied by personnel.

Personal Fall arrest system: means a system used to arrest an employee in a fall from a walking-working surface. It consists of a body harness, anchorage, and connector. The means of connection may include a lanyard, deceleration device, lifeline, or a suitable combination of these.

Upper controls: Operating controls located on the basket or work platform of the unit. These controls can only be overridden with the operator's permission or in case of an emergency.

Wheel chocks: Wheel chocks provide additional protection against accidental vehicle movement. Chocks prevent accidental movement or slippage of vehicles by bracing the wheels on both sides. This is important during boom and basket movement when

POLICY

1. Vehicle Storage Location: Bucket truck must be stored in a secured locked area at the GT Autoshop parking area. Adequate secured parking locations must be identified at Rockville and Takoma Park/ Silver Spring campuses when the truck is located there.
2. Signing out keys: Only certified operators are authorized to sign out the bucket truck. A list will be provided by EHS to GT Facilities Office.
3. Training records of each certified operator must be kept for each employee file by the Facilities office or the supervisor. Only certified staff will be allowed to operate the bucket truck, 2 staff are required to operate the bucket truck.
4. Incidents involving the aerial device must be reported to Public Health and Environmental Safety (PHES) and the operator will be expected to complete a refresher training setup by Environmental Safety staff.
5. A job briefing must be conducted by the person in charge before the job/task is started.

RESPONSIBILITIES

Environmental Safety Office

- * Assist work units in writing and revising the SOP
- * Arrange for operator certification and approve Aerial Device training provider.
- * Periodically evaluate and review Aerial Device SOP with Managers.

Facilities Managers

- * Be thoroughly informed of the contents of the SOP and its application to their areas of responsibility and authority
- * Ensure employees comply with all provisions of SOP
- * Ensure employees receive training appropriate to their assigned tasks and maintain documentation of such training.
- * Ensure employees are provided with and use appropriate protective equipment.

- * Take prompt corrective actions when unsafe conditions or practices are observed.

- * Investigate injuries and incidents within their work unit related to aerial device usage

Employees

- * Follow work practices described in this SOP, including the use of appropriate protective equipment
- * Attend all training required to operate aerial devices
- * Immediately report any unsafe conditions or concerns related to aerial device safety to their supervisor

PROCEDURES

1. Read and understand the manufacturer's operating instructions. Per OSHA 29 CFR 1910.67 truck manual must be present inside the truck and in good condition.
2. Perform pre-operation check of the vehicle and its controls.
3. Cannot use uninsulated bucket truck 10 ft from live wires or electric posts.
4. The platform shall not be operated in winds in excess of 25 miles per hour except to move it from an operating to a storage position.
5. Tools, materials and debris not related to the work in progress shall not be allowed to accumulate on the platform.
6. Employees on working platforms shall be protected by a personal fall arrest system that meet the requirements of 1910.140 Personal Fall Protection Systems.

Employee Training

Employees who operate aerial lifts must have training in the manufacturer's operating instructions including demonstration of necessary practical skills required for safe operation. the knowledge, training, and skills necessary to use the aerial lift. Operational training will consist of a combination of general safety instruction, practical/operational training (demonstrations performed by the trainer, and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.

Initial Training

- * Training will be set up by EHS from an accredited training provider.
- * All employees who operate working platforms shall be trained in the following:
 - A. Safety statements and OSHA regulations
 - B. Non-Insulating Aerial Device unit inspection and maintenance
 - C. Traveling
 - D. Job briefing and emergency action plan
 - E. Unit Setup and Pre-Operational Inspection
 - E. Personal fall protection requirements, inspection, care, use and system performance.

Annual Training

Must include at least the following:

- A. Review of the Aerial Lift Inspection & Maintenance Records.
- B. Updated information on new equipment and review of SOP
- C. Familiarization meeting with Altec representative.
- D. Demonstrate safe operation to supervisor prior to task assignment, if 90 days or more have passed since the last time the employee operated the aerial device.

Training Records

Each employee certification record shall be maintained in a file for the duration of the employee's employment at each Campus Facilities Office. The certification shall be kept readily available for review by the Assistant Secretary of Labor or Assistant Secretary's representative.

REFERENCES

- * OSHA 29 CFR 1910.66 (Powered Platforms for Building Maintenance)
- * OSHA 29 CFR 1910.67 (Vehicle Mounted Elevating and Rotating Work Platforms)
- * OSHA 29 CFR 1926.20 (General Safety & Health Provisions)
- * OSHA 29 CFR 1926.21 (Safety Training and Education)
- * OSHA 29 CFR 1926.451 (General Requirements)
- * OSHA 29 CFR 1926.453 (Aerial Lifts)
- * ANSI/SIA A92.5-2006 (Boom-Suported Elevating Work Platform)
- * ANSI/SIA A92.2 (Aerial Work Platform Standards)
- * OSHA 29 CFR 191 OSHA Fall Protection Standard