

UC Santa Barbara Aerial Lift and Elevating Work Platform (AL/EWP) Safety Program Manual

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I. Purpose/Introduction

There are a variety of state and federal regulations that govern the occupational use of Aerial Lift/Elevating Work (AL/EWP) equipment. The purpose of this document is to establish procedures that ensure the safe and legal operation of AL/EWP equipment.

II. Applicability/Scope

The Aerial Lift/Elevating Work Platform Safety Program (program) applies to all use of AL/EWP equipment by University of California Santa Barbara (UCSB) faculty, staff, students, volunteers, contractors, and vendors while engaged in University-related activities.

III. Definitions

Aerial Device - Any vehicle-mounted or self-propelled device that is telescoping, extensible, articulating, or both, used to position personnel.

AL - Aerial Lift

AL/EWP - Acronym for "Aerial Lift/Elevating Work Platform"

Boom - An elevating member, the lower end of which is so attached to a rotating or non-rotating base that permits elevation of the free end in the vertical plane.

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

Chassis- the base frame of an AL/EWP or other wheeled conveyance.

Data Plate - The manufacturer's equipment specification and information data, which includes basket load rating, lift capacity, lift heights, vehicle weight, and vehicle attachments. This plate is required to be affixed to all ALs/EWPs by regulatory code. This is the operator's primary source of basic information about their vehicle for safe work and use planning.

Emergency Lowering Means - Any elevating work platform equipped with a powered elevating assembly that has a platform height exceeding 60 inches must be supplied with safe means of lowering the basket or platform during an emergency or malfunction.

EWP - Elevating Work Platform.

Insulated Aerial Device - An aerial device designed for work on energized lines and apparatus.

Energized – Electrically connected to or having a source of voltage or electrically charged.



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Fall Protection - Fall protection is the use of controls designed to protect personnel from falling or in the event they do fall, to stop them without causing severe injury.

Guard Rails - Railing around the perimeter of the work platform. This railing consists of a top rail between 39" – 45" with a mid-rail. Units with the top rail less than 39" must have other fall protection in use to operate.

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

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

MEWP- Mobile Elevating Work Platform.

Outriggers - Extendable legs that are either manually set in place or, in some cases, hydraulically extended to give added stability to the unit base.

Override - The taking over of primary control functions from a secondary location.

Platform - Any personnel carrying device (bucket, basket, cage, stand, tub, or equivalent) that is a component of an aerial device.

Qualified Person - One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated their ability to solve or resolve problems relating to the subject matter, the work, or the project.

Rated Work Load - The safe design live load carrying capacity of the work platform.

Responsible Person – The individual responsible for overseeing campus controlled (owned, leased, borrowed, or rented) AL/EWP equipment.

Stability - A condition of a work platform in which the sum of the moments, which tends to overturn the unit is less than the sum of the moments tending to resist overturning.

Elevated Work Platform, Adjustable - Any device that has a platform which is vertically, horizontally or rotationally adjustable and supported by a structure.

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.

IV. Responsibilities

A. Department Heads and Chairs

Directors and Department Chairs are responsible for:

- Ensuring departmental compliance with the requirements of this program;



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- Identifying “AL/EWP Equipment Responsible Person(s)” and ensuring they have the knowledge and authority to carry out their responsibilities listed below; and
- Providing the necessary resources to ensure the health and safety of their employees.

B. Responsible Persons (PIs, Supervisors, and Equipment Managers)

AL/EWP Equipment Responsible Persons are responsible for:

- Understanding and complying with all program requirements;
- Ensuring an operations and maintenance manual is obtained and included with all AL/EWP equipment;
- Maintaining an up-to-date inventory of Department-owned AL/EWP equipment ([Attachment 1](#));
- Maintaining an up-to-date list of trained/certified operators for each AL/EWP under purview ([Attachment 2](#));
- Ensuring Pre-operation equipment inspections and equipment selection/site hazard evaluations are performed and documented by the operator prior to each work shift ([Attachment 3](#));
- Ensuring proper equipment is selected and used for each task under their purview ([Attachment 3](#));
- Notifying the EH&S Program Administrator of changes in equipment and ensuring equipment not previously approved by the EH&S Program Administrator is reviewed and approved prior to purchase, lease, rental, or operation;
- Identifying qualified operators and ensuring proper AL/EWP certification and training documentation for the equipment they will operate ([Attachment 4](#));
- Keeping an accurate usage log for the piece of equipment that includes the operator's name, use hours, and any problems noted during operation;
- Ensuring maintenance and repairs are performed by a qualified person in accordance with the manufacturer's specifications;
- Ensuring maintenance, inspection, and training records are maintained per the requirements of this program;
- Locking-out and Tagging-out equipment that has not been properly inspected, maintained, or is otherwise unsafe to operate;
- Enforcing safe operation and ensuring all use of AL/EWP equipment under purview meets the requirements of this program; and
- Notifying the EH&S Program Administrator of any unsafe and unauthorized use of equipment under purview.

C. Operators (Faculty, Staff, Students, and Volunteers)

UCSB personnel who operate AL/EWP while engaged in University-related activities are responsible for:

- Understanding and complying with all program requirements;
- Reviewing and understanding the operations and maintenance manual for the equipment operated;



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- Ensuring Pre-use Inspections and Equipment Selection and Site Hazard Evaluations are performed and documented by the operator prior to each work shift using the equipment ([Attachment 3](#));
- Notifying their Supervisor or EH&S about any mechanical, safety or environmental related concern, or hazardous condition(s) observed;
- Only using AL/EWP equipment that they are certified and trained to operate;
- Operating equipment in accordance with instruction and training provided by the EH&S Program Administrator, their Supervisor, the Responsible Person, or a third-party training vendor;
- When not in use, always stowing/securing equipment in a safe manner;
- Informing their Supervisor or the EH&S Program Administrator if they are on medication or have any other conditions or concerns, that could result in unsafe operation of AL/EWP equipment;
- Not disassembling, modifying, or otherwise altering equipment in any way unless approved by the manufacturer and performed by a qualified person; and
- Reporting any observed or suspected malfunctioning of equipment to their Supervisor, Responsible Person, or the EH&S Program Administrator.

D. AL/EWP Equipment Passengers (Non-operators)

AL/EWP passengers must complete applicable Fall Protection training, AL/EWP Awareness training, and receive EH&S Program Administrator and/or Responsible Person approval prior to riding on or in AL/EWP equipment.

Passengers are not to use the operator's controls and are not considered rescue personnel. Passengers must not interfere with the safe operation of AL/EWP equipment.

E. Office of Environmental, Health and Safety (EH&S)

The UCSB AL/EWP Program is administered by the Office of Environmental Health and Safety (EH&S). EH&S is responsible for:

- Designating an individual who is qualified by appropriate training and/or experience to administer the program.

F. Program Administrator

The AL/EWP Program Administrator will function as a technical resource and assist departments in carrying out their responsibilities as necessary. The AL/EWP Program Administrator is responsible for:

- Developing and maintaining the UCSB AL/EWP Program and ensuring it meets applicable regulatory requirements;
- Communicating requirements, objectives, and program changes to departments impacted by this program;
- Developing, maintaining, and providing AL/EWP training and other program materials as needed;
- Overseeing program records and ensuring they are retained for the appropriate amount of time;



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- Working with Responsible Persons to identify safe locations where field training may be conducted;
- Conducting regular program audits to ensure the program is being properly implemented and assess overall program effectiveness;
- Conducting periodic "customer service" inquiries to learn how the program can be modified to better meet client department needs;
- Reviewing new equipment purchases/rentals/leases and ensuring they meet current regulations, are covered by this program, and determine if further specialized training is necessary;
- Keeping an accurate and up-to-date inventory of campus AL/EWP based on information provided by Responsible Persons and information gathered during annual inspections; and
- Assisting with AL/EWP Equipment Selection and Site Hazard Evaluations upon request.

G. Contractors and Vendors using AL/EWP on UCSB Property

Contractors and vendors who are certified under their company's Aerial Lift/Elevating Work Platform Safety Program and have permission from a University Representative, may operate AL/EWP equipment owned/leased/rented by their company on UCSB property. All use of UCSB owned/rented/leased equipment by non-UCSB Personnel must be reviewed and approved by the EH&S Program Administrator. Non-certified or otherwise unqualified operators must be directed to stop work immediately and the incident must be reported to the EH&S Program Administrator.

V. Aerial Lift/Elevated Work Platform Descriptions

A. Equipment Classifications

The American National Standards Institute (ANSI) A92 standards define an aerial lift as a "machine/device intended for moving persons, tools, and material to working positions, consisting of at least a work platform with controls, an extending structure, and a chassis." Aerial lifts are also referred to as Mobile Elevating Work Platforms (MEWPs).

AL/EWP classifications are made up of a lift Type (with reference to traveling) with an associated lift Group (platform location in reference to tipping line):

Type 1 – traveling is only allowed in the stowed position




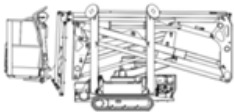
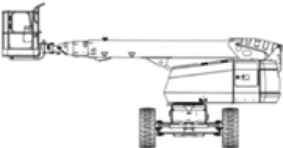
Type 2 – traveling elevated is controlled from the chassis

Type 3 – traveling elevated is controlled from inside the work platform

Group A – vertical projection of the platform is inside the tipping lines at maximum inclination in all configurations

Group B – all other aerial lifts, typically identified as boom-type aerial lifts



ANSI Classification		BNL Job-Performance Measure (JPM) code
<ul style="list-style-type: none"> A92.2 		<ul style="list-style-type: none"> TQ-AERIAL-P92.2
<ul style="list-style-type: none"> Type 1, Group A 		<ul style="list-style-type: none"> TQ-AERIAL-P1A
<ul style="list-style-type: none"> Type 3, Group A 		<ul style="list-style-type: none"> TQ-AERIAL-P3A
<ul style="list-style-type: none"> Type 1, Group B 		<ul style="list-style-type: none"> TQ-AERIAL-P1B
<ul style="list-style-type: none"> Type 3, Group B 		<ul style="list-style-type: none"> TQ-AERIAL-P3B

B. Common AL/EWP Equipment

Articulating Boom Lift - An aerial device with two or more hinged boom sections.



Fall Protection (Restraint) is required when operating this Lift.

Elevating Work Platform - A device designed to elevate a platform in a substantially vertical axis. This device is stationary once set up and cannot be moved. Devices can only be used on a stable level surface.



Fall Protection (Restraint) is recommended when operating this equipment.



Extensible Boom Platform - An aerial device (except ladders) with an extensible boom. Telescopic booms with personnel platform attachments are considered to be extensible boom platforms.



Fall Protection (Restraint) is required when operating this equipment.

Scissor Lift - A device designed to elevate a platform in a substantially vertical axis. This device can also be driven by an operator inside the work platform and is generally designed to carry more than one person. Devices can only be used on a stable level surface.



Fall Protection (Restraint) is recommended when operating this Lift.

Trailer Mounted Lift - A device that can be towed by a vehicle to a work site, then un-hitched. These units have extendable or folding outriggers to give stability while being operated.



Fall Protection (Restraint) is required when operating this Lift.

Vehicle Mounted Lift – These devices typically have a Bucket in place of a basket, which is designed for one person. The vehicle must have the brakes set, wheels chocked, and outriggers in place while operating this device.



Fall Protection (Restraint) is required when operating this Lift.

Pin-On Work Platforms – These devices are designed to be paired with an industrial powered truck (Forklift) to lift employees. **These require authorization for use from the industrial powered truck manufacturer in writing, approval from the EH&S Program Administrator, and specialized training.**



Fall Protection (Restraint) is required when using pin on platforms.





Mast-Climbing Work Platform - A powered elevating work platform or platforms, supported on one or more vertical masts, for the purpose of positioning personnel, along with necessary tools and materials, to perform their work. The device can only be used on a level surface. **These require approval from EH&S and specialized training.**



Fall Protection systems must be used when there is a gap in the guardrail system.

Orchard Lift - An aerial device designed to elevate and position personnel for the purpose of harvesting and/or pruning fruit and nut trees. **These require approval from EH&S and specialized training.**



Fall Protection (Restraint) is required for guardrails less than 42" above platform.

VI. Requirements/Procedures

A. Responsible Persons (PIs, Supervisors, and Equipment Managers)

Department Directors and Chairs that own, lease, rent, or otherwise operate AL/EWP equipment must identify Responsible Person(s) who are responsible for implementing the following program requirements:

Evaluation of AL/EWP Equipment Needs and Worksite Hazards

The Responsible Person must ensure that hazards have been evaluated and equipment needs are assessed prior to AL/EWP equipment procurement and operation. A completed copy of the AL/EWP

Pre-use Inspection Form must be available for each mobilization at each worksite ([Attachment 3](#)). See Pre-Use Inspection below under [Equipment Operators](#).

New AL/EWP Equipment and Inventory Updates

The Department Equipment Inventory is used to identify manufacturer, type/group, power source, nameplate data, max lift capacity, and operation location ([Attachment 1](#)).

Approval from EH&S must be obtained prior to purchasing/renting/leasing/operating equipment not previously reviewed and approved by the Program Administrator in order to ensure the following:

1. Equipment meets current Cal/OSHA standards



2. Equipment is covered in this program
3. Further specialized training is conducted, if required

Assembly or Erection of ALs/EWPs

ALs/EWPs must be assembled and erected by a qualified person in accordance with the manufacturer's specifications and must be maintained in safe operating condition. If the manufacturer specifications are not available, assembly and erection must be performed by a qualified person under the direction of a registered professional engineer experienced in the design of elevating work platforms or aerial devices.

Overhead Utilities

For working near energized overhead power lines, operators must receive electrical safety training and ALs/EWPs must maintain the respective minimum clearance based on grounded voltage as described in [Title 8 Cal/OSHA §5003.1. Power Line Safety.](#)

Equipment Manuals, Instructions, and Marking

AL/EWP equipment at all times must have a manual containing instructions for operation and maintenance stored in a weather resistant storage location on the equipment. If the AL/EWP is able to be operated in different configurations, these configurations must be clearly described, including the rated capacity in each configuration. Each AL/EWP must have a conspicuously displayed legible data plate or other legible marking verifying the unit meets applicable ANSI standards as specified in [Title 8, Cal. Code Regs., section 3638\(b\)\(1\) or \(2\).](#)

The plate must also contain the following data, when applicable:

- Make, model, and manufacturer's serial number;
- Rated capacity at the maximum platform height;
- Maximum platform travel height;
- Maximum recommended operating pressure of hydraulic or pneumatic system(s) or both;
- Basic cautions or restrictions of operation or both;
- Basic operating instructions, and/or instructions referring users to the manufacturer's operating manual;
- Rated line voltage (if applicable); and
- In addition to the above, alternative configurations must require:
 - Chart, schematic, or scale showing capacities of all combinations in their operating positions; and
 - Description of capacity restrictions for alternate or combinations of alternate configurations.

Annual Equipment Inspections

Annual equipment inspections must be performed at least every 13 months by a qualified person and in accordance with the manufacturer's recommendations. Records of inspections must document the date of inspection, any deficiencies found, the corrective actions recommended (if any), and the name(s) of the qualified individual(s) performing the inspection. Inspection records must be retained



for at least 3 years.

Equipment Maintenance

Maintenance must be performed in accordance to the manufacturer's recommendations/specifications which includes standard specifications of strength, dimensions, and weights. Maintenance records must include the date of the work, a description of the work performed, and the names of the qualified person(s) performing the work. All maintenance records must be kept for the life of the equipment.

Equipment Lock Out/Tag Out

If deficiencies are noted during AL/EWP operation, inspections, or maintenance, the equipment must be Locked out and Tagged out and removed from service immediately. Isolated equipment must not be put back into service until all deficiencies are corrected and corrections have been documented. Equipment must be isolated by controlling all keys for the vehicle, and placing a warning tag near the controls with the following information:

- Person's name that has locked out and tagged out the AL/EWP and has the keys in their possession as well as their contact information;
- Date AL/EWP was removed from service;
- Reason(s) for Locking out and Tagging out the AL/EWP including all noted deficiencies (A photocopy of the completed inspection form may be taped to the basket or steering wheel if on a vehicle-mounted lift for this purpose; and
- Name and contact information for the department's responsible person for implementation of this program.

Identifying Certified Operators

The responsible person must ensure that operators hold current certification(s) in the types/groups of equipment they are authorized to use. Please see Training Requirements for more information on the operator certification process. A current list of certified equipment operators can be found online using the [Skills Certification Matrix](#).

B. Equipment Operators

Equipment operators must hold current certification(s) for the classification(s) of equipment they operate and are responsible for the following:

Operation Requirements

Equipment operators must review the operation manual for the corresponding AL/EWP to ensure safe use in accordance with manufacturer recommendations. When two operators are working as a team, it is recommended that hand signals are established to communicate when elevated work-related noise impedes verbal communication capabilities.



Pre-Use Inspection

Operators must conduct a documented "Pre-Use Inspection" of AL/EWP equipment and an Equipment Selection and Site Hazard Evaluation for each worksite prior to equipment operation. Results of the inspection are documented on the Pre-Use Inspection Form ([Attachment 3](#)).

The AL/EWP pre-use equipment inspection ensures that all deficiencies discovered during a Pre-Use inspection are corrected. If a deficiency is discovered during the Pre-Use Inspection, the operator alerts their supervisor and the Responsible Person of the condition, and ensures the equipment is Locked out and Tagged out until resolved.

The AL/EWP pre-use equipment selection and site hazard evaluation ensures that proper AL/EWP equipment is selected for the work, and that all hazards in the work area are identified and mitigated prior to commencing work. Unusual or potentially hazardous areas or operations in a location's work environment must be marked with appropriate warnings via signage and paint striping, and reduced through operator training, and appropriate equipment selection and maintenance.

One Pre-Use Inspection Form must be completed by the Operator or Responsible Person prior to operating equipment, when relocated to new unfamiliar locations, or when a new hazard is identified on AL/EWP equipment or in the site vicinity.

Records of inspections must be maintained for at least three (3) years.

Fall Protection Equipment (FPE)

The Responsible Person ensures required FPE is available and worn by equipment operators when applicable. Full body harnesses must be used with a fall restraint lanyard or self-retracting lifeline when required. Restraint system must limit the ability of the operator to fall over the edge of the guardrails and contain the operator to the safe working area. Operators must inspect all FPE prior to use and a documented FPE inspection is required every six months. Damaged equipment must be addressed and replaced immediately. See the [UCSB Fall Protection Safety Program website](#) for more information and requirements.

Personal Protective Equipment (PPE)

Adequate Personal Protective Equipment (PPE) is required to safely operate an AL/EWP. Based on the work environment and type(s) of equipment included in this program, the following PPE is required:

- Hard hat
- Safety gloves
- Protective footwear
- Safety glasses

Additional recommended PPE includes:

- Hearing protection (for work related noise in excess of 85 decibels)
- High visibility reflective safety vest (for traffic areas and areas with multiple workers)



- Long-sleeved shirt (for skin protection from non-chemical debris and sun exposure)

AL/EWP Operation in Enclosed Areas or Hazardous Atmospheres

Internal combustion engine-driven equipment may be operated inside of buildings or enclosed structures, only when such operation does not result in harmful exposure to concentrations of dangerous gases or fumes (mitigations include opening bay doors, increased ventilation, or forced air ventilation).

ALs/EWPs may not be operated in atmospheres containing more than 20 percent of the Lower Explosive Limit of flammable gas or vapor unless approved based on regulations indicated in National Fire Protection Association (NFPA) 505-1982 with appropriate labeling.

Please contact EH&S for an evaluation prior to conducting work if it is suspected that internal combustion AL/EWP equipment could affect indoor air quality.

Operating Procedures/Hazard Identification and Controls Common to ALs/EWPs:

Prior to operation at the beginning of each work-shift, operators must review and assess the following equipment/work area conditions:

1. Ensure operation and maintenance manual is stored on equipment in a weather proof case.
2. Review work area for hazards, and remove/control them prior to operation.
3. Always conduct a documented AL/EWP Pre-use Inspection and equipment selection/site hazard evaluation prior to selecting and using AL/EWP equipment ([Attachment 3](#)).
4. Ensure the surface upon which the unit is being operated is level with no hazardous irregularities or accumulation of debris which might cause a moving platform to overturn.
5. Position equipment on a firm surface and utilize blocks or ramps for leveling the AL/EWP equipment.
6. Always set outriggers prior to use if the AL/EWP is equipped with them. When used, outriggers must be positioned on pads or a solid surface. All outriggers must be equipped with hydraulic holding valves or mechanical locks at the outriggers.
7. Only use AL/EWP equipment designed to safely work in the work-area conditions observed.
8. Always check weather and wind conditions at the work location; the manufacturer's operation and maintenance manual may have warnings and/or limitations with operating during wind events.
9. Review operating instructions, limitations, warnings, and precautions for the type of AL/EWP operated.
10. Verify if the AL/EWP is the type that allows horizontal movement when basket is



elevated.

11. Alert all persons in the work area of intended work activities and hazards, use signs, caution tape, and/or barricades if needed.
12. Always face the direction of travel.
13. Use extreme caution when traveling horizontally with the platform elevated or extended.
14. Don't exceed the basket, bucket, or platform capacity.
15. Lower level controls must not be operated unless permission has been obtained from the employee in the device, except in case of emergency.
16. When traveling to the work location, only one person may be in/on the equipment; no passengers.
17. Wear proper fall protection and only tie-off to the work platform's fall protection tie-off point(s).
18. Only Fall restraint is approved for AL/EWP use. Contact EH&S for fall arrest considerations.
19. Pin-on safety guardrails must be attached and securely pinned to the platform at all times.
20. Review the operation and maintenance manual to understand the weight relationship between horizontal force and potential tip over of an AL/EWP.
21. "Barrier off" the lift swing radius below the AL/EWP equipment's work zone.
22. Don't sit or climb on guardrails, climb on ladders, or stand on other items when working on the basket, bucket, or platform.
23. Practice good housekeeping in the site vicinity and on AL/EWP equipment.
24. Never drop or throw objects to or from the work basket, bucket or platform.
25. Never lean the basket or bucket on or against structures.
26. Always look below the platform and confirm it's safe before lowering the equipment.
27. Ensure platform is equipped with a minimum 4" toe board to prevent falling objects.
28. Never use the boom to push against something, or try and pull the AL/EWP equipment along in a horizontal direction.
29. Never use the AL/EWP to push or pull against something in any direction.

C. Training Requirements

AL/EWP Approved Trainers

UCSB personnel must be trained by qualified EH&S personnel or an approved third-party training vendor. Individuals must meet the [qualified person definition](#) to be approved as a trainer. EH&S or the approved third-party training vendor will ensure individual operators are trained, competent in their responsibilities, and in compliance with Cal/OSHA requirements.



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Responsible Persons

Responsible Persons will receive guidance and support from the AL/EWP Safety Program Administrator concerning their responsibilities in implementing training for this program.

Operator Training and Certification Procedures

All Responsible Persons must ensure AL/EWP operators successfully complete training and certification prior to operation of AL/EWP equipment. Operators may only operate the type/group of AL/EWP equipment that they are certified for, unless under the direct supervision of persons who have the knowledge, training and experience to train operators and evaluate their competence while operating equipment.

Training must be conducted in a location where AL/EWP equipment operation does not endanger property, the trainee, or others. Please contact the Program Administrator to provide guidance and training resources for Department personnel.

Utilize [Attachment 2](#) or equivalent to document and track trained Certified Operators for ALs/EWPs under responsible person purview.

Operator Certification

Upon successful completion of training, the EH&S Program Administrator or approved third-party training vendor will certify that the operator has been trained and evaluated as required by this program and Cal/OSHA regulations. The certification is valid for three (3) years.

For a current list of certified equipment operators, refer to the [Skills Certification Matrix](#) posted online.

AL/EWP Operation Coursework Training

Operation coursework training must include familiarization with equipment classifications, components, hazard assessment and mitigation, equipment inspection requirements, and other requirements of this program. Successful completion is documented through a final exam that demonstrates the trainee's understanding of basic AL/EWP operation, safety, and fall protection requirements with a passing grade.

Hands-On 'Practical' Training

Individuals may only proceed with hands-on training after successful completion of the coursework component. Hands-On training and testing must be conducted using a representative piece of AL/EWP equipment under the direct supervision of approved UCSB EH&S personnel, third-party training vendor, or Responsible Persons with the knowledge, training, experience to train AL/EWP operators and evaluate their competence. Approval for UCSB Responsible Person/Qualified Person-led training must be obtained by EH&S.



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Field training using AL/EWP equipment includes demonstrations performed by the trainer, practical exercises performed by the trainee and observed by the trainer, and a documented evaluation of the trainee's performance ([Attachment 4](#)).

Fall Protection Training

Fall protection training must be included for all Fall Protection-required ALs/EWPs. Refer to [Common AL/EWP Equipment](#) to determine fall protection requirements for the equipment planned for use.

For Fall Protection-required equipment, each operator must own Fall Protection Equipment that is inspected per regulatory requirements and be trained in Fall Protection safety prior to AL/EWP use.

Additional resources are included in UCSB's [Fall Protection Safety Program](#).

Refresher Training

Cal/OSHA requires refresher training to ensure the operator has the knowledge and skill needed to operate AL/EWP equipment safely when:

- The operator has been observed operating the AL/EWP in an unsafe manner;
- The operator has been involved in an accident or near-miss incident;
- The operator has received an evaluation that reveals that the operator is not operating the AL/EWP safely;
- The operator is assigned to a classification of AL/EWP that they are not currently certified for;
- A condition in the workplace changes in a manner that could affect safe operation of the AL/EWP;
- The operator suffered a medical event that would require re-evaluation; or
- The operator's current certification has expired.

VII. Recordkeeping Requirements

A. Responsible Persons

Responsible Persons must maintain accurate and readily available records of the following:

Records	Retention Period
Pre-operation Inspection Forms	1 year
Annual Inspection Records	3 years
Equipment Maintenance Records	Life of Equipment
Rental/lease/purchase agreements	1 Year
Current Operator Training Records	3 Years



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B. EH&S Program Administrator

The EH&S Program Administrator will maintain accurate and up to date records of the following:

- Operator training records for training conducted or provided by EH&S
- Campus AL/EWP Equipment Inventory

VIII. References

The following Title 8 Cal/OSHA standards were used to help establish the requirements of this program:

- [§1670. Personal Fall Arrest Systems, Personal Fall Restraint Systems and Positioning Devices](#)
- [§5003.1. Power Line Safety](#)
- [§3636. Application](#)
- [§3637. Definitions](#)
- [§3638. Equipment Instructions and Marking](#)
- [§3639. Factors of Safety in Design of Work Platform Assembly](#)
- [§3640. Maintenance and Repairs](#)
- [§3642. Platform Equipment](#)
- [§3645. Stability on Inclined Surfaces](#)
- [§3646. Operating Instructions \(Elevating Work Platforms\)](#)
- [§3647. Pin-On Platforms](#)
- [§3648. Operating Instructions \(Aerial Devices\)](#)

IX. Issued by and Next Review Date

Issued By: Bryan E. Bowe, Safety Specialist, AL/EWP Program Administrator

Date: August 1, 2024

Next Review Date: July 26, 2026 or if necessitated by deficiencies identified and/or regulatory updates.

X. Links & Attachments

Link - [UCSB Industrial Safety - Skill Certification Matrix](#)

Attachment 1. [Department AL/EWP Inventory](#)

Attachment 2. [Trained/Certified Operator List](#)

Attachment 3. [Aerial Lift/EWP Pre-Use Inspection Checklist](#)

Attachment 4. [Aerial Lift/EWP Operator Skills Evaluation Form](#)



Attachment 1

Department Aerial Lift/EWP Inventory



UC Santa Barbara Aerial Lift/Elevated Work Platform Safety Program

ATTACHMENT 1 – DEPARTMENT Aerial Lift/EWP INVENTORY

Manufacturer	Group/Type	Power Source	Nameplate Data	Max. Lift Capacity	Location	PPE/Uses
Example: Genie	Group A/Type 2 Walkie Stacker	Electric/AC-DC	Model ZH1 S/N 456JV12X798	Platform 600 lbs.	Theater and Dance	Full Body Harness w/Lanyard General Scene Shop/Theater use

Date: _____ Equipment Owner/RP Name: _____



Attachment 2

Trained/Certified Operator List



UC Santa Barbara Aerial Lift/Elevated Work Platform Safety Program

ATTACHMENT 2 – TRAINED/CERTIFIED OPERATOR LIST

Operator Name	Equipment Type(s) by Group/Type	Operation Location(s)	Certification Date	Certification Expiration Date (three years)	Notes
Safety Seymour	Type 1, Group A Type 2, Group B	Facilities Management Campus-wide	7/25/24	7/25/27	Next FPE Inspection: 2/25/25 Next Fall Protection Training: 7/25/25

Date: _____ Equipment Owner/RP Name: _____



Attachment 3

AL/EWP Pre-Use Inspection Checklist



ATTACHMENT 3 - AERIAL LIFT/EWP PRE-USE INSPECTION CHECKLIST

Operator Name (print):	Department:
Unit Type (check appropriate): <input type="checkbox"/> Scissor Lift <input type="checkbox"/> Articulating Boom <input type="checkbox"/> Extensible Boom <input type="checkbox"/> Other: _____	Date:
	Location of Use:

	UNIT INSPECTION ITEM DESCRIPTION	PASS	FAIL	N/A
1	The manufacturer’s operation manual is stored on the unit			
2	Operator is trained and certified			
3	Unit is inspected/maintained per manufacturer specifications			
4	Operating and emergency controls are in proper working condition [including emergency stop mechanism(s)]			
5	Functional platform drive controls are in proper working condition			
6	Emergency lowering mechanism operates properly			
7	Lower operating controls successfully override the upper controls			
8	Both upper/lower/platform controls are protected from inadvertent operation			
9	Control panel is clean and all buttons/switches are clearly visible			
10	All switch and mechanical guards are in good condition and properly installed			
11	All safety indicator lights work			
12	All drive controls function properly and are accurately labeled			
13	Motion alarms function properly			
14	Safety decals are in place and readable			
15	All guardrails are sound and in place, including basket chains			
16	Work platform and extension slides are clean, dry, and clear of debris			
17	Platform extensions: slide in and out freely with functioning safety locking pins			
18	Inspected for defects, including cracked welds, fuel leaks, hydraulic leaks, drive hub leaks, oil leaks, damaged control cables or wire harness, etc.			
19	Tires and wheels are in good condition with adequate air pressure (if pneumatic)			
20	Braking devices are operating properly			
21	Oil level/Hydraulic Oil Level/Fuel Level/Coolant Level is acceptable			
22	Battery charge acceptable and meter operational			
23	Fully charged and operable fire extinguisher is available			
24	Outriggers in place or functioning and associated alarms working			

Equipment Selection and Site Hazard Evaluation	Check to Confirm
Required PPE/FPE in use (harness, lanyard, hardhat, etc.)	
Equipment rating does not exceed load capacity / correct equipment for access/work planned	
See manufacturer guidelines for use in windy conditions (lower if AL/EWP begins to rock in the wind)	
Floor/ground conditions: drop offs, holes, uneven surfaces, and sloped floors	
Housekeeping: debris, floor obstructions, cords, construction materials and supplies	
Lighting: there is adequate lighting for work zone safety	
Location of electrical power cables or panels (keep minimum 10 ft. away)	
Look for chemical lines, gas lines, drain lines, and utilities	
Location of overhead obstructions	
AL/EWP equipment exhaust does not create hazardous atmospheres	
Watch for vehicular and pedestrian traffic (set up barricades if necessary)	
Hour Meter Reading at Start: hrs. Operator Employee ID#: Operator Signature:	

If the Aerial Lift or EWP fails any part of this inspection, remove the key and report the problem to your supervisor. DO NOT operate. Submit completed checklist to UC Dept. equipment owner for review/recordkeeping.



Attachment 4

AL/EWP Operator Skills Evaluation Form



ATTACHMENT 4 – AL/EWP OPERATOR SKILLS EVALUATION FORM

<p>Fall Protection Training Yes <input type="checkbox"/> No <input type="checkbox"/> Date Completed:</p>	<p>Aerial Lift Operator Safety Course Classroom: Yes <input type="checkbox"/> No <input type="checkbox"/> Date: Written Exam: Yes <input type="checkbox"/> No <input type="checkbox"/> Date: Pass: <input type="checkbox"/> Fail: <input type="checkbox"/> Score:</p>
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HANDS-ON SKILLS EVALUATION

Types of Equipment

Manually-Propelled Elevating Platform Type 1, Group A
 Trailer Mounted Aerial Lift Type 1, Group B
 Telehandler with working platform Type _____, Group B
 Scissor Lift Type 3, Group A
 Vehicle Mounted Lift (Bucket Truck)
 Articulating Boom Lift Type 3, Group B

I. HAZARDS & SAFETY CONSIDERATIONS

	PERFORMANCE MEASURE	SAT	UNSAT	NA
1	Check work surface slope, conditions, weight limits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Checks travel route and approach clearances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Identifies overhead electrical hazards & safe distance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Ensure clearance with overhead obstructions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Establish a safe work zone using barricades	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Has/uses required PPE and Fall Protection equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

II. PRE-OPERATION CHECKS

	PERFORMANCE MEASURE	SAT	UNSAT	NA
1	Ensures manufacturers manual is on unit and understood by the operator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Ensures warnings, decals, data plates & control markings are present & readable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Visually inspects tires, rims, axles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Visually inspects platform structure, guard rails, hand rungs, fasteners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Checks fluid levels, belts, chains, cables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Checks electrical systems, components & batteries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Checks hydraulic/pneumatic systems & components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Checks capacity indicator & movement alarms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Checks pothole protectors, outriggers, and out-of-level warnings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Start Engine, check emergency shut-off, level indicator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Perform all aerial platform control function tests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hands-On Skill Evaluation

III. OPERATING SKILLS

	PERFORMANCE MEASURE	SAT	UNSAT	NA
1	Deploy / Set-up outriggers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Mount & dismount safely using 3 points of contact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Dons & secures personal fall arrest harness & restraint lanyard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Connects lanyard to fall protection anchor point	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Drive and creep/inch forward & reverse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Raise and lower platform using on-board controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



7	Boom up & down, in & out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Rotate/swing 360 degrees in each direction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Operate emergency controls with & without power	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Remove and store outriggers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Secure the unit and work area in a safe manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IV. GRADING (PASS / FAIL)

<input type="checkbox"/> Based on my evaluation, the operator <i>has successfully completed</i> the evaluation and is to operate the following class of equipment:	<p><u>Equipment Used for Practical Test:</u></p> <input type="checkbox"/> GENIE AWP30 Manually Propelled Lift <input type="checkbox"/> GENIE AWP20 Manually-Propelled Lift <input type="checkbox"/> GENIE 3246 Scissor Lift <input type="checkbox"/> GENIE GS332 Scissor Lift <input type="checkbox"/> GENIE GR20 Self-Propelled Lift <input type="checkbox"/> GENIE TZ-50 Trailer-Mounted Articulating Boom Lift <input type="checkbox"/> GENIE Z 34-22 Self-Propelled Articulating Boom Lift <input type="checkbox"/> JLG 20MVL Self-Propelled Single Mast Lift <input type="checkbox"/> JLG 20DVL AXCESSOR™ Self-Propelled Single-Mast Lift <input type="checkbox"/> Other:
<input type="checkbox"/> Based on my evaluation, the operator <i>has not demonstrated competence</i> in operating the following class of equipment:	
V. EVALUATOR COMMENTS	

Operator Signature:	Date:
Evaluator Signature:	Date: