

College Procedure: 304.17 – Aerial Lift Safety

Policy Reference: 304 – Campus Safety and Security

Responsible Department: Facilities & Public Safety

Approval Authority: Cabinet

Procedure Owner: Vice President, Facilities & Public Safety

Effective Date: 4/1/2014

Version Number: 3

Legal Counsel Reviewed (yes/no): No

Legal Reference(s): Scope: College-wide

Reason for Procedure

This procedure has been developed due to the hazards associated with improper use and the College's concern for the safety of individuals in and around this type of equipment. The procedure outlines general, operating, maintenance, inspection and training requirements governing safe aerial lift use.

The Procedure

Departments using aerial lifts must ensure that supervisors and operators comply with all aspects of this safety program. All Kirkwood employees/authorized students must successfully complete a training program and receive certification prior to the operation of any aerial lift. Contractors operating aerial lifts on Kirkwood 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.

This program applies to the operation of all aerial lifts operated by KIRKWOOD employees and authorized students. Listed are the types of lifts typically used at Kirkwood:

- Genie Lift
- Scissors Lift
- Bucket Truck
- Boom Truck
- Telehandlers
- OSHA Approved Forklift Lift Cage

Aerial Lift Procedures:

• Pre-Use Inspection:



- Prior to the operation of any aerial lift the <u>Pre-Use Inspection Checklist</u> 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 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 the 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 provide the ability to override 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, an "out of service" tag or equivalent shall be attached to the controls inside the platform in a conspicuous location.
- Aerial/scissor lift devices with reported deficiencies shall not be operated until repairs are made and equipment is authorized for use in the <u>Aerial Lift Repair & Maintenance</u> Record.
- Operators must report all accidents, regardless of fault and severity, to their Supervisor.

• Safe Work Practices before Operation:

- Work Area Inspection Checklist must be completed prior to operating any aerial lift.
- 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.
- Aerial lifts shall not be operated, stood on or around if lightning has been detected within 25 miles of the aerial lifts' location.
- 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, by having another employee keep bystanders at a safe distance, or by other means.
- o Aerial lifts shall not be operated from trucks, scaffolds or similar equipment.



• Safe Operation:

- Approved fall protection controls must be in place whenever:
 - operating a bucket/boom lift.
 - operating a scissors lift and the operators foot/feet come off the lift floor or the upper body extends out beyond the protective rail system.
- Attention shall be given towards the direction of travel, clearances above, below and on all sides.
- o Employees shall not sit or climb on the guardrails of the aerial lift.
- o 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 unless designed for that purpose by the manufacturer.
- 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.
- o All tools/equipment must be safely stored 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:

- An aerial lift must be shut down by utilizing a suitable parking area, placing the platform in the stowed position, placing the controls in neutral, idling engine for gradual cooling, turning off electrical power and taking the necessary steps to prevent unauthorized use.
- Aerial lifts must 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 and keep record in the <u>Aerial Lift Repair & Maintenance</u> Record.
- 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.
- o Only use replacement parts that are currently recommended by the manufacturer.



Responsibilities:

- Departments Utilizing Aerial Lifts:
 - Must implement and administer the Aerial Lift Safety procedure.
 - Review the Aerial Lift Safety program annually for compliance and effectiveness.
 - Verify that all employees/authorized students 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 of any problems found, the date when fixed and the name of the person performing the repairs.
 - Make recommendations for revisions, if necessary, to the Vice President of Facilities & Public Safety.
- Supervisory/Training Personnel:
 - Coordinate employee/authorized student training and certify that all operators receive updated training every three years.
 - o Ensure that only trained and qualified individuals use aerial lifts.
 - Verify employee/authorized student compliance with the principles and practices outlined in the Aerial Lift Safety Procedure.
 - o Provide specific operational training for each aerial lift.
 - Observe the operation of aerial lifts and correct unsafe practices.

Operators:

- o Read and comply with the Kirkwood Aerial Lift Safety Procedure.
- o Complete the daily <u>Pre-Use Inspection Checklist</u> before operating any aerial lift.
- Complete the Work Area Inspection Checklist before operating any aerial lift.
- o Review the procedures outlined in this document a minimum of once per year.
- Observe the operation of the aerial lift and report unsafe practices to your supervisory/training personnel.
- Vice President of Facilities & Public Safety:
 - Annually review and update the Kirkwood Aerial Lift Safety Program as necessary.
 - o Provide the general requirements for the safety training program.
 - Monitor the effectiveness of program by receipt of copies of inspection checklists.
 - Evaluate designated areas for aerial lift use.
 - Observe the operation of aerial lifts and report unsafe practices to the appropriate supervisory/training personnel.

Training Requirements:

Employees/students who are authorized to operate aerial lifts must receive training prior to engaging in their duties and at least every 3 years. The training is to ensure that the Kirkwood Aerial Lift Safety Procedure is understood. The supervisory/training personnel will also ensure that authorized aerial lift operators have acquired the necessary practical skills required for safe operation. Training will be



provided by Kirkwood Continuing Education. Operational training will consist of a combination of general safety instruction and practical/operational training. All operational training must be conducted under close supervision.

• Initial Training:

- o Receive instruction on the intended purpose and function of each control.
- Read and understand the manufacturer's operating instructions and aerial lift procedures or receive training by a qualified person on the contents of the manufacturer's operating instructions and user safety rules.
- Be informed of the Aerial Lift operating limitations and restrictions as defined by the manufacturer.
- o Understand 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/students.
- All training and evaluation must be completed before an operator is permitted to use an aerial lift without continual and close supervision.
- Refresher Training must include the following:
 - o Review of the Aerial Lift Pre-Use Inspection & Work Area Inspection checklists.
 - Updated information on new equipment.
 - Review of college written Aerial Lift program.
 - Complete aerial lift operation competency evaluation.

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 (and/or Certificates) must maintained by the department for a minimum of 3 years.

Program Evaluation:

The Kirkwood aerial lift program shall be evaluated on an annual basis utilizing the protocols set forth by Vice President of Facilities & Public Safety. The evaluation team will consist of the Vice President of Facilities & Public Safety and his/her designated review team. Any program deficiencies identified during the evaluation will be documented and corrective action plans will be developed.

References

- OSHA Standard 29CFR 1910.68 (Powered Platforms, Man lifts, and Vehicle-Mounted Work Platform)
- OSHA Standard 29CFR 1926.453 (Aerial Lifts)
- ANSI/SIA A92.6 2006 (Self-Propelled Elevated Work Platforms)
- o Pre-Use Inspection Checklist



- o <u>Work Area Inspection Checklist</u>
- o Aerial Lift Repair & Maintenance Record

Definitions

Term	Definition
Term 1	
Term 2	
Term 3	
Term 4	

Revision Log

Version	Date		
Number	Approved	Approved by	Brief Description of Change
		Troy McQuillen, Vice	
		President, Facilities &	
1	4/1/2018	Public Safety	
2			New template 5/31/2018
			Procedure template
3		Cabinet	9/13/2019