

EHS-318, AERIAL AND SCISSOR LIFT PROGRAM

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1.0 Introduction

1.1 Purpose

The purpose of this program is to provide guidance in the protection of all Emory employees assigned to operate aerial and scissor lifts as prescribed by the Occupational Safety and Health Administration (OSHA). While some entities and/or divisions may have additional or more stringent guidelines, the guidelines outlined in this document shall serve as the minimum requirements for all Emory operations.

1.2 Scope

This program is inclusive of all Emory employees, including healthcare, faculty, staff, and student employees who are designated by their departments to operate, repair, or maintain aerial and scissor lifts.

1.3 Definitions

Aerial lift. Any vehicle-mounted device, telescoping or articulating, or both, which is used to position personnel.

Articulating boom platform. An aerial device with two or more hinged boom sections.

Attachment points. A secure point of attachment to be used with personal fall protection equipment.

Extensible boom platform. An aerial device (except ladders) with a telescopic or extensible boom. Telescopic derricks with personnel platform attachments shall be considered to be extensible boom platforms when used with a personnel platform.

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

Outriggers. Devices that increase the stability of the aerial lift platform and that are capable of lifting and leveling the aerial / scissor lift platform.

Platform. Any personnel-carrying device (basket or bucket) which is a component of an aerial device.

1.4 Responsibilities

Environmental Health and Safety Office (EHSO) and Emory Healthcare (EHC) Safety Management

As the administrative department for the Aerial/Scissor Lift Program, EHSO and EHC Safety Management are responsible for:

- Development and administration of the Aerial/Scissor Lift Program;
- Assisting supervisors with implementing the provisions of this program;
- Reviewing, updating, and evaluating the overall effectiveness of the Aerial/Scissor Lift Program;
- Assisting with the coordination of training required by this program; and
- Ensuring documentation of employee training is maintained.



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Aerial/Scissor Lift Trainers

All Aerial/Scissor Lift trainers are responsible for:

- Conducting the training and evaluation of aerial/scissor lift operators;
- Maintaining training certification records of employees and students completing training sessions;

Directors, Supervisors and Managers

Directors, supervisors, and managers have primary responsibility for the management and enforcement of the Aerial/Scissor Lift Program in their areas. They must:

- Ensure that employees who operate aerial and/or scissor lifts in their departments have received training appropriate to their assigned tasks;
- Retain documentation of employee aerial/scissor lift training;
- Retain completed Aerial/Scissor Lift Inspection Checklists;
- Ensure that employees who operate aerial and/or scissor lifts do so in a safe manner;
- Ensure that employees are provided with and use appropriate personal protective equipment (PPE);
- Ensure that employees comply with all provisions of this program;
- Ensure that the equipment under their responsibility is properly inspected and maintained in a safe operating condition;
- Ensure that no modifications are made to aerial and scissor lifts without the manufacturer's written approval; and
- Ensure that prompt corrective action is taken when unsafe conditions or practices are observed.

Employees and Students

All persons subject to this program are responsible for complying with the rules set forth by this program. They must ensure that they:

- Operate aerial and scissor lifts in a safe manner.
- Examine aerial and scissor lifts using the Aerial/Scissor Lift Daily Inspection Checklist prior to each work shift. **NOTE: If the equipment is not used during a** work shift, an inspection is not required during that shift.
- Follow work practices described in this program, including the use of appropriate PPE.
- Report equipment defects and/or maintenance needs to their supervisors immediately.
- Successfully complete all required Aerial Lift/Scissor Lift training.

Contractors

Contractors working on campus are required to comply with all applicable OSHA workplace safety regulations. A contractor's safety program shall be available for review upon request by representatives of EHSO or EHC Safety Management.

1.5 Training Requirements

- Only trained and authorized persons are allowed to operate an aerial lift.
- It is the responsibility of supervisors to ensure their employees are trained and evaluated by qualified persons who have the knowledge, training, and experience to train aerial/scissor lift operators and evaluate their competence. This includes:
 - o Employees within the department who are experienced and competent with



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- aerial/scissor lifts such as a certified operator or supervisor/manager; and
 Equipment manufacturers, safety consultants and/or vendors who specialize in aerial/scissor lift training.
- Training must be specific to the type of aerial/scissor lift being used;
 - At a minimum, the training must cover the following:
 - Manufacturer's requirements;
 - Recognizing and avoiding electrical hazards;
 - Recognizing and avoiding fall hazards;
 - o Recognizing and avoiding unsafe conditions in the work setting;
 - Instructions for correct operation of the lift (including maximum intended load and load capacity);
 - Conducting pre-use inspections and recordkeeping;
 - Tipping hazards and outriggers;
 - Wind exposure limits;
 - Worksite hazard inspections;
 - Proper use of personal protective equipment (PPE);
 - Hands-on operation of the lifts.
- Only employees who have successfully completed training are permitted to operate an aerial/scissor lift;
- When operating rented equipment, employees must have been previously certified on similar equipment or they must be trained.
- Trainees must successfully complete training and a hands-on evaluation before being allowed to operate an aerial/scissor lift independently. Trainees will be given adequate supervision and time to learn basic operating skills.
- Documented re-evaluation of each aerial/scissor lift operator will be completed at least once every three years.
- Refresher training in relevant topics will be provided to an aerial/scissor lift operator when any of the following occur:
 - The operator has been observed using the aerial/scissor lift in an unsafe manner;
 - The operator has been involved in an accident or a near-miss incident;
 - The operator is assigned to operate a different type of lift than the one in which they were previously trained;
 - A condition in the workplace changes in a manner that could affect safe operation of the equipment.

1.6 Recordkeeping Requirements

Each department owning/operating the equipment is responsible for maintaining the following records in order to meet the requirements of this program:

- A listing of all aerial/scissor lifts owned by the department;
- A record of training which includes:
 - Name of the operator;
 - Date or training;
 - o Identity of the person(s) performing the training;
 - Make and model of the aerial/scissor lift.
- Pre-use inspection records are kept for a minimum of one year and must be available for inspection.
- Maintenance and repair records are kept for the life of the equipment and must be available for inspection.



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2.0 Aerial/Scissor Lift Safety Rules

2.1 Inspection and Maintenance

Inspect every aerial/scissor lift prior to each work shift to verify the equipment and all its components are in safe operating condition. Inspection includes but is not limited to the following:

- Cracked welds;
- Bent or broken structural members;
- Proper fluid levels (oil, hydraulic, fuel, and coolant);
- Operating controls and cables;
- Loose wires;
- Steering and brakes;
- Horns, gauges, lights, and backup alarms
- Tire condition;
- Slippery conditions on the platform;
- Operating and emergency controls;
- Personal protective devices;
- Hydraulic, air, pneumatic, fuel, and electrical systems;
- Fiberglass and other insulating components.

NOTE: Aerial/scissor lifts not used during a shift do not need to undergo an inspection during that shift.

Document inspections using an appropriate checklist for the aerial/scissor lift such as the Aerial/Scissor Lift Inspection Checklist found on the EHSO website. (Refer to the manufacturer's inspection requirements for complete inspection details.) Each area/department must keep completed inspections on file for one year. If any unsafe conditions are found, remove the equipment from service by removing the keys and placing an "Out of Service" tag near the operator control panel. Report the condition of the equipment to your supervisor to have repairs made by an authorized person. Only authorized personnel can perform repairs and adjustments to aerial and scissor lifts.

If the aerial work platform is rated and used as an insulated aerial device, the electrical insulating components must be tested for compliance with the rating of the aerial work platform in accordance with the ANSI standard A92.2. Such testing must comply with all of the following provisions:

- Testing is performed at least annually;
- Written, dated, and signed test reports are retained by the department responsible for the insulated aerial device.
- Do not alter the insulated portion of aerial or scissor lifts in any manner that might reduce its insulating value;
- Replace any signs, plates, or decals that are missing or illegible;
- Attach an "out of service" tag or equivalent to the controls inside the platform in a visible location should the aerial or scissor lift become disabled.
- Notify your supervisor to have repairs made by an authorized person.



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2.2 Operating Requirements

- Review and follow the manufacturer's operating manual. Keep a copy of the manual with the equipment.
- Only trained operators may operate aerial and scissor lifts.
- A spotter must be present to watch for and warn the operator of hazards.
- Follow the manufacturer's instructions regarding operation in windy conditions. As a general rule, aerial/scissor lifts shall not be operated in winds exceeding 25 MPH, although this may vary depending on the model of equipment.
- Do not exceed boom and platform load limits specified by the manufacturer.
- Ensure the safety of bystanders by using barricades or have another employee posted to keep bystanders at a safe distance.
- Do not wear any loose clothing or any item that can be caught in moving parts.
- Do not sit or climb on the guardrails of the aerial/scissor lift.
- Do not use planks, ladders, or other devices on the work platform.
- Never override hydraulic, mechanical, or electrical safety devices.
- Never move the equipment with workers in an elevated platform unless permitted by the manufacturer.
- Do not position yourself between overhead hazards, such as joists and beams, and the rails of the basket as movement of the lift could crush the workers.
- Do not place aerial/scissor lifts against another object to steady the elevated platform.
- Do not use aerial/scissor lifts as a crane or other lifting device.
- Do not engage in stunt driving or horseplay while operating an aerial or scissor lift.
- Ensure that there are means for notifying emergency personnel for the prompt rescue of employees in the event of an injury.
 - Determine the means for prompt rescue before the work begins.
 - Prompt rescue may include self-rescue if such means are provided.

2.3 Equipment Specifications

- Ensure all articulating boom and extensible boom platforms, primarily designed as personnel carriers, have both platform (upper) and lower controls.
 - Upper controls are in or beside the platform within easy reach of the operator.
 - Lower controls are provided for overriding the upper controls.
 - o Controls are plainly marked as to their function.
 - Do not operate lower level controls unless permission has been obtained from the employee in the lift, except in case of emergency.
- Aerial lifts may be field modified for uses other than those intended by the manufacturer, provided the modification has been certified in writing by the manufacturer or by any other equivalent entity, such as a nationally recognized testing laboratory. Change the capacity, operation, and maintenance instruction markings as necessary if the manufacturer approves a modification.

2.4 Street Travel and Working Surfaces

- Before the truck is moved for highway travel, secure aerial ladders in the lower traveling position;
- Do not move an aerial/scissor lift when the boom is elevated in a working position with employees in the basket, except for equipment which is specifically designed for this type of operation;



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- Do not operate aerial/scissor lift devices on grades, side slopes, or ramps that exceed the manufacturer's recommendations;
- Maintain a clear view of the path of travel and a safe distance from other obstacles such as: debris, drop offs, holes, depressions, slopes, and overhead hazards.
- Ensure a spotter is present to watch for and warn the operator of hazards that are present.

2.5 Brakes, Wheel Chocks and Outriggers

Set the brakes and position outriggers, when used, on pads or a solid surface. Utilize wheel chocks when operating an aerial lift that is positioned on an incline.

2.6 Electrical Hazards

Maintain at least 10 feet distance from energized overhead power lines when working from an aerial or scissor lift that is not electrically insulated. Only specially trained, high voltage personnel, with approved PPE and in approved insulated lifts, are authorized to work within 10 feet of energized overhead power lines.

2.7 Post Operating Requirements

- Safely shutdown the equipment by utilizing a suitable parking area;
- Place the platform in the stowed position;
- Place controls in neutral and idle the engine for gradual cooling;
- Turn off electrical power and take the necessary steps to prevent unauthorized use.

3.0 Personal Protective Equipment (PPE)

3.1 Aerial Lifts

- Use a body harness that has a lanyard which is affixed to attachment points provided and approved by the manufacturer.
- Follow the manufacturer's recommendations as to which fall protection system is most appropriate.
- Do not tie off to an adjacent pole, structure, or equipment while working from an aerial lift.

3.2 Scissor Lifts

- Personal fall protection is not required on scissor lifts that contain a guardrail system provided personnel remain inside the guardrail.
- Personal fall protection is required on scissor lifts when employees are exposed to fall hazards by working outside of the guardrail system.
- Wear other types of PPE, such as head, eye and hand protection, according to the recommendations from PPE hazard assessments conducted by EHSO.

4.0 **Program Evaluation**

The written Aerial/Scissor Lift Program shall be re-evaluated annually and revised as necessary.

5.0 References

• OSHA Manually Propelled Mobile Ladder Stands and Scaffolds (towers) -



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<u>1910.29</u>

- OSHA Vehicle-mounted Elevating and Rotating Work Platforms 1910.67
- OSHA Aerial Lifts Fact Sheet Publication
- American National Standards Institute (ANSI) A92.2
- Aerial and Scissor Lift Pre-Use Inspection Checklist

6.0 List of Associated Documents

• Aerial/Scissor Lift Pre-Use Inspection Checklist