



**POLICIES AND PROCEDURES**

**SUBJECT NO.**

**DEPARTMENT: Environmental Health and Safety**

**SUBJECT: Aerial Lift Safety Program**

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<b>Reviewed</b>	01/13							
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**Overview**

Aerial lifts are commonly used in construction, inspection, athletic events and repair services to lift University employees to an elevated work position. Proper operation and use of aerial lifts can make completion of tasks at elevation, safer and more efficient. However, unsafe use, operation and aerial lift work practices can result in serious injury. This program has been developed due to the hazards associated with improper use and the Universities concern for the safety of individuals in and around this type of equipment. In addition, this program outlines general, operating, maintenance, inspection and training requirements governing safe aerial lift use at the University.

**Policy**

Departments using aerial lifts must ensure that supervisors and operators comply with all aspects of this safety program. All university employees must successfully complete a training program, and receive certification prior to the operation of any aerial lift. Contractors operating aerial lifts on university projects are expected to meet or exceed the requirements found in this program, and comply with all applicable statues and regulations governing the use of powered industrial trucks as listed in this document.

**Reference Standards**

- OSHA Standard 29CFR 1910.68 (Powered Platforms, Manlifts, and Vehicle-Mounted Work Platform)
- OSHA Standard 29CFR 1926.453 (Aerial Lifts)
- ANSI/SIA A92.6 – 2006 (Self-Propelled Elevated Work Platforms)

## **Purpose**

This program has been developed to reduce the risk of physical injury or property damage in areas where aerial lifts are in operation. It also brings the university into compliance with federal, state, and local law.

## **Scope**

This program applies to the operation of all aerial lifts operated by university employee. Please see Appendix A – Examples of Aerial Lifts for specific examples. Please list below the types of lifts used by the department.

## **Aerial Lift Procedures**

### **Pre-Use Inspection**

- Prior to the operation of any aerial lift the Pre-Use Inspection Checklist found in Appendix A must be completed. This applies at the beginning of every work period, and whenever a new equipment operator takes control of the aerial lift.
- Any safety defects (such as hydraulic fluid leaks; defective brakes, steering, lights, or horn; and/or missing fire extinguisher, lights, seat belt, or back-up alarm) must be reported for immediate repair. They must also be locked and tagged, and taken out of service.

### **General Safe Work Practices**

- Operators shall not wear any loose clothing or any accessory that can catch in moving parts.
- Before machine is started, the operator must walk completely around the machine to ensure everyone and everything is clear of the machine.
- Articulating boom and extendable boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
- Modifications and additions that may affect the capacity or safe operation of an aerial/scissor lift are strictly prohibited without the manufacturer's written approval. Capacity, operation, and maintenance instruction markings will be changed as necessary if the manufacturer approves a modification.
- The insulated portion (if applicable) of an aerial / scissor lift shall not be altered in any manner that might reduce its insulating value.
- Any signs, plates, or decals which are missing or illegible must be replaced.
- If the aerial / scissor lift becomes disabled, a "out of service" tag or equivalent shall be attached to the controls inside the platform in a conspicuous location.
- Aerial/scissor lift devices with noted, reported deficiencies shall not be operated until repairs are made and equipment is authorized for use.
- Operators must report all accidents, regardless of fault and severity, to their Supervisor.

## **Safe Work Practices Before Operation**

- Consideration shall be given to the amount of wind. Follow the manufacturer's instruction regarding operation in windy conditions. As a general rule aerial lifts shall not be operated in winds exceeding 25mph although this can vary depending on the model of equipment
  - At 20mph wind speeds or anticipated gusts, lifts will be lowered to a maximum height of 20 feet.
  - At 25mph wind speeds or anticipated gusts, lifts will be grounded.
  - If at any time, video personnel/staff feels unsafe in lifts, they may make decision to ground the lifts and cease with videotaping games or practices...no questions asked.
- Guardrails must be installed and access gates or openings must be closed before raising the platform.
- Boom and platform load limits specified by the manufacturer shall not be exceeded.
- Before moving an aerial lift for travel, the boom(s) shall be inspected to see that it is properly cradled and outriggers are in stowed position (if equipped).
- Consideration shall be given to the protection of bystanders via barricading, having another employee keep bystanders at a safe distance or by other means.
- Aerial lifts shall not be operated from trucks, scaffolds, or similar equipment.

## **SAFETY During Operation**

- Full body Harness must be worn at all times while in the basket.
- Attention shall be given towards the direction of travel, clearances above, below and on all sides.
- Employees shall not sit or climb on the guardrails of the aerial lift.
- Planks, ladders or other devices shall not be used on the work platform.
- An aerial lift shall not be moved when the boom is elevated in a working position with employees in the basket.
- Aerial lift shall not be placed against another object to steady the elevated platform.
- Aerial lift shall not be used as a crane or other lifting device.
- Aerial lift devices shall not be operated on grades, side slopes or ramps that exceed the manufacturer's recommendations.
- The brakes shall be set and outriggers, when used, shall be positioned on pads or a solid surface.
- Speed of aerial lift devices shall be limited according to the conditions of the ground surface, congestion, visibility, slope, location of personnel and other factors that may cause hazards to other nearby personnel.
- Stunt driving and horseplay shall not be permitted.
- Booms and elevated platform devices shall not be positioned in an attempt to jack the wheels off the ground.
- The area surrounding the elevated platform shall be cleared of personnel and equipment prior to lowering the elevated platform.
- All equipment must be secured on the inside of the aerial lift

- Operators are to call for assistance if the platform or any part of the machine becomes entangled.

### **Safe Work Practices after Operation**

- Safe shutdown shall be achieved by utilizing a suitable parking area, placing the platform in the stowed position, placing controls in neutral, idling engine for gradual cooling, turning off electrical power, removing keys, and taking the necessary steps to prevent unauthorized use.
- Aerial lifts shall be shut off prior to fueling. Fueling must be completed in well ventilated areas free of flames, sparks or other hazards which may cause fires or explosions.

### **Maintenance**

- Any aerial lift not in safe operating condition must be removed from service. Authorized personnel must make all repairs.
- Repairs to the fuel and ignition systems of aerial lifts that involve fire hazards must be conducted only in locations designated for such repairs.
- Aerial lifts in need of repairs to the electrical system must have the battery disconnected before such repairs.
- Only use replacement parts that are currently recommended by the manufacturer.

### **Responsibilities**

#### **Departments Utilizing Powered Industrial Trucks**

- Verify that all employees who operate or work near aerial lifts are properly trained.
- Maintain written records of operator training on each model of aerial lift and the name of the trainer.
- Maintain written records of all inspections performed by the aerial lift owner, including the date any problems found, the date when fixed, and the name of the person performing the repairs.
- Establish expected operating conditions for aerial lift (both weather, vehicle etc.) are within this standard prior to operation

#### **Supervisors**

- Ensure that only trained and qualified individuals use aerial lifts.
- Verify employee compliance with the principles and practices outlined in the Aerial Lift Safety Program.
- Provide specific operational training for each aerial lift.
- Observe the operation of aerial lifts, and correct unsafe practices.

## **Responsibilities (continued)**

### **Operators**

- Read the Aerial Lift Safety Program.
- Complete the Daily Pre-Use Inspection Checklist before operating any aerial lift.
- At least annually review the procedures outlined in this document.
- Observe the operation of the aerial lift, and report unsafe practices to your supervisor.

### **Environmental Health and Safety**

- Periodically review and update the Aerial Lift Safety Program as necessary.
- Provide training.

## **Training Requirements**

Employees who are authorized to operate aerial lifts must receive training prior to engaging in their duties, and at least every three (3) years thereafter. The training is to ensure that the Aerial Lift Safety Program is understood. The supervisor will also ensure that authorized aerial lift operators have acquired the necessary practical skills required for safe operation. Training is offered by Environmental Health and Safety, Rental Company and the department in possession of the lift. The department will perform an operational training with each employee to determine if operators have 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 and evaluation of the operator's performance in the workplace. All operational training must be conducted under close supervision.

## **Review**

- Receive instruction on the intended purpose and function of each control.
- Prior to operating any Aerial Lift the trainee will read and understand the manufacturer's operating instruction(s) and aerial lift procedures, or receive training by a qualified person on the contents of the manufacturer's operating instruction(s) and users safety rules.
- Be informed of the Aerial Lift operating limitations and restrictions as defined by the manufacturer.
- Understand by reading or having a qualified person explain all decals, warnings, and instructions displayed on the Aerial Lift.
- During operational training, trainees may operate an aerial lift only under the direct supervision of authorized trainers, and where such operation does not endanger the trainee or other employees.

## **Training Records**

- Each department must maintain a record of all individual training, including:
  - Subject of training.
  - Date of training.
  - Name of individual trained.
  - Training records must maintained by the department for a minimum of 3 years.

## **Program Evaluation**

The aerial lift program shall be evaluated on an annual basis utilizing the protocols set forth by Environmental Health and Safety. The evaluation team will consist of a department representative and a designee from Occupational Health and Safety. Occupational Health and Safety will define the scope of the evaluation. The final report will be developed by the department representative and OHS utilizing the information received during the evaluation. The deficiencies determined in the report will be documented and corrective action plans will be developed.

# Types of Aerial Lifts



**Vehicle Mounted Aerial Lift / Bucket Truck** The lift platform is an integral part of an over the road vehicle.



**Articulating Boom Aerial Lift** This aerial lift has at least 2 hinged sections which are used to increase mobility.



**Man Lift / Cherry Picker** This piece of equipment lifts personnel vertically, but not horizontally.



**Scissor Lift** This piece of equipment lifts personnel vertically, but not horizontally.



**Extendable / Telescoping Aerial Lift** This aerial lift has a boom that extends horizontally and vertically.