Aerial Lift and Elevating Work Platform Safety Program

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Team: EH&S/General Safety

Description: This program guides all aspects of the **Aerial Lift / Elevating Work Platform Safety Program** for the University of California at Riverside. As mandated by Cal/OSHA and other regulatory compliance codes, this program guides compliance with, and application of, all legal requirements for UC Riverside departments, field stations and work / research operations that use these types of equipment.

Departments that own, rent and/or otherwise operate Aerial Lifts / Elevating Work Platforms (AL/EWP) must:

1. Select and then purchase or rent appropriate equipment for job tasks based upon a work-environment and job-task hazard analysis,
2. Ensure that all personnel who operate their specific type of owned / rented equipment have been trained, licensed, familiarized with, and authorized to operate them.
3. Ensure documented safety inspections and preventive maintenance of the equipment are conducted by a Competent Person,
4. Assure operators adhere to specific safe-work practices whenever using these types of powered industrial equipment, and
5. Approve Contractors / Vendors to use AL/EWP equipment on their premises, and only allow properly licensed contractor / vendor personnel to use Department-owned equipment.

For basic information about this program, please review the AL/EWP Safety Program FAQ/Fact Sheet to become familiar with program requirements, equipment and environmental hazards and their controls.

For easy navigation and access to all sections of the AL/EWP Safety Program, please proceed to the AL/EWP Safety Program Table of Contents.

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Purpose

This program guides all aspects of the Aerial Lift/Elevating Work Platform Safety Program for the University of California at Riverside. As mandated by Cal/OSHA and other regulatory compliance codes, this program requires departments that own and/or operate Aerial Lifts/Elevating Work Platforms (AL/EWP) to train and license personnel who operate their equipment, conduct pre-operation safety inspections and preventive maintenance of the equipment, and adhere to specific safe-work practices whenever using these types of powered industrial equipment.

Applicability/Scope

This program applies to all University of California at Riverside Faculty, Staff and Students who are required or request to operate Aerial Lift/Elevating Work Platform (AL/EWP), or who must oversee persons operating AL/EWP, for any portion or aspect of their research, instruction and/or work.

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Roles/Responsibilities

All UCR Staff, Faculty and Students

All UC Riverside Faculty, Staff and Students who are required or request to operate AL/EWP, or who must oversee persons operating AL/EWP, must know about the requirements of this program. Operators are trained in the safe operation of AL/EWP resulting in 3-year licensure to operate specific types of AL/EWP equipment.

Departments that own/use AL/EWP

Departments that own, operate, or allow the operation of AL/EWP at their facilities assure that all UC Riverside Faculty, Staff, or Student operators in their Department have current AL/EWP licensure issued by the Office of Environment, Health and Safety (EH&S). They also must designate a DSC or other Responsible Person to oversee program implementation within the Department.

Department Safety Coordinators and/or "Responsible Person"

This person assures that all aspects of this program are implemented in their Department including current operator licensure from EH&S, scheduling training/retraining as needed, and maintain program training and inspection records.

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AL/EWP Equipment Operators

All Aerial Lift or Elevating Work Platform operators must obtain an Operator's License from EH&S prior to operating AL/EWP equipment. This license is obtained by successfully completing a two-part "AL/EWP Safety Training" conducted by EH&S/General Safety. This includes classroom/online training plus hands-on training followed by documented quiz / testing ***and*** the successful completion of the "hands-on" Operator Skills Assessment.

Contractors / Vendors using AL/EWP on UCR Property

Contractor or Vendor employees that have been trained under their company's Aerial Lift/Elevating Work Platform Safety program, and have a UC Riverside Department's permission, may operate AL/EWP equipment owned/leased/rented by their employer on UC Riverside premises. Contractors who use AL/EWP equipment that is owned and/or rented/leased by a UC Riverside Department must demonstrate to the Department's DSC or Responsible Person their current licensure for operation of the specific type of AL/EWP before they are allowed to operate the UC Riverside owned / leased / rented equipment. Whether the operator is a vendor or contractor, they may be required to show verification that they have been trained and licensed on the specific AL/EWP equipment being operated by any UC Riverside Department representative. If contractor / vendor employees are found to be unlicensed, all work must stop immediately until properly licensed personnel are present to operate the AL/EWP equipment.

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EH&S – (Aerial Lift/Elevating Work Platform Safety Program Manager)

EH&S manages this program for UCR through the direction of the "Aerial Lifts/Elevating Work Platform Safety Program Manager". This person is responsible for all aspects of managing and implementing this program including:

1. Assures this program is revised periodically to maintain compliance with codes and regulations as they change, and update as need may dictate.
2. Communicates program changes, objectives and requirements to all departments impacted by this program.
3. Develops and updates training content as needed.
4. Manages program databases and records of Operator Licensure.
5. Conducts 'hands on' field training and assessment of Operator trainees.
6. Works with client departments to develop training for unique and "department-specific" Aerial Lift or Elevating Work Platform needs.
7. Works with client departments to find safe locations to conduct "hands on" field training.
8. Conducts periodic program audits at client departments to assure the program is being properly implemented and followed.
9. Conducts periodic "customer service" inquiries to learn how the program can be modified to better meet client department need.
10. Modifies program content and procedures as needed to improve program effectiveness and ease of implementation and tracking.

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Definitions

Aerial Device: Any vehicle mounted or a self propelled device that is telescoping extensible, articulating, or both, and is primarily designed to position personnel.

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 combination of steel and the weight of the battery on electric lifts, that counter balances the boom leverage and basket load.

Data Plate: 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 Aerial Lift Equipment by regulatory code. This is the vehicle 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, and having a platform height exceeding 60 inches, must be supplied with safe means of lowering the basket or platform during an emergency or malfunction.

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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 locations with tip-over hazards.

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 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.

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

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

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.

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Types of Aerial Lift/Elevated Work Platforms

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

Fall Protection 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 setup and cannot be moved.

Fall Protection is not required when operating this equipment, but is highly recommended.

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 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.

Fall Protection is not required when operating this Lift, but is highly recommended.

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 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. Vehicle must have the brakes set, wheels chocked, and outriggers in place while operating this device.

Fall Protection is required when operating this Lift.

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Program Requirements/Operator Procedures

Administrative Requirements

Department Management is responsible for purchasing / owning or selecting / leasing the AL/EWP equipment and must designate the person(s) responsible for implementing the following program requirements:

Identify / Evaluate AL/EWP Equipment Requirements and Site Hazards

Based upon the Operator's AL/EWP use, and the "Site Evaluation Checklist" for each type of AL/EWP equipment, the Department determines hazards throughout the Department encountered during AL/EWP use, and procures and outfits AL/EWP that will safely operate in the Department's work environment with the anticipated maximum reach and work platform capacity required. Unusual or potential hazardous locations or operations in a Department's work environment are marked with appropriate warnings via signage and paint striping, or reduced through Operator training and appropriate equipment selection/maintenance.

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Inventory Department AL/EWP Equipment

The Department conducts and maintains an inventory list of AL/EWP Equipment owned/used by the Department. This list is used to identify training needs, equipment maintenance requirements, and to identify and limit equipment to safe use for department business activities. This list is updated periodically as the Department procures or retires equipment, and is referenced to determine what equipment requires Operator's Licensure for use. Refer to Attachment 1 for a template that may be used to develop your department's AL/EWP Equipment Inventory.

Identify Department Personnel Requiring AL/EWP Equipment Training

The Department identifies specific Department Personnel and others who are allowed to operate the Department's AL/EWP. This list is used to identify training needs and to identify and limit equipment to safe use for department business activities. This list is updated periodically as the Department manages compliance with this program, when lifting needs and/or equipment changes, and when personnel are enrolled in or leave this program. Refer to Attachment 2 for a template that may be used to develop your department's AL/EWP Equipment "Operator Roster", or enroll personnel in the University's Learning Management System for the AL/EWP Safety Program online.

Assure Training/Qualification/Retraining of Department Personnel

Cal-OSHA requires that all AL/EWP equipment operators are enrolled in and receive initial training, and retraining at minimum every three years. See the training section of this program for details on training requirements and activities.

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Operator Training / Licensing Procedures

Each Operator must successfully complete Operator Safety Training prior to operating AL/EWP equipment on UCR property. Operators may only use the AL/EWP equipment type they have been trained and licensed to operate, or when under the direct supervision of persons who have the knowledge, training and experience to train operators and evaluate their competence "in the field". Training is conducted in a location where such AL/EWP equipment operation does not endanger property, the trainee, or others. Departments must arrange for their personnel to be licensed by EH&S to operate AL/EWP equipment.

EH&S ensures that each AL/EWP operator is competent to operate AL/EWP equipment safely and in compliance with Cal/OSHA requirements, as demonstrated by the successful completion of the training and evaluation specified below. Training consists of a combination of written, classroom, followed by hands-on "field" training and documented testing that's specific to the AL / EWP equipment. Please contact EH&S at 827-2609 to arrange training for Department personnel.

Written / Classroom Training

Written / classroom training includes familiarization with equipment types and components, hazard assessment and mitigation, equipment inspection requirements, and other requirements of this program. Upon successful completion of classroom training, the trainee then takes hands-on training in the field. EH&S tracks owner Department training records on the ***University's Learning Management System (LMS).***

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Written Tests

Classroom training is verified through a written final exam that demonstrates the trainee's understanding of basic AL/EWP operation and safety. Completion of this classroom training exam with a passing grade of 75% or more is required before the scheduling of the hands-on/field training. Records of completed exams are kept by the LMS or EH&S/General Safety, and also optionally by the Department in the trainee's personnel file.

Hands-On / Field Training / Testing

The "Hands-On" training and testing is conducted using a representative piece of AL/EWP equipment under the direct supervision of the EH&S/General Safety Trainer and/or AL/EWP Safety Program manager who has the knowledge, training and experience to train AL/EWP operators and evaluate their competence. Field training using AL/EWP equipment includes demonstrations performed by the trainer, practical exercises performed by the trainee and observed by the trainer, as well as evaluation of the trainee's successful performance on a standard 'skills assessment' course that is documented for recordkeeping purposes on the LMS and/or by EH&S/General Safety staff.

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Operator Licensing

When the trainee successfully completes both written and hands-on testing, UC Riverside EH&S certifies and then "licenses" that the Operator has been trained and evaluated as required by this program and Cal-OSHA. The license includes the name of the operator, the licensure / training date, the name of the person(s) performing the training or evaluation, and the types (equipment models) of AL/EWP the operator is/are licensed to operate. See Attachment 3 for photo of what a UC Riverside AL/EWP - Industrial Equipment License looks like.

An Operator's License is issued by EH&S, is credit-card size, and must be carried by the Operator whenever they are operating an AL/EWP on UC Riverside property. This is a one-time training with no expiration date. However, retraining may be required if equipment, job tasks or environmental conditions change significantly from those when original training took place. The Operator is responsible to schedule identify situations where additional / re-training/licensure may be needed and alert their Department's DSC/responsible person.

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Refresher Training

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

- The operator has been observed to operate 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 different type of AL/EWP that they haven't been trained on.
- A condition in the workplace changes in a manner that could affect safe operation of the AL/EWP.

Training content is determined by the AL/EWP Safety Program Manager/Trainer based upon observed hazards, type of equipment, Department need, and work requirements. If an operator has previously received training in a topic specified in this program, and such training is appropriate to a new AL/EWP and/or working conditions, additional training in that topic is not required if the operator has been evaluated and found competent to operate the new AL/EWP or in the new working conditions safely.

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Operator Safe-work Procedures

AL / EWP Selection and Site Hazard Evaluation
Prior to conducting work with an AL/EWP, an Operator conducts a "Site Evaluation" and a "Lift Selection Assessment". This assessment is conducted as environmental hazards and job requirements dictate, but is formally completed by every Operator at the beginning of working in a new or unfamiliar location, or when new or unfamiliar hazards are identified. This assessment ensures that the 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. On the reverse side of each lift "Pre-operation Inspection Form" (Attachments 4 – 10) is a written checklist for "Site Evaluation" that may be used to document the Operator's assessment of their work environment. This site evaluation checklist may also be used to assess the Department's general work environment to determine appropriate equipment procurement needs.

Pre-Operation Inspection and Use of Fall Protection
At the beginning of each work shift, or prior to using AL/EWP equipment for a new work assignment, the Operator conducts a documented "Pre-Operational Inspection" of the equipment. This inspection is specific to the type of lift equipment, and includes visual and auditory inspection of all safety and operational components of the equipment. Results of this inspection are documented on inspection checklists.

Some types of AL/EWP equipment require that fall protection must be worn and properly attached to the equipment by the operator of the equipment. The use of Fall Protection equipment is regulated by Cal-OSHA and outlined on the EH&S website's "UCR Fall Protection Program". The use of fall protection gear is always recommended by EH&S, but the requirement or option to wear fall protection is outlined on the Pre-Operation Inspection Checklists listed below based upon equipment type.

Refer to the following program attachments for Pre-Operation Inspection Checklists and Site Evaluation Forms to determine need for fall protection, document inspections and conduct Hazard Evaluation / Equipment Selection for work sites.

Attachment 4	Attachment 5	Attachment 6
		
Articulating Boom Lift	Elevating Work Platform	Extensible Boom Platform

Attachment 7	Attachment 8	Attachment 9

		
Scissor Platform Lift	**Trailer Mounted Aerial Lift**	**Vehicle Mounted Aerial Lift (Bucket Truck)**

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"Equipment Tag Out" for Repair

No AL/EWP equipment is to be used until any deficiency(s) discovered during a Pre-Operation Inspection are corrected. If a hazardous deficiency is discovered during a Pre-Operation Inspection, the Operator alerts their Supervisor of the condition, and "Tags Out" the equipment from being used by controlling all keys for the vehicle, and placing a "Warning Tag" in the area near the controls with the following information:

- Person's name that has "Tagged Out" the vehicle and has the keys in their possession as well as their contact information.
- Date vehicle was "Tagged Out".
- Reason(s) for "Tagging Out" the vehicle 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.)
- Name and contact information for the Department's responsible person for implementation of this program.

No repairs are made on any AL/EWP until the equipment and its components are blocked, tagged, locked out or otherwise made safe for repair work to commence according to application of the UC Riverside Energy Isolation/Lockout Tag-out Program.

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Operating Procedures / Hazard Identification and Controls

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

1. Review work area for hazards, and remove/control them prior to operation.
2. Always conduct an environmental hazard assessment prior to selecting / using AL/EWP equipment.
3. Only use AL/EWP equipment designed to safely work in the work-area conditions observed.
4. Review operating instructions, warnings, and precautions for the types of AL/EWP being operated.
5. Prior to operation at the beginning of the work-shift, inspect and document the equipment's proper function of controls and instrumentation. Do they operate correctly?

6. Inspect engine or motor operation.
7. Inspect steering and maneuvering.
8. Familiarize yourself with visibility.
9. Inspect basket or platform capacity and equipment stability.
10. Complete and document the inspection process using the appropriate inspection form (in "Attachments").
11. Check fuel and/or charging of batteries, and refuel/recharge as needed.
12. Review and understand equipment operating limitations.
13. Review other operating instructions, warnings, or precautions listed in the operator's manual for the types of AL/EWP that you will operate.
14. Alert all persons in the work area of intended work activities and hazards.
15. Always face the direction of travel.
16. Don't travel horizontally with the platform elevated or extended.
17. Don't exceed the basket or platform capacity.
18. Position equipment on a firm level surface and minimize blocks or ramps for leveling the AL/EWP equipment.
19. Always set outriggers prior to use if the AL/EWP is equipped with them.
20. Wear proper safety harnesses and only tie-off to the work platform's fall protection tie-off point. (Refer to "Types of Lifts" and the Inspection Forms in the "Attachments" to determine if safety harnesses are required to be worn.)
21. "Barrier off" the lift swing work-area below the AL/EWP equipment's work zone.
22. Don't climb on guardrails, climb on ladders or stand on other items when working on the platform.
23. Practices good housekeeping when working in and around the platform.
24. Never drop or throw objects to or from the work platform.
25. Always look below platform and confirm it's safe to lower the equipment before lowering the equipment.
26. Never lean the platform on or against structures.
27. Never use the boom to push against something, or try and pull the AL / EWP equipment along in a horizontal direction.

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Training Requirements

All UCR Staff, Faculty and Students

Are trained on the basic requirements of this program with the primary knowledge that they must be trained and licensed to operate an Aerial Lift or Elevating Work Platform prior to doing so on UCR property.

Departments that own Aerial Lifts or Elevating Work Platforms

Are familiar with the Administrative and Personnel Training Procedures of this program, and implement/integrate them into their research/work/business practices.

Department Safety Coordinators and/or "Responsible Person"

Receive detailed training and support from the Aerial Lift/Elevating Work Platform Program Manager at EH&S concerning their roles/responsibilities in implementing/integrating this program into their Department's research/work/business practices.

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Aerial Lift/Elevating Work Platform Operators

Must enroll with EH&S and successfully complete the classroom training, written examination, as well as Hands-On "Field" Training for each model of Aerial Lift or Elevating Work Platform they will be "Licensed" to use.

Contractors using Aerial Lift/Elevating Work Platform on UCR property

Must be aware that they must provide proof of Aerial Lift or Elevating Work Platform training on the type of lift they are about to use issued by their employer; have UC Riverside department permission to operate powered industrial trucks on the UC Riverside premises, and must carry on their person and produce upon request verification in the form of certificate, license or other document from their employer certifying that they have been trained in the safe use of Aerial Lifts or Elevating Work Platforms.

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EH&S – (Aerial Lift/Elevating Work Platform Safety Program Manager)

- Is trained on all aspects of this program's management and requirements.
- Is trained on, and familiar with, all Cal/OSHA codes relevant to this program (see references below).
- Is aware of, and familiar with, all Fed/OSHA training and support materials relevant to this program.

EH&S Trainer / Program Manager

- Is trained on all aspects of this program's management and requirements.
- Is trained on, and familiar with, all Cal/OSHA codes relevant to this program.
- Is trained on, and certified by, a Cal/OSHA 'Train-the-Trainer' Program to conduct Aerial Lift/Elevating Work Platform training.

Is aware of, and familiar with, all Fed/OSHA training and support materials relevant to this program.

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Record Keeping Requirements

Departments that own / use Aerial Lifts or Elevating Work Platforms

All departments that have trained Aerial Lift or Elevating Work Platform operators should keep a current copy of licensure on file (up to three years). For copies of licensure please contact EH&S at 642-3073.

Department Safety Coordinators and/or "Responsible Person"

No record keeping needed, but should verify that all operators have current licensure.

Aerial Lift/Elevating Work Platform Operators

Operators that use Aerial Lifts or Elevating Work Platforms in other departments than their own should at all times have their "Industrial Equipment License" issued by UCR EH&S in their possession.

EH&S – (Aerial Lift / Elevating Work Platform Safety Program Manager)

EH&S maintains a training database and licensure filing system of all UC Riverside Aerial Lift/Elevating Work Platform operators. These records and all past licensure can be accessed by the department, department safety coordinator, supervisor, Cal/OSHA or a Licensed operator by calling EH&S at 642-3073.

EH&S Trainer

The Aerial Lift/Elevating Work Platform Trainer retains all on-line training tests, forms, and sign-in sheets for record keeping purposes. These records will reside in the "Aerial Lift/Elevating Work Platform Safety Program Managers electronic filling system.

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References

The following Title 8 Cal/OSHA codes dictate the requirements of this program:

§1670. Personal Fall Arrest/Restraint Systems	http://www.dir.ca.gov/Title8/1670.html
§3637. Definitions	http://www.dir.ca.gov/Title8/3637.html
§3638. Equipment Instructions and Marking	http://www.dir.ca.gov/Title8/3638.html
§3639. Factors of Safety in Design of Work Platform Assembly	http://www.dir.ca.gov/Title8/3639.html
§3640. Maintenance and Repairs	http://www.dir.ca.gov/Title8/3640.html
§3642. Platform Equipment	http://www.dir.ca.gov/Title8/3642.html
§3645. Stability on Inclined Surfaces	http://www.dir.ca.gov/Title8/3645.html
§3646. Operating Instructions (Elevating Work Platforms)	http://www.dir.ca.gov/Title8/3646.html
§3647. Pin-On Platforms	http://www.dir.ca.gov/Title8/3647.html
§3648. Operating Instructions (Aerial Devices)	http://www.dir.ca.gov/Title8/3648.html
Fall Protection Equipment fact sheet	http://ehs.Riverside.edu/pubs/factsheets/65fallprotequip.pdf

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Issued By and Next Review Date

Issued by: Chidozie B. Nzom, Safety Engineer, UCR EH&S/General Safety
March 27, 2017

Next Review Date: March 27, 2020 or sooner upon changes to code requirements.

Attachments

Attachment 1. Template – Aerial Lift/Elevating Work Platform Department Inventory

Attachment 2. Template – Licensed Operator Roster

Attachment 3. Template – License – Photo Example

Attachment 4. Articulating Boom Pre-Operation Inspection Form

Attachment 5. Elevating Work Platform Pre-Operation Inspection Form

Attachment 6. Lift Pod Pre-Operation Inspection Form

Attachment 7. Extensible Boom Platform Pre-Operation Inspection Form

Attachment 8. Scissor Lift Pre-Operation Inspection Form

Attachment 9. Trailer Mounted Aerial Lift Pre-Operation Inspection Form

Attachment 10. Vehicle Mounted Lift Pre-Operation Inspection Form

Attachment 11. FAQ / Fact Sheet – Aerial Lift / Elevating Work Platform

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Attachment 1 - Lift Equipment Inventory for _____ Department

Instructions: An initial inventory of Industrial Lift Equipment owned/operated by each department must be conducted to identify all equipment impacted by this program. This must be done by physical inspection. At UCR this survey may be conducted by a responsible person in a department, the department's DSC or their designee and documented on this form. Update this inventory list as equipment is purchased or retired from service, and at least annually. Return to Table of Contents

MGFR	Type	Power Source	Nameplate Data	Max. Lift Capacity	Location	PPE/Uses
Example: Genie	Scissor Lift	Electric/AC-DC	Model ZH1 S/N 456JV12X798	Platform 600 lbs.	Oxford Track Garage	Full Body Harness w/Lanyard General Greenhouse/warehouse use, Building maintenance.

DATE: _____ DSC / Responsible Person's NAME: _____ PAGE ____ OF ____

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MGFR	Type	Power Source	Nameplate Data	Max. Lift Capacity	Location	PPE/Uses
Example: Genie	Scissor Lift	Electric/AC-DC	Model ZH1 S/N 456JV12X798	Platform 600 lbs.	Oxford Track Garage	Full Body Harness w/Lanyard General Greenhouse/warehouse use, Building maintenance.

Attachment 2 – Licensed Operators List

Licensed Operator List for _____ Department.

Instructions: An Operator Roster of Industrial Lift Equipment owned/operated by each department is maintained to identify all personnel enrolled in this program. At UCR this roster may be maintained by a responsible person in a department, the department's DSC or their designee and documented on this form, or through enrollment in the University Learning Management System (LMS). Update this roster as equipment is purchased or retired from service, and personnel are added/deleted from using Industrial Lift Equipment within the Department. Return to Table of Contents

Operator Name/ ID Number	**License Number Issue Date**	**Operation Location(s)**	**Equipment**
Example: Juanita Sanchez (Employee # or Student ID)	Horticulture OL - 0234 Issued 5/16/09 – 5/15/12	Oxford Track Garage Oxford Track Build Maintenance	Genie Scissor Lift #GL8462LW, Genie Elevating Work Platform #GL50309TL

DATE: _____ DSC / Responsible Person's NAME: _____ PAGE __ OF __

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Operator Name/ ID Number	License Number Issue Date	Operation Location(s)	Equipment
Example: Juanita Sanchez (Employee # or Student ID)	Horticulture OL - 0234 Issued 5/16/09 – 5/15/12	Oxford Track Garage Oxford Track Build Maintenance	Genie Scissor Lift #GL8462LW, Genie Elevating Work Platform #GL50309TL

Attachment 3 – Photos of an Industrial Equipment License

Example – Photos of an Industrial Equipment License Issued by UC Riverside EH&S

BACK – INCLUDES A LIST OF LICENSED EQUIPMENT AND DATE OF EXPIRATION.

FRONT – INCLUDES OPERATOR NAME AND PROGRAM MANAGER SIGNATURE.

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Attachment 4 - Articulating Boom Lift Pre-Operation Inspection

Lift MFG: _____ Model: _____ Serial Number: _____

Date: _____ Start Time: _____ AM / PM (circle one) WEAR **FALL PROTECTION WHEN USING THIS LIFT**

	Pass	Fail	N/A
KEY OFF Procedures			
Check that the operator's manual, decals are in place and legible, and that the operator has reviewed the manual and is aware of its limitations.			
Check Hydraulic cylinders/Lifting mechanism/Fluid level			
Check welds, pins, missing nuts or bolts and other structural parts for cracks or defects			
Check drive hubs, engine for oil leaks			
Check platform entry mid-rail/gate, and platform or basket housekeeping			
Examine the battery & fire extinguisher			
Check fuel level to assure that the unit can operate the duration of the job			
Operator is responsible for inspecting all fall protection and insure that all fall protection is being worn and attached properly			
Tires/Rollers/Monitor tire air pressure if pneumatic (Front Right ____psi, Front Left ____psi, Right Rear ____psi, Left Rear ____psi)			
KEY ON Procedures			
Check all ground controls for proper operation, including emergency lowering means (remember, these could save your life)			
Check all basket controls, foot switch, horn for proper operation			
Battery discharge indicator, Hour meter			
Steering and drive system			
Check limit switches, alarms, and flashing beacon if equipped (operating the lift by raising/swing/extending booms, tilt/rotate the basket)			

Starting Hour Meter Reading: _____Hours	Operator's Name: (Printed / Signature) _____ / _____	Operator's Employee ID:_____

Instructions: Operator must check off each item as having been checked "OK" and safe to use during daily inspection prior to operation. See the reverse side of this page and complete the Work Site Evaluation for every new location.

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Aerial Lift Site/Operation Hazard Assessment for _____ Department
Location(s): _____
Type of Work to be conducted: _____

Instructions: An Operator must conduct a **Site Hazard Assessment** for Industrial Lift Equipment owned/operated by each department to identify all hazards in the area of intended work, and to select appropriate equipment for the work-task. Unlike other Industrial Equipment, each time an Aerial Lift or Elevating Work Platform unit is used the site must be reassessed and documented on this form.

Site Evaluation	YES	NO	N/A
Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
Are surface conditions where the lift is used free of obstructions and on level surface?			
Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
Are there overhead obstructions or restricted places where the lift will be operated?			
Will the basket handle the loads to be carried without exceeding the rated capacity?			
Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
Will the lift be used for electrical work or near high voltage lines?			
Are there “Classified Hazardous” locations where the vehicle will be operated?			
Is there an enclosed environment(s) or other areas where insufficient ventilation or poor vehicle maintenance could cause a build-up of carbon monoxide or diesel exhaust buildup for combustion motors, or hydrogen gas buildup at electric vehicle recharging stations?			
Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer’s rated design allowance?			
List below other potentially hazardous site-conditions that could affect safe operation:			
Process/Use of Lift Truck	**YES**	**NO**	**N/A**
Has the proper Lift been chosen for the type of work being conducted?			
Does the Lift have the proper lift height and capacity for the job?			
Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
Is the basket free of trip hazards and proper housekeeping maintained?			
Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian-aisles, doorways, footpaths, or electrical panels.)			
Is the fueling and/or charging area well ventilated?			
Is there proper lighting in the areas the Lift is being used?			
Are Propane bottles being kept in a secure area, and are they tagged “Full” or “Empty”?			
List below other potentially hazardous process-conditions that could affect safe operation:			

Operator/Evaluator: _____ Date evaluated: ___/___/_____

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Attachment 5 - Elevating Work Platform Pre-Operation Inspection

Lift MFG: _____ Model: _____ Serial Number: _____

Date: _____ Start Time: _____ AM / PM (circle one)

WEARING FALL PROTECTION IS OPTIONAL BUT RECOMMENDED

	Pass	Fail	N/A
KEY OFF Procedures			
Check that the operator's manual, decals are in place and legible, and that the operator has reviewed the manual and is aware of its limitations.			
Check Hydraulic cylinders/Lifting mechanism/Fluid level			
Check welds, pins, missing nuts or bolts and other structural parts for cracks or defects			
Check outriggers, outrigger limiting switches, and locking pins			
Check platform entry mid-rail/gate, and platform or basket housekeeping			
Examine the battery & fire extinguisher			
Check battery level to assure that the unit can operate the duration of the job			
Operator is responsible for inspecting all fall protection and insure that all fall protection is being worn and attached properly			
Tires/Rollers/Monitor tire air pressure if pneumatic (Front Right ____psi, Front Left ____psi, Right Rear ____psi, Left Rear ____psi)			
KEY ON Procedures			
Check all ground controls for proper operation, including emergency lowering means (remember, these could save your life)			
Check all basket controls, foot switch, horn for proper operation			
Battery discharge indicator, Hour meter			
Steering and drive system			
Check limit switches, alarms, and flashing beacon if equipped (operating the lift by raising/swing/extending booms, tilt/rotate the basket)			

Starting Hour Meter Reading: _____Hours	Operator's Name: (Printed / Signature) _____ / _____	Operator's Employee ID:_____

Instructions: Operator must check off each item as having been checked "OK" and safe to use during daily inspection prior to operation. See the reverse side of this page and complete the Work Site Evaluation for every new location.

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Aerial Lift Site/Operation Hazard Assessment for _____ Department
Location(s): _____
Type of Work to be conducted: _____

Instructions: An Operator must conduct a **Site Hazard Assessment** for Industrial Lift Equipment owned/operated by each department to identify all hazards in the area of intended work, and to select appropriate equipment for the work-task. Unlike other Industrial Equipment, each time an Aerial Lift or Elevating Work Platform unit is used the site must be reassessed and documented on this form.

Site Evaluation	YES	NO	N/A
Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
Are surface conditions where the lift is used free of obstructions and on level surface?			
Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
Are there overhead obstructions or restricted places where the lift will be operated?			
Will the basket handle the loads to be carried without exceeding the rated capacity?			
Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
Will the lift be used for electrical work or near high voltage lines?			
Are there "Classified Hazardous" locations where the vehicle will be operated?			
Is there an enclosed environment(s) or other areas where insufficient ventilation or poor vehicle maintenance could cause a build-up of carbon monoxide or diesel exhaust buildup for combustion motors, or hydrogen gas buildup at electric vehicle recharging stations?			
Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer's rated design allowance?			
List below other potentially hazardous site-conditions that could affect safe operation:			
Process/Use of Lift Truck	**YES**	**NO**	**N/A**
Has the proper Lift been chosen for the type of work being conducted?			
Does the Lift have the proper lift height and capacity for the job?			
Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
Is the basket free of trip hazards and proper housekeeping maintained?			
Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian-aisles, doorways, footpaths, or electrical panels.)			
Is the fueling and/or charging area well ventilated?			
Is there proper lighting in the areas the Lift is being used?			
Are Propane bottles being kept in a secure area, and are they tagged "Full" or "Empty"?			
List below other potentially hazardous process-conditions that could affect safe operation:			

Operator/Evaluator: _____ Date evaluated: ___/___/_____

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Attachment 6 – Lift Pod Pre-Operation Inspection

Lift MFG: _____ Model: _____ Serial Number: _____

Date: _____ Start Time: _____ AM / PM (circle one)

WEARING FALL PROTECTION IS OPTIONAL BUT RECOMMENDED

	Pass	Fail	N/A
KEY OFF Procedures			
Check that the operator's manual, decals are in place and legible, and that the operator has reviewed the manual and is aware of its limitations.			
Check Hydraulic cylinders/Lifting mechanism/Fluid level			
Check welds, pins, missing nuts or bolts and other structural parts for cracks or defects			
Check outriggers, outrigger limiting switches, and locking pins			
Check platform entry mid-rail/gate, and platform or basket housekeeping			
Examine the battery & fire extinguisher			
Check battery level to assure that the unit can operate the duration of the job			
Operator is responsible for inspecting all fall protection and insure that all fall protection is being worn and attached properly			
Tires/Rollers/Monitor tire air pressure if pneumatic (Front Right ____psi, Front Left ____psi, Right Rear ____psi, Left Rear ____psi)			
KEY ON Procedures			
Check all ground controls for proper operation, including emergency lowering means (remember, these could save your life)			
Check all basket controls, foot switch, horn for proper operation			
Battery discharge indicator, Hour meter			
Steering and drive system			
Check limit switches, alarms, and flashing beacon if equipped (operating the lift by raising/swing/extending booms, tilt/rotate the basket)			

Starting Hour Meter Reading: _____Hours	Operator's Name: (Printed / Signature) _____ / _____	Operator's Employee ID:_____

Instructions: Operator must check off each item as having been checked "OK" and safe to use during daily inspection prior to operation. See the reverse side of this page and complete the Work Site Evaluation for every new location.

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Aerial Lift Site/Operation Hazard Assessment for _____ Department
Location(s): _____
Type of Work to be conducted: _____

Instructions: An Operator must conduct a **Site Hazard Assessment** for Industrial Lift Equipment owned/operated by each department to identify all hazards in the area of intended work, and to select appropriate equipment for the work-task. Unlike other Industrial Equipment, each time an Aerial Lift or Elevating Work Platform unit is used the site must be reassessed and documented on this form.

Site Evaluation	YES	NO	N/A
Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
Are surface conditions where the lift is used free of obstructions and on level surface?			
Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
Are there overhead obstructions or restricted places where the lift will be operated?			
Will the basket handle the loads to be carried without exceeding the rated capacity?			
Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
Will the lift be used for electrical work or near high voltage lines?			
Are there "Classified Hazardous" locations where the vehicle will be operated?			
Is there an enclosed environment(s) or other areas where insufficient ventilation or poor vehicle maintenance could cause a build-up of carbon monoxide or diesel exhaust buildup for combustion motors, or hydrogen gas buildup at electric vehicle recharging stations?			
Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer's rated design allowance?			
List below other potentially hazardous site-conditions that could affect safe operation:			
Process/Use of Lift Truck	**YES**	**NO**	**N/A**
Has the proper Lift been chosen for the type of work being conducted?			
Does the Lift have the proper lift height and capacity for the job?			
Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
Is the basket free of trip hazards and proper housekeeping maintained?			
Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian-aisles, doorways, footpaths, or electrical panels.)			
Is the fueling and/or charging area well ventilated?			
Is there proper lighting in the areas the Lift is being used?			
Are Propane bottles being kept in a secure area, and are they tagged "Full" or "Empty"?			
List below other potentially hazardous process-conditions that could affect safe operation:			

Operator/Evaluator: _____ Date evaluated: ___/___/_____

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Attachment 7 - Extensible Boom Platform Pre-Operation Inspection

Lift MFG: _____ Model: _____ Serial Number: _____

Date: _____ Start Time: _____ AM / PM (circle one) WEAR **FALL PROTECTION WHEN USING THIS LIFT**

	Pass	Fail	N/A
KEY OFF Procedures			
Check that the operator's manual, decals are in place and legible, and the operator has reviewed the manual and is aware of its limitations			
Check Hydraulic cylinders/Lifting mechanism/Fluid level			
Check welds, pins, missing nuts or bolts and other structural parts for cracks or defects			
Check drive hubs, engine for oil leaks			
Check platform entry mid-rail/gate, and platform or basket housekeeping			
Examine the battery & fire extinguisher			
Check fuel level to assure that the unit can operate the duration of the job			
Operator is responsible for inspecting all fall protection and insure that all fall protection is being worn and attached properly			
Tires/Rollers/Monitor tire air pressure if pneumatic (Front Right ____psi, Front Left ___psi, Right Rear ____psi, Left Rear ___psi)			
KEY ON Procedures			
Check all ground controls for proper operation, including emergency lowering means (remember, these could save your life)			
Check all basket controls, foot switch, horn for proper operation			
Battery discharge indicator, Hour meter			
Steering and drive system			
Check limit switches, alarms, and flashing beacon if equipped (operating the lift by raising/swing/extending booms, tilt/rotate the basket)			
Check outriggers for proper operation if equipped			

Starting Hour Meter Reading: _____Hours	Operator's Name: (Printed / Signature) _____ / _____	Operator's Employee ID:_____

Instructions: Operator must check off each item as having been checked "OK" and safe to use during daily inspection prior to operation. See the reverse side of this page and complete the Work Site Evaluation for every new location.

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Aerial Lift Site/Operation Hazard Assessment for _____ Department
Location(s): _____
Type of Work to be conducted: _____

Instructions: An Operator must conduct a **Site Hazard Assessment** for Industrial Lift Equipment owned/operated by each department to identify all hazards in the area of intended work, and to select appropriate equipment for the work-task. Unlike other Industrial Equipment, each time an Aerial Lift or Elevating Work Platform unit is used the site must be reassessed and documented on this form.

Site Evaluation	YES	NO	N/A
Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
Are surface conditions where the lift is used free of obstructions and on level surface?			
Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
Are there overhead obstructions or restricted places where the lift will be operated?			
Will the basket handle the loads to be carried without exceeding the rated capacity?			
Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
Will the lift be used for electrical work or near high voltage lines?			
Are there “Classified Hazardous” locations where the vehicle will be operated?			
Is there an enclosed environment(s) or other areas where insufficient ventilation or poor vehicle maintenance could cause a build-up of carbon monoxide or diesel exhaust buildup for combustion motors, or hydrogen gas buildup at electric vehicle recharging stations?			
Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer’s rated design allowance?			
List below other potentially hazardous site-conditions that could affect safe operation:			
Process/Use of Lift Truck	**YES**	**NO**	**N/A**
Has the proper Lift been chosen for the type of work being conducted?			
Does the Lift have the proper lift height and capacity for the job?			
Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
Is the basket free of trip hazards and proper housekeeping maintained?			
Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian-aisles, doorways, footpaths, or electrical panels.)			
Is the fueling and/or charging area well ventilated?			
Is there proper lighting in the areas the Lift is being used?			
Are Propane bottles being kept in a secure area, and are they tagged “Full” or “Empty”?			
List below other potentially hazardous process-conditions that could affect safe operation:			

Operator/Evaluator: _____ Date evaluated: ___/___/_____

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Attachment 8 - Scissors Platform Lift Pre-operation Inspection

Lift MFG: _____ Model:_____ Serial Number :_____

Date:_____ Start Time: _____ AM / PM (circle one) **WEARING FALL PROTECTION IS OPTIONAL BUT RECOMMENDED**

	Pass	Fail	N/A
KEY OFF Procedures			
Check that the operator's manual, decals are in place and legible, and the operator has reviewed the manual and is aware of its limitations			
Check Hydraulic cylinders/Lifting mechanism/Fluid level			
Check welds, pins, missing nuts or bolts and other structural parts for cracks or defects			
Check outriggers, outrigger limiting switches, and locking pins			
Check platform entry mid-rail/gate, and platform or basket housekeeping			
Examine the battery & fire extinguisher			
Check battery level to assure that the unit can operate the duration of the job			
Operator is responsible for inspecting all fall protection and insure that all fall protection is being worn and attached properly			
Tires/Rollers/Monitor tire air pressure if pneumatic (Front Right ____psi, Front Left ____psi, Right Rear ____psi, Left Rear ___psi)			
KEY ON Procedures			
Check all ground controls for proper operation, including emergency lowering means (remember, these could save your life)			
Check all basket controls, foot switch, horn for proper operation			
Battery discharge indicator, Hour meter			
Steering and drive system			
Check limit switches, alarms, and flashing beacon if equipped (operating the lift by raising/swing/extending booms, tilt/rotate the basket)			

Starting Hour Meter Reading: _____Hours	Operator's Name: (Printed / Signature) _____ / _____	Operator's Employee ID:_____

Instructions: Operator must check off each item as having been checked "OK" and safe to use during daily inspection prior to operation. See the reverse side of this page and complete the Work Site Evaluation for every new location.

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Aerial Lift Site/Operation Hazard Assessment for _____ Department
Location(s): _____
Type of Work to be conducted: _____

Instructions: An Operator must conduct a **Site Hazard Assessment** for Industrial Lift Equipment owned/operated by each department to identify all hazards in the area of intended work, and to select appropriate equipment for the work-task. Unlike other Industrial Equipment, each time an Aerial Lift or Elevating Work Platform unit is used the site must be reassessed and documented on this form.

Site Evaluation	YES	NO	N/A
Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
Are surface conditions where the lift is used free of obstructions and on level surface?			
Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
Are there overhead obstructions or restricted places where the lift will be operated?			
Will the basket handle the loads to be carried without exceeding the rated capacity?			
Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
Will the lift be used for electrical work or near high voltage lines?			
Are there “Classified Hazardous” locations where the vehicle will be operated?			
Is there an enclosed environment(s) or other areas where insufficient ventilation or poor vehicle maintenance could cause a build-up of carbon monoxide or diesel exhaust buildup for combustion motors, or hydrogen gas buildup at electric vehicle recharging stations?			
Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer’s rated design allowance?			
List below other potentially hazardous site-conditions that could affect safe operation:			
Process/Use of Lift Truck	**YES**	**NO**	**N/A**
Has the proper Lift been chosen for the type of work being conducted?			
Does the Lift have the proper lift height and capacity for the job?			
Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
Is the basket free of trip hazards and proper housekeeping maintained?			
Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian-aisles, doorways, footpaths, or electrical panels.)			
Is the fueling and/or charging area well ventilated?			
Is there proper lighting in the areas the Lift is being used?			
Are Propane bottles being kept in a secure area, and are they tagged “Full” or “Empty”?			
List below other potentially hazardous process-conditions that could affect safe operation:			

Operator/Evaluator: _____ Date evaluated: ___/___/_____

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Attachment 9 - Trailer Mounted Aerial Lift Pre-Operation Inspection

Lift MFG: _____ Model: _____ Serial Number: _____

Date: _____ Start Time: _____ AM / PM (circle one) WEAR **FALL PROTECTION WHEN USING THIS LIFT**

	Pass	Fail	N/A
KEY OFF Procedures			
Check that the operator's manual, decals are in place and legible, and the operator has reviewed the manual and is aware of its limitations			
Check Hydraulic cylinders/Lifting mechanism/Fluid level			
Check welds, pins, missing nuts or bolts and other structural parts for cracks or defects			
Check outriggers, outrigger limiting switches, and locking pins			
Check platform entry mid-rail/gate, and platform or basket housekeeping			
Examine the battery & fire extinguisher			
Check battery level to assure that the unit can operate the duration of the job			
Operator is responsible for inspecting all fall protection and insure that all fall protection is being worn and attached properly			
Tires/Rollers/Monitor tire air pressure if pneumatic (Front Right ____psi, Front Left ___psi, Right Rear ___psi, Left Rear ____psi)			
Check trailer lights, reflectors, parking brake, axle components, surge brake, safety chains			
KEY ON Procedures			
Check all ground controls for proper operation, including emergency lowering means (remember, these could save your life)			
Check all basket controls, foot switch, horn for proper operation			
Battery discharge indicator, Hour meter			
Steering and drive system			
Check limit switches, alarms, and flashing beacon if equipped (operating the lift by raising/swing/extending booms, tilt/rotate the basket)			
Check outriggers, leveling jacks and foot pads			

Starting Hour Meter Reading: _____Hours	Operator's Name: (Printed / Signature) _____ / _____	Operator's Employee ID:_____

Instructions: Operator must check off each item as having been checked "OK" and safe to use during daily inspection prior to operation. See the reverse side of this page and complete the Work Site Evaluation for every new location.

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Aerial Lift Site/Operation Hazard Assessment for _____ Department
Location(s): _____
Type of Work to be conducted: _____

Instructions: An Operator must conduct a **Site Hazard Assessment** for Industrial Lift Equipment owned/operated by each department to identify all hazards in the area of intended work, and to select appropriate equipment for the work-task. Unlike other Industrial Equipment, each time an Aerial Lift or Elevating Work Platform unit is used the site must be reassessed and documented on this form.

Site Evaluation	YES	NO	N/A
Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
Are surface conditions where the lift is used free of obstructions and on level surface?			
Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
Are there overhead obstructions or restricted places where the lift will be operated?			
Will the basket handle the loads to be carried without exceeding the rated capacity?			
Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
Will the lift be used for electrical work or near high voltage lines?			
Are there “Classified Hazardous” locations where the vehicle will be operated?			
Is there an enclosed environment(s) or other areas where insufficient ventilation or poor vehicle maintenance could cause a build-up of carbon monoxide or diesel exhaust buildup for combustion motors, or hydrogen gas buildup at electric vehicle recharging stations?			
Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer’s rated design allowance?			
List below other potentially hazardous site-conditions that could affect safe operation:			
Process/Use of Lift Truck	**YES**	**NO**	**N/A**
Has the proper Lift been chosen for the type of work being conducted?			
Does the Lift have the proper lift height and capacity for the job?			
Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
Is the basket free of trip hazards and proper housekeeping maintained?			
Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian-aisles, doorways, footpaths, or electrical panels.)			
Is the fueling and/or charging area well ventilated?			
Is there proper lighting in the areas the Lift is being used?			
Are Propane bottles being kept in a secure area, and are they tagged “Full” or “Empty”?			
List below other potentially hazardous process-conditions that could affect safe operation:			

Operator/Evaluator: _____ Date evaluated: ___/___/_____

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Attachment 10 - Vehicle Mounted Lift Pre-Operation Inspection

Lift MFG: _____ Model: _____ Serial Number: _____

Date: _____ Start Time: _____ AM / PM (circle one) WEAR **FALL PROTECTION WHEN USING THIS LIFT**

	Pass	Fail	N/A
KEY OFF Procedures			
Check that the operator's manual, decals are in place and legible, and the operator has reviewed the manual and is aware of its limitations			
Check Hydraulic cylinders/Lifting mechanism/Fluid level			
Check welds, pins, missing nuts or bolts and other structural parts for cracks or defects			
Check outriggers, outrigger limiting switches, and locking pins			
Check platform entry mid-rail/gate, and bucket or basket housekeeping			
Examine the battery & fire extinguisher			
Check battery level to assure that the unit can operate the duration of the job			
Operator is responsible for inspecting all fall protection and insure that all fall protection is being worn and attached properly			
Monitor tire air pressure (Front Right ____psi, Front Left ____psi, Right Rear ____psi, Left Rear ____psi)			
Check lights, reflectors, parking brake			
KEY ON Procedures			
Check all ground controls for proper operation, including emergency lowering means (remember, these could save your life)			
Check all basket controls, foot switch, horn for proper operation			
Battery discharge indicator, Hour meter			
Check limit switches, alarms, and flashing beacon if equipped (operating the lift by raising/swing/extending booms, tilt/rotate the basket)			
Check outriggers, leveling jacks and foot pads			

Starting Hour Meter Reading: _____Hours	Operator's Name: (Printed / Signature) _____ / _____	Operator's Employee ID:_____

Instructions: Operator must check off each item as having been checked "OK" and safe to use during daily inspection prior to operation. See the reverse side of this page and complete the Work Site Evaluation for every new location.

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Aerial Lift Site/Operation Hazard Assessment for _____ Department
Location(s): _____
Type of Work to be conducted: _____

Instructions: An Operator must conduct a **Site Hazard Assessment** for Industrial Lift Equipment owned/operated by each department to identify all hazards in the area of intended work, and to select appropriate equipment for the work-task. Unlike other Industrial Equipment, each time an Aerial Lift or Elevating Work Platform unit is used the site must be reassessed and documented on this form.

Site Evaluation	YES	NO	N/A
Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
Are surface conditions where the lift is used free of obstructions and on level surface?			
Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
Are there overhead obstructions or restricted places where the lift will be operated?			
Will the basket handle the loads to be carried without exceeding the rated capacity?			
Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
Will the lift be used for electrical work or near high voltage lines?			
Are there "Classified Hazardous" locations where the vehicle will be operated?			
Is there an enclosed environment(s) or other areas where insufficient ventilation or poor vehicle maintenance could cause a build-up of carbon monoxide or diesel exhaust buildup for combustion motors, or hydrogen gas buildup at electric vehicle recharging stations?			
Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer's rated design allowance?			
List below other potentially hazardous site-conditions that could affect safe operation:			
Process/Use of Lift Truck	**YES**	**NO**	**N/A**
Has the proper Lift been chosen for the type of work being conducted?			
Does the Lift have the proper lift height and capacity for the job?			
Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
Is the basket free of trip hazards and proper housekeeping maintained?			
Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian-aisles, doorways, footpaths, or electrical panels.)			
Is the fueling and/or charging area well ventilated?			
Is there proper lighting in the areas the Lift is being used?			
Are Propane bottles being kept in a secure area, and are they tagged "Full" or "Empty"?			
List below other potentially hazardous process-conditions that could affect safe operation:			

Operator/Evaluator: _____ Date evaluated: ___/___/_____

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Attachment 11 - FAQ / Fact Sheet – Aerial Lift / Elevating Work Platform Safety Program

EH&S FACT SHEET Aerial Lift / Elevated Work Platform Safety

[Click on any question in the FAQ / Fact Sheet "Table of Contents" to be taken to the answer.]

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FAQ / Fact Sheet Table of Contents

What is Aerial Lift / Elevated Work Platform (AL / EWP) Equipment?

Aerial Lift / Elevated Work Platform (AL/EWP) equipment is used to raise people from ground/floor level to conduct work aloft. They may be used indoors or outdoors and for any purpose when a person needs to work at an elevated location. There are many different kinds of AL/EWP equipment and are selected and used based upon work need and site conditions. Some are self-propelled, some are mounted on truck beds, some are towed behind a vehicle on a trailer, etc…. Power sources for the equipment include plug-in electric, on-board rechargeable battery packs, propane, gasoline, dual-

power units, etc…. Common kinds of AL/EWP equipment include 'Bucket Trucks', Boom Trucks, Scissors Lifts, Extensible Boom Lifts, Articulating Arm Lifts, etc…

When is implementation of the AL / EWP program required, and by whom?

Departments that own, lease, rent or otherwise operate Aerial Lifts / Elevating Work Platforms (AL/EWP) must implement this program into their business / research operations to comply with Cal-OSHA and other regulatory requirements. The following actions assure complete implementation:

1. Train and license personnel who operate their equipment,
2. Conduct pre-operation safety inspections and preventive maintenance of the equipment,
3. Assure equipment operators adhere to specific safe-work practices whenever using these types of powered industrial equipment, and
4. Approve use of AL/EWP equipment by Contractors / Vendors hired by the Department.

Contractors we hire use AL/EWP equipment. What do we have to do?

Departments hiring contractors are NOT responsible to assure the contractor's compliance with the UC Riverside AL/EWP Program. However, Contractor or Vendor employees that have been trained under their company's Aerial Lift/Elevating Work Platform Safety program, and have a UC Riverside Department's permission, may operate AL/EWP equipment owned/leased/rented by their employer on UC Riverside premises. Contractors who use AL/EWP equipment that is owned and/or rented/leased by a UC Riverside Department must demonstrate to the Department's DSC or Responsible Person their current licensure for operation of the specific type of AL/EWP equipment before they are allowed to operate the UC Riverside owned / leased / rented equipment. Whether the operator is a vendor or contractor, they may be required to show verification that they have been trained and licensed on the specific AL/EWP equipment being operated by any UC Riverside Department representative. If contractor / vendor employees are found to be unlicensed, all work using the AL/EWP equipment must stop immediately until properly licensed personnel are present to operate the equipment.

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If I want to purchase or lease AL / EWP equipment, what do I have to do?

Department Management is responsible for selecting, purchasing/leasing, owning and maintaining the AL/EWP equipment and must designate the person(s) responsible for implementing the following program requirements:

- Identify / Evaluate AL/EWP Equipment Requirements and Site Hazards
- Inventory and Inspect Department AL/EWP Equipment using program documentation
- Identify Department Personnel Requiring AL/EWP Equipment Training
- Assure Training/Qualification/Retraining and Licensure of selected Department Personnel
- Assure Department Operators are following AL/EWP Program Operator Procedures
- Maintain Records of program implementation and training / licensure.

Who may use AL / EWP equipment and what training and licensure is required?

Each Operator must successfully complete Operator Safety Training prior to operating AL/EWP equipment on UCR property. Training is provided by EH&S. Depending upon the type of AL/EWP equipment used, Fall Protection gear may need to be worn by the operator. Additional "Fall Protection Training" may be required if this type of gear must be worn.

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Who should be trained and licensed to operate AL / EWP equipment?

Anyone in the owner Department who has the work-need to operate a piece of AL/EWP equipment must be trained and licensed prior to allowing them to operate the Department's AL/EWP equipment.

Can I operate any type of AL / EWP equipment once I've been trained and licensed?

No. Operators may only use the AL/EWP equipment type they have been trained and licensed to operate. Different types of AL/EWP equipment require a separate training and license to operate. AL/EWP equipment may be operated by unlicensed operators only when under the direct supervision of persons who have the knowledge, training and experience to train operators and evaluate their competence "in the field".

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What's involved in training and licensing personnel using AL / EWP equipment?

Training is "two-part" and consists of a combination of written, classroom and/or interactive computer learning, followed by hands-on "field" training and documented testing that's specific to the AL / EWP equipment. Both sections of training are documented to record successful completion of that portion of the training. Once training is successfully completed, a license to operate the specific AL / EWP equipment is issued and must be carried by the operator when using the equipment. Licensure is good for duration of employment at UCR or until work conditions, the equipment or other factors change warranting retraining. Operators must attend and successfully complete a 'retraining' when specific conditions or unsafe work behaviors are observed as outlined in the program.

I've hired a contractor who needs to use UC Riverside rented/leased/owned AL / EWP. What kind of training / licensure does the Contractor need?

Contractors who are hired by the Department and who must use UC Riverside rented/leased/owned AL/EWP must be trained / licensed under the UC Riverside training / licensing program and issued a UC Riverside Operator License before they can operate the equipment rented/leased/owned by UC Riverside. Departments that find they must put a Contractor through this training / licensure process are required to alert EH&S of the need for the Contractor's training / licensure and arrange for this training / licensure to occur prior to allowing the Contractor to use the Department's equipment.

What are the safe-work procedures for using AL / EWP equipment?

Safe work procedures for the use of any type of AL / EWP equipment are detailed in the program and associated training content, and include the following:

- Assessment of AL / EWP equipment selection and a documented "Site Hazard Evaluation",
- Documented Pre-Operation Equipment Inspection with determination if fall protection PPE and other gear must be worn during work aloft,
- Implementing an "Equipment Tag Out" notification procedure for repair when deficiencies in the equipment are discovered,
- Following specific operating procedures, hazard identification and controls when operating AL/EWP equipment.

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Does a pre-operation inspection need to be documented for each work-shift?

Yes. It's required by law and makes good sense as equipment and site conditions can change, and unrecognized hazards develop, without the operator's knowledge unless a pre-operation inspection is completed. This inspection assures the operator that the equipment they are about to use is safe to

take them aloft, and alerts them to hazards in the work area. The documentation associated with the inspection assures that a systematic approach to hazard recognition is taken, and that Departments are complying with legal requirements.

Are there checklists that can be used to document pre-operation inspections?

Yes. Attachments 4 – 10 of the AL/EWP Safety Program are customized by equipment type and used as Pre-Operation Checklists by Operators when conducting their equipment inspections and site hazard evaluation.

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What do I do if I find an equipment deficiency or newly recognized hazard?

This depends upon the nature of the hazard or the deficiency. If the equipment deficiency can be corrected by the operator without causing them or the work site harm (for example, refueling the lift prior to use), then the operator corrects the deficiency and proceeds to use the equipment. If the deficiency cannot be repaired by the operator, then the operator follows an "Equipment Tag Out" procedure to alert others of the deficient condition, alerts their Supervisor of the deficient condition to arrange for repair, and does not use the equipment until the condition has been corrected.

If a hazard in the work-site is identified (for example, soft ground due to a recent rain storm), then the operator must conduct an assessment of the hazard, implement control measures (for example, install steel support plates on the ground), determine if the AL/EWP equipment is appropriate to use at the work-site, or if a different type of AL/EWP equipment or other work-method is needed.

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What kinds of records should my Department keep to demonstrate program compliance?

Recordkeeping requirements are detailed under that section of the AL/EWP program, and include an inventory of Department owned equipment, a list of currently-licensed AL/EWP Operators employed by the Department, inspection records, rental / lease / purchase agreements, etc.…

What regulations govern the requirements of this program?

Regulations that govern the need for and requirements of the AL/EWP Safety Program include Cal-OSHA, US-DOT and other regulations. A list of these regulations with links to their specific content is included in the References Section of the AL/EWP Program.

How do I get help with implementing this program in my Department?

Contact EH&S at 642-3073 for questions and help on implementing this program in your Department.

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