





Aerial Lift & Elevated Work Safety Program

INJURY ILLNESS PREVENTION PROGRAM



This sheet should be completed each time the Aerial Lift & Elevated Work Safety Program is reviewed and/or modified. The Director of Safety and Risk Management is responsible for the review and update this document annually or more frequently as determined or needed per CSU Chancellor's Executive Order 1039 Occupational Health and Safety Policy, 1069 Risk Management as well as Cal Maritime A&F Policy 09-004 IIPP.

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1.0 Purpose & Scope

The purpose of the Injury Illness Prevention Program (IIPP) is to outline Cal Maritime's environmental health and safety requirements, expectations, and responsibilities in order to achieve effective campus safety performance through Integrated Safety Management (ISM). The *Aerial Lift & Elevated Work Safety Program* is a subject specific component that supports the overall University IIPP.

This Manual applies to all Cal Maritime operations, maintenance and construction activities under the supervision of Cal Maritime personnel. For activities associated with the Training Ship Golden Bear (TSGB) refer to the Vessel Operating Manual (VOM) and/or Shoreside Administrative Manual (SAM). The TSGB is a subject specific component that supports the overall University IIPP.

1.1 Regulatory Standards Reference

Cal Maritime and its subcontractors shall comply with the following requirements.

In case of conflict or overlap of the below references, the most stringent provision shall apply.

- Occupational Safety and Health Act (OSHA), 1904, 1910, 1915,1917,1918,1926
- California Code of Regulations (CCR), Title 8, GISO, CSO, ESO
- §1670. Personal Fall Arrest/Restraint Systems
- §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)

http://www.dir.ca.gov/Title8/1670.html http://www.dir.ca.gov/Title8/3637.html http://www.dir.ca.gov/Title8/3638.html http://www.dir.ca.gov/Title8/3649.html http://www.dir.ca.gov/Title8/3640.html http://www.dir.ca.gov/Title8/3642.html http://www.dir.ca.gov/Title8/3645.html http://www.dir.ca.gov/Title8/3646.html http://www.dir.ca.gov/Title8/3647.html http://www.dir.ca.gov/Title8/3648.html

1.2 CSU-System & Cal Maritime Specific Reference

For additional information on Cal Maritime environmental health and safety policies, refer to:

- CSU Executive Order 1039, 1056, 1069
- Cal Maritime Policy AF 09-001, AF 09-003, AF 09-004

1.3 Other Resources

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2.0 Administrative Duties & Responsibilities

It is the policy of the Cal Maritime to maintain a safe and healthy work environment for each employee (including student and contract employees), and to comply with all applicable occupational health and safety regulations. This Injury and Illness Prevention Program (IIPP) is intended to establish a framework for identifying and correcting workplace hazards within the department, while addressing legal requirements for a formal, written IIPP.

To assist Cal Maritime in providing a safe, compliant, environmentally sound, and more sustainable operation, each department or operational unit is expected to review, understand, and follow the guidance provided in the Injury Illness Prevention Program components and the and the function of the integrated campus safety management system (ICSMS) as related to operations under their control.

In a proactive behavior based environmental health and safety model that entire campus community participation reflects a process that embraces the ability to;

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- Eliminate adverse conditions which may result in injury or illness,
- Recommend the establishment of programs to raise safety consciousness in the community, and
- Achieve and maintain a beneficial relationship through continuing communication on issues relating to environmental health and occupational safety.

2.1 Employees (Including Student workers)

It is the responsibility of all faculty and staff to proactively participate and subsequently comply with all applicable health and safety regulations, Cal Maritime policies, and established safe work practices. This includes, but is not limited to:

- Observing health and safety-related signs, posters, warning signals and directions.
- Learning about the potential hazards of assigned tasks and work areas.
- Taking part in appropriate health and safety training.
- Following all safe operating procedures and precautions.
- Participating in workplace safety inspections
- Using proper personal protective equipment.
- Inform coworkers and supervisors of defective equipment and other workplace hazards without fear of reprisal.
- Reviewing the building emergency plan and assembly area.
- Reporting unsafe conditions immediately to a supervisor, and stopping work if an imminent hazard is presented.

2.2 Department of Safety and Risk Management (SRM)

The Director of Safety and Risk Management (SRM), as delegated by the University President, is responsible for the implementation and administrative management for Cal Maritime's Injury Illness Prevention Program (IIPP) that meets the requirements of California Code of Regulations (CCR), Title 8, section 3203) as well as other applicable California and Federal Occupational Safety and Health (Cal-OSHA) requirements. This Program represents a best management safe work practice or regulatory specific component of the IIPP.

Further responsibilities are outlined below:

- Provide advice and guidance to all university personnel concerning IIPP compliance requirements;
- Provide centralized monitoring of campus activities related to implementation of campus IIPP;
- Ensure scheduled periodic safety inspections are performed in compliance with regulatory requirements and assist management staff in identifying unsafe or unhealthful conditions;
- Ensure safety and health training programs comply with regulatory requirements and university policy;
- Oversee the maintenance of safety and health records consistent with the requirements of this document and regulatory mandates;
- Ensure program audits, both scheduled and as required by a process, equipment or personnel change, or by a safety program mandate, are performed;
- Interpret existing or pending safety and health legislation and recommend appropriate compliance strategies to university personnel;
- Maintain centralized environmental and employee monitoring records, allowing employee access as directed by law.

2.3 Deans, Directors, Department or Operating Unit Management (DM)

Campus Department or Operating Unit Head Management (DM) have an integral campus role and shall have a thorough understanding of Injury Illness Prevention Program components and the function of the integrated campus safety management system (ICSMS) as related to operations under their control.

• The DM have primary authority and responsibility to ensure the health and safety of the department's faculty, staff and students through the implementation of the Injury Illness Prevention Program components. This is accomplished through a collaborative approach with SRM by communicating Cal Maritime's campus emphasis on health and safety, analyzing work procedures for hazard identification and correction, ensuring regular workplace inspections, providing health and safety training, and encouraging prompt employee reporting of health and safety concerns without fear of reprisal.



- The "Owner Department" is responsible to identify hazardous activities in their workplace and design into locations engineering controls such as guards, barriers, edge protection, etc., to prevent access to a known hazard. Only when engineering controls cannot be used or implemented, personal protective equipment (PPE) may be used to aid in controlling hazards to personnel in a Department's operation.
- The department owning or exposing personnel to hazards is responsible for the selection of the proper equipment based upon a hazard analysis of work tasks. In addition, Owner Departments must ensure regulatory applicable training is provided to their personnel who use the equipment, keep the records of training completed, and schedule periodic inspections of all equipment under their ownership or control.
- Toward this end, the Department owning the equipment must:
 - Notify SRM of training needs to designated personnel. Refer to section 4 of this document for training requirements applicable to this Program.
 - Notify SRM when new equipment is purchased so that it can be inspected and added to the JHA and Equipment inventory.
 - o Schedule with SRM a periodic inspection.
 - Render unusable and then dispose of any equipment that is in any way questionably unsafe as determined by the inspector or the person using the equipment.
- DM's are encouraged to designate an individual as the department safety coordinator, to assist with the specific operational environmental, health and safety process management components.

2.4 Supervisors and Principal Investigators

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Supervisors play a key role in the implementation of the Cal Maritime's Injury Illness Prevention Program components. Supervisors may be Management, Senior Research Associates, Department Chairs, Principal Investigators, or others who oversee a project and/or staff. They are responsible for but not limited to:

- Communicating to their staff and students about Cal Maritime campus's emphasis on health and safety.
- Ensuring periodic, documented inspection of workspaces under their authority.
- Promptly correcting identified hazards.
- Modeling and enforcing safe and healthful work practices.
- Providing appropriate safety training and personal protective equipment.
- Implementing measures to eliminate or control workplace hazards.
- Stopping any employee's work that poses an imminent hazard to either the employee or any other individual.
- Encouraging employees to report health and safety issues without fear of reprisal.

2.5 Academic Programming Faculty and Advisors

It is the responsibility of Faculty, Academic Programming Advisors other Cal Maritime related activities and student clubs to:

- Develop procedures to ensure effective compliance and support of the Injury and Illness Prevention Program components as it relates to operations under their control. Specific areas of responsibility include student education and training, identification and correction of unsafe conditions, and incident reporting.
- Develop and maintain written classroom, laboratory, and activity procedures which conform to regulatory, campus and departmental guidelines.
- Instruct students in the recognition, avoidance, and response to unsafe conditions, including hazards associated with non-routine tasks and emergency operations
- Permit only those persons qualified by education and training to operate potentially hazardous equipment or use hazardous materials, unless under close supervision.
- Supervise students in the performance of activities.

2.6 Students- Cadets

Students are expected to always adhere to safety practices presented by faculty, technical staff, student assistants, graduate assistants or other authorized individuals. They must also report potentially hazardous conditions that become known to

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them. These reports should be made to their supervisors, faculty advisers, Department of Safety and Risk Management, or other responsible parties.

2.7 Aerial Lift Operators

- Are trained on and apply "Safe-Work Rules" for users as outlined in this Program.
- Always selects and uses a hand and power tools or equipment in a safe manner.
- Visual inspect equipment prior to use.
- Alerts DM when equipment need repair/replacement.
- Assesses work to determine hazard potential seeks alternative methods is a means to reduce risk.
- Proactively use Stop Work Authority when they feel there is an unsafe condition present by means of communicating with Department Management and SRM to work collaboratively to resolve and improve identified or perceived condition.

3.0 Integrated Safe Process Management

3.1 Hazard Identification, Risk Assessment & Control (HIRAC)

3.1.1 Integrated Safety Management (ISM)

Cal Maritime is committed to having all campus-related work performed safely and in a manner that strives for the highest degree of protection for the Campus Community. To achieve these goals, Cal Maritime implements, the principles of safety through an Integrated Campus Safety Management System (ICSMS).

Simply put, ICSMS applies a plan-do-check-act approach to campus safety management. Five core activities represent the plan-do-check-act approach, and comprise the underlying process for any construction work activity. The five core activities are:

- 1) Define the Scope of Work
- 2) Analyze the Hazards
- 3) Develop and Implement Hazard Controls
- 4) Perform Work Within Controls
- 5) Provide Feedback and Manage Change



The campus Job Hazards Analysis (JHA) process is the principle method for achieving this.

3.1.2 Hazard Identification, Risk Assessment & Determining Control Table (HIRAC)

The EHS Hazard Identification, Risk Assessment and Determining Control Table (HIRAC) process is used to identify, assess and risk-rank Cal Maritime campus-related activities in order to ensure that Cal Maritime Campus Safety programs, activities and work controls are appropriately addressing construction risks. The initial HIRAC assessment and risk-ranking of campus-related activities was conducted during the third quarter, AY 2016-2017. The HIRAC assessment will be reviewed annually, when new campus-related activities are introduced that create or modify assessed risks, and when worksite observations or accident/incident experience identify previously unrecognized or incorrectly categorized risks.

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3.1.3 Application of Hierarchy of Controls

In developing hazard controls and preparing the Job Hazard Analysis submittal, the campus shall select means and methods to mitigate worker exposure to workplace hazards using the Hierarchy of Controls as specified in the American National Standards Institute (ANSI) Z10-2005 Occupational Health and Safety Management Systems.

The campus shall make a good faith effort to analyze each hazard and identify the appropriate control(s) using the following hierarchy:

- Elimination or substitution of the hazards where feasible and appropriate;
- Use of engineering controls where feasible and appropriate;
- Application of work practices and administrative controls that limit worker exposures; and
- Provision and use of personal protective equipment

3.1.4 Job Hazards Analysis (JHA)

For the purposes of this section Job Hazard Analysis (JHA) and Job Safety Analysis (JSA) can be used synonymously. A JHA/JSA can be incorporated into a Pre Task Plan, provided there is a section for employees to review, comment and sign. Core components of the scope of work and relative hazards can be electronically completed ahead of time, provided there is room for current site conditions are able to be readily added as applicable. When the scope or conditions change, the change in work plan should be noted in a different colored pen with employee's initially that they have been briefed on the change. The Department of Safety and Risk Management will work with individual Departments to develop a master Campus JHA library.

- Each employee scheduled to work in the activities identified below shall receive safety training in those activities prior to working on them.
- Subcontractors shall submit a Job Hazards Analysis (JHA) for those construction activities meeting the requirements for performing JHA (see below). The JHA shall be reviewed and authorized to proceed by the Cal Maritime Department of Safety and Risk Management before work commences.
- Subcontractor shall be responsible for submitting a JHA and work procedures to Cal Maritime Department of Safety and Risk Management for review a minimum of seven days prior to the start of work for most work activities.

3.1.4.1 JHA Requirements

A JHA shall be written based on the following conditions:

- Jobs with the highest injury or illness rates
- Jobs with the potential to cause severe or disabling injuries or illness, even if there is no history of previous accidents
- Jobs in which one simple human error could lead to a severe accident or injury
- Jobs that are new to your operation or have undergone changes in processes and procedures
- Jobs complex enough to require written instructions.

If not otherwise specified in a particular project specification, the JHA shall be performed in accordance with the OSHA 3071.

JHA processes. In general the JHA will include:

- Description of work phase or activity
- Identification of potential hazards associated with the activity
- Address further hazards revealed by supplemental site information (e.g., site characterization data, as-built drawings) provided by the subcontractors construction manager.
- A list of the Subcontractor's planned controls to mitigate the identified hazards
- Identification of specialized training required
- Identification of special permits required
- Name of the Subcontractor's Competent Person(s) responsible for inspecting the activity and ensuring that all proposed safety measures are followed.

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3.2 Hazard Assessment

▲ Note: Each work scope will have its own JHA, refer to the JHA Library for more details.

GENE	RAL H	AZARD IC	DENTIFICAT	ION 8	CON	TROL I	MEASU	RES FOR E	QUIPM	ENT U	JSE			
TASK			HAZARD				HAZARD CONTROLS & PROTECTION MEASURES							
	Use o Injuri worke	of Aerial Lift es to opera ers, and by:	ts - itor, co- standers		<u>^</u>	7	Wari bysta over & Visua	n people in wo anders a safe c hangs, and pov al inspection a	rk area; u listance fi wer lines; nd operat	tilize ba om job level tr ional cł	arricades, cone ; position lift a ruck base and b neck of aerial li	s, or ca way fro lock w ft	ution ta om traffi heels.	pe to keep c, building
OPERATION OF AERIAL LIFTS	Use of Aerial Lifts Falling injuries Eye, hand, arm injuries to operator Electrical injuries to operator.				 Secure operator with a body belt and personal lanyard anchored to boom. Never exceed the posted lift capacity (including worker, material, and tools). Never use lift as a crane or hoist to lift or lower materials. Always look in the direction of travel of the bucket when operating lift; never run boom or bucket into conductors, cables, poles, trees, etc. Never move the lift truck when the boom is elevated in a working position with an operator in the bucket. No part of the body shall be used to locate or to attempt to stop a hydraulic leak. Wear hard hat, gloves, and safety glasses. Maintain a minimum clearance of 10 feet from energized conductors rated 50kV phase-to-phase or less; for lines rated over 50kV phase-to-phase, the minimum clearance shall be 10 feet plus 4/10 inch for each kilovolt greater than 50 kV phase-to-phase Ensure all electrical equipment is properly grounded. (i.e. three prong electrical plugs) and in proper working order before using. Strictly follow all manufactures precautions and recommendations. DO NOT overload circuits by stringing multiple power strips (also known as 									
	Caught in between Pinch Points Cuts, pinches, smashes, punctures, severing of fingers.				2	daisv đ Use đ Keep đ Ensu oper	y chaining) normal cautior hands and fee re at least 3-fe ation.	n requirec et inside e eet distan	l for all equipme ce from	hand tools. ent while opera equipment an	ating. d pede	strian d	uring	
		DO NOT use	this equipmer	nt unless	an inst	TRAIN ructor o	ING REQ	UIREMENTS	structed	vou in t	he safe use an	d oper	ation	
				aı	nd has a	uthorize	ed you to	operate this e	quipment	-	, ,			
✓ IIPP	• √	Ó Dept. Sp	ecific	√ 0	perators	s/Owner	's Manua		✓ C	ther:				
				6	PERS	ONAL	PROTEC		VIENT					
)			E. C			ſ)		پې		R	E	F)	
Eye Protecti	ion	Foot Protection	Hand Protection	Hear Prote	ring ction	Body Pr	otection	Head Protection	Respira Protec	atory tion	Fall Protection	Face	Shield	OTHER
Wher exposed eye or fa hazards f flying particle molte metal, lid chemica acids o causti liquids chemic gases o vapors, potentia injurioo light radiatio	n di to acce a a from generativo acce a from generativo acce acce acce acce acce acce acce acc	When working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, or will protect the affected	When hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns	Wh expose tim weigh aver, noise le 85 dB higher an 8 h work s	en d to a ne nted age evel of A or over nour shift.	When ex to: Inten hot meta hot liqui Impacts material can cut, Hazardo chemica Or poter infectiou material	xposure ise heat, als, other ds from s that burn us ls stially is s	Where there is a potential for injury to the head from falling objects and/or when there is a risk of impact to head	May requir remov contam from tl does no belo permis exposure	be ed if ral of inants ne air ot fall ow sible e level.	When there is a risk of falling from a height greater than 4ft GSO 6ft CSO 6ft MSO When working in confined space	Face can b ove glas: ther prese a lc flying	shield e used r the ses if e is a nce of ot of debris.	
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3.3 General Requirements

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This Program guides all aspects of the **Aerial Lift / Elevating Work Platform Safety Program** for the Cal Maritime. As mandated by Cal/OSHA and other regulatory compliance codes, this program guides compliance with, and application of, all legal requirements for Cal Maritime 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 an work-environment and job-task hazard analysis,
- 2. Train and license personnel who operate their specific type of owned / rented equipment,
- 3. Conduct documented safety inspections and preventive maintenance of the equipment,
- 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.

3.3.1 Types of Aerial Lift/Elevated Work Platforms

ololi iype	Articulating Boom Lift:	
	An aperial device with two or more hinged been sections	Sec. 1
(A)	Fall Protection is required when operating this equipment	
	Fair Frotection is required when operating this equipment	
	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 Lift, but is highly	has see a
	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	0-0-0
	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	\sim
	and is generally designed to carry more than one person.	No.
	Fall Protection is not required when operating this Lift, but is highly	Mai mia
	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	ARTIC
	Fall Protection is required when operating this equipment	
	Vehicle Mounted Lift:	
	These devices typically have a Bucket in place of a basket, which is	and a start of the
	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 equipment	0

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3.4 Program Requirements/Operator Procedures

3.4.1 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:

3.4.1.1 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.

3.4.1.2 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.

3.4.1.3 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.

3.4.1.4 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.

3.5 **Operator Training / Licensing Procedures**

Each Operator must successfully complete Operator Safety Training prior to operating AL/EWP equipment on Cal Maritime 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 SRM to operate AL/EWP equipment.

SRM 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 SRM 707-654-1076 to arrange training for Department personnel.

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3.5.1 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. SRM tracks owner Department training records on the LMS and also optionally by the Department in the trainee "s personnel file.

3.5.2 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 70% or more is required before the scheduling of the hands- on/field training. Records of completed exams are kept by the LMS, and also optionally by the Department in the trainee "s personnel file.

3.5.3 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 SRM 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 by SRM.

3.5.4 Operator Licensing

When the trainee successfully completes both written and hands-on testing, Cal Maritime SRM 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.

An Operator's License is issued by SRM, is credit-card size, and must be carried by the Operator whenever they are operating an AL/EWP on Cal Maritime 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 designated safety coordinator.

3.6 Operator Safe-work Procedures

3.6.1 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" 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.

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3.6.2 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 SRM website's "Fall Protection & Prevention Safety Program". The use of fall protection gear is always recommended by SRM, 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.

Articulating Boom Lift	Elevating Work Platform	Extensible Boom Platform
Scissor Platform Lift	Trailer Mounted Aerial Lift	Vehicle Mounted Aerial Lift (Bucket Truck)

3.6.3 "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.

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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 Hazardous Energy Control Safety Program.

3.7 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:

- Review work area for hazards, and remove/control them prior to operation.
- Always conduct an environmental hazard assessment prior to selecting / using AL/EWP equipment.
- Only use AL/EWP equipment designed to safely work in the work-area conditions observed.
- Review operating instructions, warnings, and precautions for the types of AL/EWP being operated.
- 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?
- Inspect engine or motor operation.

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- Inspect steering and maneuvering.
- Familiarize yourself with visibility.
- Inspect basket or platform capacity and equipment stability.
- Complete and document the inspection process using the appropriate inspection form
- Check fuel and/or charging of batteries, and refuel/recharge as needed.
- Review and understand equipment operating limitations.
- Review other operating instructions, warnings, or precautions listed in the operator's manual for the types of AL/EWP that you will operate.
- Alert all persons in the work area of intended work activities and hazards.
- Don't travel horizontally with the platform elevated or extended.
- Don't exceed the basket or platform capacity.
- Position equipment on a firm level surface and minimize blocks or ramps for leveling the AL/EWP equipment.
- Always set outriggers prior to use if the AL/EWP is equipped with them.
- 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.)
- "Barrier off" the lift swing work-area below the AL/EWP equipment "s work zone.
- Don't climb on guardrails, climb on ladders or stand on other items when working on the platform.
- Practices good housekeeping when working in and around the platform.
- Never drop or throw objects to or from the work platform.
- Always look below platform and confirm it's safe to lower the equipment before lowering the equipment.
- Never lean the platform on or against structures.
- 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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4.0 Training Requirements

Effective dissemination of safety information lies at the very heart of a successful Injury and Illness Prevention Program. It is essential to provide training for employees concerning general safe work practices as well as specific instruction with respect to hazards unique to each employee's job assignment.

Training content is determined by the Department of Safety and Risk Management, as well as Department Management which is based upon observed hazards, type of equipment, Department need, and work requirements.

- Providing training from within the department as a part of academic programming, or
- Training provided by CSU-System, or
- Training provided by Cal Maritime SRM, or
- A training provider outside the University.

Note: All outside trainer venders are to be reviewed and content approved by SRM. The Department of Safety and Risk Management, in conjunction with various departments have developed training programs designed to meet general safe work practice requirements. These programs are elements of larger programs which service broad campus needs.

Department Safety Coordinators and/or "Responsible Person"

- Are familiar with the Administrative and Personnel Training Procedures of this program, and implement/integrate them into their research/work/business practices.
- Receive detailed training and support from the Aerial Lift/Elevating Work Platform Program Manager at SRM concerning their roles/responsibilities in implementing/integrating this program into their Department's research/work/business practices.

Aerial Lift/Elevating Work Platform Operators

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

Refresher Training

- Cal-OSHA requires refresher training to ensure the Operator has the knowledge and skills needed to operate AL/EWP equipment safely when:
 - o A condition in the workplace changes in a manner that could affect safe operation of the AL/EWP
 - 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.

Retraining may be necessary to maintain employee knowledge of working with tools or if a near-miss or injury has occurred.

Training is to be documented and kept in a readily accessible location by the Department designee for access reference as needed by Department Management, Department of Safety & Risk Management, or regulatory agency (e.g. CalOSHA). Submit the completed training roster of attendees to the Department of Safety & Risk Management.

Refer to Cal/OSHA Safety & Health Training and Instruction Requirements as outlined in Appendix C of the Injury Illness Prevention Program.

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5.0 Document Control & Recordkeeping

Essential records, including those legally required for Workers' Compensation, insurance audits and government inspections will be maintained for as long as required. Individual Departments and/or Colleges will also keep records of steps taken to establish and maintain the Injury and Illness Prevention Program.

They must include:

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- Records of scheduled and periodic inspections to identify unsafe conditions and work practices. The documentation includes the name of the person(s) conducting the inspection, the unsafe conditions and work practices identified, and the corrective action(s) taken. These records will be maintained for at least three years.
- Documentation of health and safety training for each employee. Specifically, employee name or other identifier, training dates, type(s) of training and the name of the training provider will be included. Records will be retained for at least three years. Standard forms for maintaining this information can be obtained from the Department of Safety and Risk Management.

Training records will be kept in each department and copies will be forwarded to the Department of Safety and Risk Management.

Departments must maintain the following records as part of the hand and portable power tool safety program.

- Employee training records
- Specialized SOPs
- Manufacturer specifications/manuals
- Maintenance/service records

Record	Timeframe/Frequency	Location of Record	Retention Period*
Aerial Lift Safety Training-	Initial, Annual Refresher for	Document on	
General	affected employees.	Employee's Safety	3-Years
		Training Checklist	
Fall Protection Tool Safety	Post incident and/or process	Document on	
Training-General	management change for	Employee's Safety	3-Years
	affected employees.	Training Checklist	
Aerial Safety Training-	Initial, Annual Refresher for	Document on	
Equipment Specific	affected employees.	Employee's Safety	3-Years
		Training Checklist	
Aerial Safety Training-	Post incident and/or process	Document on	
Equipment Specific	management change for	Employee's Safety	3-Years
	affected employees.	Training Checklist	

*Refer to the Injury Illness Prevention Program Document Retention Table and/or California State University Systemwide for more information.

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Appendix A: Definitions

General

ANSI:	American National Standards Institute
Authorized person:	Means a person approved or assigned by the employer to perform a specific type of duty or duties
	or to be at a specific location or locations at the jobsite.
Competent person:	A competent person is a person who is capable of identifying existing and predictable hazards in
	the surroundings or working conditions that are unsanitary, hazardous, or dangerous to
	employees.
	The competent person has the authority to impose prompt corrective measures to eliminate
	these hazards.
	Examples:
	Excavation - Inspectors 1541
	Fall Protection Plan implementers & supervisors 1671.1
	Lift Slab Construction 1522.1
Confined Space:	Is a space that (1) is large enough and so configured that an employee can enter bodily, (2) has
	limited or restricted means for entry or exit (e.g., tanks, vessels, vaults, shafts, pits), and (3) is not
	designed for continuous occupancy.
Construction Manager:	Is the Cal Maritime employee responsible for the supervision and field management of day-to-day
	needs of a construction project. It may be a project superintendent, a craft supervisor, or a lead
	person.
Construction work:	For purposes of this section, "Construction work" means work for construction, alteration, and/or
	repair, including painting and decorating. Construction: is any combination of engineering,
	procurement, erection, installation, assembly, demolition, or fabrication used to create a new
	facility, or to alter, add to, rehabilitate, dismantle, or remove an existing facility. It also includes
	the alteration and repair (including dredging, excavating, and painting) of buildings, structures, or
	other real property, as well as any construction and excavation activities conducted as part of
	environmental remediation efforts.
Controlled Access Zone (CAZ)	Means an area in which certain work (e.g., overhand bricklaying) may take place without the use
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Controlled Access Zone (CAZ) Imminent Danger: Project Manager: Shall: Should: Subcontractor: Qualified Person:	 Means an area in which certain work (e.g., overhand bricklaying) may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled Is any condition or practice that could reasonably be expected to cause death or serious physical harm (permanent or prolonged impairment of the body or temporary disablement requiring hospitalization) to employees or the public unless immediate actions are taken. Is the Cal Maritime employee representative with overall responsibility for a project. This person ensures subcontractor compliance with subcontract documents, including performance, schedule, budget, and safety. Means mandatory Means recommended Is a firm that has sole contractual responsibility for execution of the construction work related to a project, and for compliance with all safety, health, and environmental codes, standards, and regulations. A qualified person is a person designated by the employer; and by reason of training, experience, or instruction has demonstrated the ability to perform safely all assigned duties; &, when required is properly licensed in accordance with federal, state, or local laws and regulations. Examples: Mobile Crane & Tower Crane Operators 5006.1(a) Scaffold Erection & Dismantling Supervisors 1637(k)(1) Demolition 1736 Personal Fall Arrest System supervisors 1670(b)

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Definitions (cont.)

Aerial Lift Specific

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.
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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Appendix B: Job Hazard Analysis Template-Sample SAFETY GUIDELINES IMAGE **SCOPE OF WORK/EQUIPMENT USE DEPARTMENT:** HAZARD POTENTIAL EVALUATION □Struck By **U**Weather Conditions □Struck Against □Hazardous □Slip/Trip/Fall Substance □Caught In/Between **D**Electrical Hazards □ Material Handling □Obstruction **D**Equipment Operating SRM-HIRAC 1 2 3 4 **TRAINING REQUIREMENTS** DO NOT use this equipment unless an instructor or shop supervisor has instructed you in the safe use and operation and has authorized you to operate this equipment. IIPP Dept. Specific **Operators/Owner's Manual** Other: PERSONAL PROTECIVE EQUIPMENT Hand Hearing Body Head Respiratory Fall Foot OTHER **Face Shield** Protection Protection Protection Protection Protection Protection Protection Protection When When When When When Where May be When Face shield exposed to working in hands are exposed to exposure there is a required if there is a can be used eve or face areas exposed to a time to: Intense potential removal of risk of over the hazards where hazards weighted heat. for injury to contaminan falling from glasses if the head from flying there is a such as average hot metals, ts from the a height there is a particles, danger of those from noise level other hot from falling air does not presence of greater molten foot injuries of 85 dBA liquids objects fall below than a lot of skin metal, due to absorption or higher Impacts and/or permissible 4ft GSO flying liquid falling or of harmful over an 8 from when there exposure 6ft CSO debris. chemicals, rolling substances; hour work materials is a risk of level. 6ft MSO acids or shift. impact to When objects, or severe cuts that can caustic objects cut. burn head working in or liquids, piercing the lacerations: Hazardous confined chemical sole, or will chemicals severe space gases or protect the abrasions; Or vapors, or affected punctures; potentially potentially chemical infectious injurious burns materials light radiation... **HAZARD CONTROLS & PROTECTION MEASURES** HAZARDS IF CONDITIONS CHANGE: STOP WORK IMMEDIATELY-REVIEW WITH SUPERVISOR-DOCUMENT HAZARD-REVIEW WITH SRM Electronically Controlled. Latest revision is in the Document Management System. A printed copy is uncontrolled and may be outdated unless it bears a red ink "controlled copy" stamp Document # 09-04002 Cal Maritime Injury Illness Prevention Program Page 19 of 44 Department of Safety & Risk Management **Revision: 002**



Aerial Lift & Elevated Work Safety Program

SAFE OPERATING PROCEEDURES			
	STEPS/TASKS	HAZARD POTENTIAL	HAZARD CONTROLS & PROTECTION MEASURES
1			
2			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
		NOTES	
		NOTES	
FM			EVACAUTION ASSEMBLY POINT
1	First Aid Kit		
2	AED		
3	Emergency phone	Campus Police- 707-654-1111 c	r 911
	REMINDER: TO YOUR SUP	IMMEDIATELY REPORT ALL INCIDENT PERVISOR AND THE DEPARTMENT OF	S, REGARDLESS OF SEVERITY, SAFETY & RISK MANAGEMENT.
но	JSEKEEPING & SECURITY	SHOP SUPERVISOR	MUST BE PRESENT WHEN SHOP IS OCCUPIED
1	Is the work area/site Clean?	Ensure work area is clean daily of daily	and that any hazardous materials are properly disposed
2	Is the work area/site Secure?	Ensure lights are turned off and	building is locked upon exiting work for the day.
3			

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T	CAL MARITIME	Aerial Lift	and Elevating	Work Platform Sa	fety Pı	rograi	n
Fo	orm 1A: Articulatir	g Boom Lift Pre	-Operation In	spection			
Lift	MFG:	Model:	Serial #:			-	
Dat	e:	Start Time AM / PM (circle one)	Ŕ	WEAR FALL PROTECTION WHEN USING THIS LIFT		SKC/S.	
Ins t See	tructions: Operator must cheet the reverse side of this pag	eck off each item as havir e and complete the Worl	ng been checked 'OK' a site Evaluation for ev	and safe to use during daily ins very new location.	pection pr	ior to op	eration.
KE	Y OFF PROCEDURES				PASS	FAIL	N/A
1	Check that the operator's m manual and is aware of its	nanual, decals are in place limitations.	e and legible, and that	the operator has reviewed the	5		
2	Check Hydraulic cylinders/L	ifting mechanism/Fluid le	vel				
3	Check welds, pins, missing r	uts or bolts and other str	ructural parts for crack	s or defects			
4	Check drive hubs, engine fo	r oil leaks					
5	Check platform entry mid-ra	ail/gate, and platform or	basket housekeeping				
6	Examine the battery & fire e	extinguisher					
7	Check fuel level to assure th	at the unit can operate t	he duration of the job				
8	Operator is responsible for and attached properly	inspecting all fall protecti	on and insure that all	fall protection is being worn			
9	Tires/Rollers/Monitor tire a (Front Rightpsi, Front	ir pressure if pneumatic t Leftpsi, Right Rear_	_psi, Left Rearpsi)			
10							
KE	Y ON PROCEDURES				PASS	FAIL	N/A
1	Check all ground controls fo could save your life)	r proper operation, inclu	ding emergency lower	ing means (remember, these			
2	Check all basket controls, fo	ot switch, horn for prope	roperation				
3	Battery discharge indicator,	Hour meter					
4	Steering and drive system						
5	Check limit switches, alarms raising/swing/extending bo	s, and flashing beacon if e oms, tilt/rotate the baske	quipped (operating th et)	e lift by			
6							
7	Starting Hour Meter Readin Hours	g:	Operator's	Name: (Printed / Signature)			
CC	OMMENTS/NOTES:						

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Aerial Lift and Elevating Work Platform Hazard Assessment

Form 1B: Articulating Boom Lift Site Hazard Assessment

Department Location(s):

Type of Work to be conducted:



SITE	EVALUATION	YES	NO	N/A
1	Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
2	Are surface conditions where the lift is used free of obstructions and on level surface?			
3	Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
4	Are there overhead obstructions or restricted places where the lift will be operated?			
5	Will the basket handle the loads to be carried without exceeding the rated capacity?			
6	Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
7	Will the lift be used for electrical work or near high voltage lines?			
8	Are there 'Classified Hazardous' locations where the vehicle will be operated?			
9	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?			
10	Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer's rated design allowance?			
11	List below other potentially hazardous site-conditions that could affect safe operation:			
12				
PRO	CESS/USE OF LIFT TRUCK	YES	NO	N/A
1	Has the proper Lift been chosen for the type of work being conducted?			
2	Does the Lift have the proper lift height and capacity for the job?			
3	Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
4	Is the basket free of trip hazards and proper housekeeping maintained?			
5	Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian-aisles, doorways, footpaths, or electrical panels.)			
_				
6	Is the fueling and/or charging area well ventilated?			
6 7	Is the fueling and/or charging area well ventilated? Is there proper lighting in the areas the Lift is being used?			
6 7 8	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'?			
6 7 8 9	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:			
6 7 8 9 10	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:			
6 7 8 9 10 NOT	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: ES:			
6 7 8 9 10 NOT	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: ES:			
6 7 8 9 10 NOT	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: ES:			

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7	CAL MARITIME	Aerial Lift and	l Elevating Work Platform Saf	ety Pro	ogram	
Fo	rm 2A: Elevating W	Vork Platform Pre-o	peration Inspection		-	
Lift	MFG:	Model:	Serial #:			
Date	2:	Start Time AM / PM (circle one)	Fall Protection is not required when operating this Lift, but is highly recommended.	Genie		
lnst the	ructions: Operator must cheor reverse side of this page and	ck off each item as having been o I complete the Work Site Evaluat	checked 'OK' and safe to use during daily inspect tion for every new location.	tion prior t	o operati	on. See
KE	Y OFF PROCEDURES			PASS	FAIL	N/A
1	Check that the operator's ma manual and is aware of its li	anual, decals are in place and leg mitations.	yible, and that the operator has reviewed the			
2	Check Hydraulic cylinders/Lif	fting mechanism/Fluid level				
3	Check welds, pins, missing n	lds, pins, missing nuts or bolts and other structural parts for cracks or defects				
4	Check outriggers, outrigger limiting switches, and locking pins					
5	Check platform entry mid-rai	platform entry mid-rail/gate, and platform or basket housekeeping				
6	Examine the battery & fire ex	re extinguisher				
7	Check battery level to assure	ure that the unit can operate the duration of the job				
8	Operator is responsible for ir attached properly	nspecting all fall protection and i	nsure that all fall protection is being worn and			
9	Tires/Rollers/Monitor tire ainpsi, Left Rearpsi	r pressure if pneumatic (Front R si)	ightpsi, Front Leftpsi, Right Rear			
10						
KE	Y ON PROCEDURES			PASS	FAIL	N/A
1	Check all ground controls for could save your life)	proper operation, including em	ergency lowering means (remember, these			
2	Check all basket controls, for	ot switch, horn for proper operat	tion			
3	Battery discharge indicator, I	Hour meter				
4	Steering and drive system					
5	Check limit switches, alarms, booms, tilt/rotate the basket	, and flashing beacon if equipped t)	d (operating the lift by raising/swing/extending			
6						
7	Starting Hour Meter Reading Hours	;:	Operator's Name: (Printed / Signature)			
CO	MMENTS/NOTES:					

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Aerial Lift and Elevating Work Platform Hazard Assessment

Form 2B: Elevated Work Platform Lift Site Hazard Assessment

Department Location(s):

Type of Work to be conducted:



SIT	E EVALUATION	YES	NO	N/A
1	Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
2	Are surface conditions where the lift is used free of obstructions and on level surface?			
3	Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
4	Are there overhead obstructions or restricted places where the lift will be operated?			-
5	Will the basket handle the loads to be carried without exceeding the rated capacity?			
6	Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
7	Will the lift be used for electrical work or near high voltage lines?			
8	Are there 'Classified Hazardous' locations where the vehicle will be operated?			
9	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?			
10	Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer's rated design allowance?			
11	List below other potentially hazardous site-conditions that could affect safe operation:	•		
12				
PRO	DCESS/USE OF LIFT TRUCK	YES	NO	N/A
1	Has the proper Lift been chosen for the type of work being conducted?			
2	Does the Lift have the proper lift height and capacity for the job?			
3	Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
4	Is the basket free of trip hazards and proper housekeeping maintained?			
5	Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian-aisles, doorways, footpaths, or electrical panels.)			
6	Is the fueling and/or charging area well ventilated?			
7	Is there proper lighting in the areas the Lift is being used?			
8	Are Propane bottles being kept in a secure area, and are they tagged 'Full' or 'Empty'?			
9	List below other potentially hazardous process-conditions that could affect safe operation:	•		-
10				
NO	TES:			
NO	TES:			
NO	TES:			

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7	CAL MARITIME Aerial Lift and Elevating Work Platform Safety Program					
Fo	rm 3A: Lift Pod Pr	e-operation Inspec	tion	4		
Lift	MFG:	Model:	Serial #:			
Dat	e:	Start Time AM / PM (circle one)	Fall Protection is not required when operating this Lift, but is highly recommended.		200	•
Inst the	ructions: Operator must che reverse side of this page and	ck off each item as having be d complete the Work Site Eva	en checked 'OK' and safe to use during daily inspec luation for every new location.	ction prior t	to operat	ion. See
KE.				PASS	FAIL	N/A
1	Check that the operator's m manual and is aware of its 1	anual, decals are in place and imitations.	l legible, and that the operator has reviewed the			
2	Check Hydraulic cylinders/Li	fting mechanism/Fluid level				
3	Check welds, pins, missing n	uts or bolts and other structu	ral parts for cracks or defects			
4	Check outriggers, outrigger l	ggers, outrigger limiting switches, and locking pins				
5	Check platform entry mid-ra	il/gate, and platform or baske				
6	Examine the battery & fire e	extinguisher				
7	Check battery level to assure	ure that the unit can operate the duration of the job				
8	Operator is responsible for in attached properly	nspecting all fall protection ar	nd insure that all fall protection is being worn and			
9	Tires/Rollers/Monitor tire ai psi, Left Rearp	r pressure if pneumatic(Fron si)	it Rightpsi, Front Leftpsi, Right Rear			
10						
KE	Y ON PROCEDURES			PASS	FAIL	N/A
1	Check all ground controls for could save your life)	r proper operation, including	emergency lowering means (remember, these			
2	Check all basket controls, for	ot switch, horn for proper ope	eration			
3	Battery discharge indicator,	Hour meter				
4	Steering and drive system					
5	Check limit switches, alarms booms, tilt/rotate the baske	, and flashing beacon if equip t)	ped (operating the lift by raising/swing/extending			
6						
7	Starting Hour Meter Reading Hours	g.	Operator's Name: (Printed / Signature)			
CO	MMENTS/NOTES:					
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Aerial Lift and Elevating Work Platform Hazard Assessment



Form 3B: Lift Pod Site Hazard Assessment

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
1	Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
2	Are surface conditions where the lift is used free of obstructions and on level surface?			
3	Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
4	Are there overhead obstructions or restricted places where the lift will be operated?			
5	Will the basket handle the loads to be carried without exceeding the rated capacity?			
6	Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
7	Will the lift be used for electrical work or near high voltage lines?			
8	Are there 'Classified Hazardous' locations where the vehicle will be operated?			
9	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?			
10	Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer's rated design allowance?			
11	List below other potentially hazardous site-conditions that could affect safe operation:			
12				
PRC	CESS/USE OF LIFT TRUCK	YES	NO	N/A
1	Has the proper Lift been chosen for the type of work being conducted?			
2	Does the Lift have the proper lift height and capacity for the job?			
3				
	Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
4	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?			
4 5	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.)			
4 5 6	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?			
4 5 6 7	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?			
4 5 6 7 8	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'?			
4 5 6 7 8 9	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:			
4 5 6 7 8 9 10	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:			
4 5 7 8 9 10 NOT	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: ES:			
4 5 7 8 9 10 NOT	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: ES:			
4 5 7 8 9 10 NO T	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: ES:			

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*	Aerial Lift and Elevating Work Platform Safety Program						
Fo	rm 4A: Extensible	Boom Platform Pre-ope	eration	Inspection			Τ
LITT	MFG: Model: Serial #:						
Date	ate: Start Time AM / PM (circle one) WHEN						
Inst the	ructions: Operator must che reverse side of this page and	ck off each item as having been check d complete the Work Site Evaluation f	ked 'OK' an or every ne	d safe to use during daily inspec w location.	tion prior	to opera	tion. See
KE	Y OFF PROCEDURES				PASS	FAIL	N/A
1	Check that the operator's m manual and is aware of its li	anual, decals are in place and legible, imitations	and the op	erator has reviewed the			
2	Check Hydraulic cylinders/Lit	fting mechanism/Fluid level					
3	Check welds, pins, missing n	uts or bolts and other structural parts	for cracks	or defects			
4	Check drive hubs, engine for	oil leaks					
5	Check platform entry mid-ra	il/gate, and platform or basket house	keeping				
6	Examine the battery & fire e	xtinguisher					
7	Check fuel level to assure the	at the unit can operate the duration c	of the job				
8	Operator is responsible for in attached properly	nspecting all fall protection and insure	e that all fa	l protection is being worn and			
9	Tires/Rollers/Monitor tire ai psi, Left Rearp	r pressure if pneumatic(Front Right_ si)	psi,	Front Left _psi, Right Rear			
10							
KE.	Y ON PROCEDURES				PASS	FAIL	N/A
1	Check all ground controls for could save your life)	r proper operation, including emerger	ncy lowerin	g means (remember, these			
2	Check all basket controls, for	ot switch, horn for proper operation					
3	Battery discharge indicator,	Hour meter					
4	Steering and drive system						
5	Check limit switches, alarms, and flashing beacon if equipped (operating the lift by raising/swing/extending booms, tilt/rotate the basket)						
6	Check outriggers for proper	ck outriggers for proper operation if equipped					
7			Operator's	Name: (Printed / Signature)	I		
<u> </u>							
	IVIIVIENTS/INUTES:						

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Aerial Lift and Elevating Work Platform Hazard Assessment

Form 4B: Extensible Boom Platform Site Hazard Assessment

Department Location(s):

Type of Work to be conducted:



SITE	EVALUATION	YES	NO	N/A
1	Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
2	Are surface conditions where the lift is used free of obstructions and on level surface?			
3	Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
4	Are there overhead obstructions or restricted places where the lift will be operated?			
5	Will the basket handle the loads to be carried without exceeding the rated capacity?			
6	Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
7	Will the lift be used for electrical work or near high voltage lines?			
8	Are there 'Classified Hazardous' locations where the vehicle will be operated?			
9	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?			
10	Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer's rated design allowance?			
11	List below other potentially hazardous site-conditions that could affect safe operation:			
12				
PRO	CESS/USE OF LIFT TRUCK	YES	NO	N/A
PRO 1	CESS/USE OF LIFT TRUCK Has the proper Lift been chosen for the type of work being conducted?	YES	NO	N/A
PRO 1 2	CESS/USE OF LIFT TRUCK 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?	YES	NO	N/A
PRO 1 2 3	CESS/USE OF LIFT TRUCK 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?	YES	NO	N/A
PRO 1 2 3 4	CESS/USE OF LIFT TRUCK 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?	YES	NO	N/A
PRO 1 2 3 4 5	CESS/USE OF LIFT TRUCK 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.)	YES		N/A
PRO 1 2 3 4 5 6	CESS/USE OF LIFT TRUCK 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?	YES		N/A
PRO 1 2 3 4 5 6 7	CESS/USE OF LIFT TRUCK 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?	YES		N/A
PRO 1 2 3 4 5 6 7 8	CESS/USE OF LIFT TRUCK 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'?	YES	NO	N/A
PRO 1 2 3 4 5 5 6 7 8 9	CESS/USE OF LIFT TRUCKHas 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:	YES		N/A
PRO 1 2 3 4 5 5 6 7 8 9 10	CESS/USE OF LIFT TRUCK 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:	YES		N/A
PRO 1 2 3 4 5 5 6 7 8 9 10 NOT	CESS/USE OF LIFT TRUCK 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:	YES	NO	N/A
PRO 1 2 3 4 5 5 6 7 8 9 10 NOT	CESS/USE OF LIFT TRUCK 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:	YES		N/A
PRO 1 2 3 4 5 5 6 7 8 9 10 NOT	CESS/USE OF LIFT TRUCK 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: ES:	YES	NO	N/A

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Aerial Lift and Elevating Work Platform Safety Pr						m
Fo	orm 5A: Scissors P	atform Lift Pre-op	eration Inspection		400	2
Lift	MFG:					
Dat	e:	Start Time AM / PM (circle one)	Fall Protection is not required when operating this Lift, but is highly recommended.	V		
Inst See	tructions: Operator must ch the reverse side of this pag	eck off each item as having be e and complete the Work Site	en checked 'OK' and safe to use during daily Evaluation for every new location.	inspection	prior to o	peration.
KE	Y OFF PROCEDURES			PASS	FAIL	N/A
1	Check that the operator's n manual and is aware of its l	nanual, decals are in place and imitations	l legible, and the operator has reviewed the			
2	Check Hydraulic cylinders/L	ifting mechanism/Fluid level				
3	Check welds, pins, missing r	nuts or bolts and other structu	ral parts for cracks or defects			
4	Check outriggers, outrigger	limiting switches, and locking	pins			
5	Check platform entry mid-r	ail/gate, and platform or bask	et housekeeping			
6	Examine the battery & fire e	extinguisher				
7	Check battery level to assur	e that the unit can operate th	e duration of the job			
8	Operator is responsible for worn and attached properly	inspecting all fall protection and	nd insure that all fall protection is being			
9	Tires/Rollers/Monitor tire a Rearpsi, Left Rear	ir pressure if pneumatic(Fron ɔsi)	nt Rightpsi, Front Leftpsi, Right			
10						
KE	Y ON PROCEDURES			PASS	FAIL	N/A
1	Check all ground controls fo these could save your life)	or proper operation, including	emergency lowering means (remember,			
2	Check all basket controls, fo	oot switch, horn for proper op	eration			
3	Battery discharge indicator,	Hour meter				
4	Steering and drive system					
5	Check limit switches, alarma raising/swing/extending bo	arms, and flashing beacon if equipped (operating the lift by g booms, tilt/rotate the basket)				
6						
7	Starting Hour Meter Readin Hours	g:	Operator's Name: (Printed / Signatur	e)		
CC	MMENTS/NOTES:					

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Aerial Lift and Elevating Work Platform Hazard Assessment

Form 5B: Scissors Platform Lift Site Hazard Assessment

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
1	Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
2	Are surface conditions where the lift is used free of obstructions and on level surface?			
3	Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
4	Are there overhead obstructions or restricted places where the lift will be operated?			
5	Will the basket handle the loads to be carried without exceeding the rated capacity?			
6	Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
7	Will the lift be used for electrical work or near high voltage lines?			
8	Are there 'Classified Hazardous' locations where the vehicle will be operated?			
9	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?			
10	Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer's rated design allowance?			
11	List below other potentially hazardous site-conditions that could affect safe operation:			
12				
PRO	CESS/USE OF LIFT TRUCK	YES	NO	N/A
1	Has the proper Lift been chosen for the type of work being conducted?			
2	Does the Lift have the proper lift height and capacity for the job?			
3	Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
4	Is the basket free of trip hazards and proper housekeeping maintained?			
5	Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian-aisles, doorways, footpaths, or electrical panels.)			
6	Is the fueling and/or charging area well ventilated?			
7	Is there proper lighting in the areas the Lift is being used?			
8	Are Propane bottles being kept in a secure area, and are they tagged 'Full' or 'Empty'?			
9	List below other potentially hazardous process-conditions that could affect safe operation:			
NOT	ES:			
Oneret	tor/Evaluators (Drint / Signature)			
UDeral	Date evaluated:			

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7	CAL MARITIME Aerial Lift and Elevating Work Platform Safety Program							
Fo	rm 6A: Trailer Mo	unted Aerial Lift Pro	e-operatio	n Inspection		1		
Lift	ift MFG: Model: Serial #:							
Dat	Date: Start Time AM / PM (circle one) WEAR FALL PROTECTION WHEN							
Inst	ructions: Operator must che	eck off each item as having beer	n checked 'OK' an	nd safe to use during daily i	nspection pr	ior to op	eration.	
KE	Y OFF PROCEDURES		valuation for eve		PASS	FAIL	N/A	
1	Check that the operator's m manual and is aware of its li	nanual, decals are in place and le mitations	egible, and the o	perator has reviewed the				
2	Check Hydraulic cylinders/Li	fting mechanism/Fluid level						
3	Check welds, pins, missing n	outs or bolts and other structura	I parts for cracks	s or defects				
4	Check outriggers, outrigger	limiting switches, and locking pi	ns					
5	Check platform entry mid-ra	ail/gate, and platform or basket	housekeeping					
6	Examine the battery & fire e	extinguisher						
7	Check battery level to assur	e that the unit can operate the o	duration of the j	ob				
8	Operator is responsible for i and attached properly	nspecting all fall protection and	l insure that all fa	all protection is being worn				
9	Tires/Rollers/Monitor tire ai psi, Left Rearp	ir pressure if pneumatic(Front I osi)	Rightpsi,	Front Left _psi, Right Re	er			
10								
KE	Y ON PROCEDURES				PASS	FAIL	N/A	
1	Check all ground controls fo could save your life)	r proper operation, including er	mergency loweri	ng means (remember, these	5			
2	Check all basket controls, fo	ot switch, horn for proper opera	ation					
3	Battery discharge indicator,	Hour meter						
4	Steering and drive system	ve system						
5	Check limit switches, alarms, and flashing beacon if equipped (operating the lift by raising/swing/extending booms, tilt/rotate the basket)							
6								
7	Starting Hour Meter Readin Hours	g:	Operator's	Name: (Printed / Signature)				
CO	MMENTS/NOTES:							

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Aerial Lift and Elevating Work Platform Hazard Assessment

Form 6B: Trailer Mounted Aerial Lift Site Hazard Assessment

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	E EVALUATION	YE	s no	N/A
1	Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
2	Are surface conditions where the lift is used free of obstructions and on level surface?			
3	Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
4	Are there overhead obstructions or restricted places where the lift will be operated?			
5	Will the basket handle the loads to be carried without exceeding the rated capacity?			
6	Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
7	Will the lift be used for electrical work or near high voltage lines?			
8	Are there 'Classified Hazardous' locations where the vehicle will be operated?			
9	Is there an enclosed environment(s) or other areas where insufficient ventilation or poor vehic maintenance could cause a build-up of carbon monoxide or diesel exhaust buildup for combus or hydrogen gas buildup at electric vehicle recharging stations?	cle stion motors,		
10	Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer's rated design allowance?			
11	List below other potentially hazardous site-conditions that could affect safe operation:			
PRO	DCESS/USE OF LIFT TRUCK	YE	S NO	N/A
1	Has the proper Lift been chosen for the type of work being conducted?			
2	Does the Lift have the proper lift height and capacity for the job?			
3	Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
4	Is the basket free of trip hazards and proper housekeeping maintained?			
5	Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, ped aisles, doorways, footpaths, or electrical panels.)	estrian-		
6	Is the fueling and/or charging area well ventilated?			
7	Is there proper lighting in the areas the Lift is being used?			
8	Are Propane bottles being kept in a secure area, and are they tagged 'Full' or 'Empty'?			
9	List below other potentially hazardous process-conditions that could affect safe operation:			
ΝΟΤ	TES:			
Operator/Evaluator: (Print / Signature) Date evaluated:				
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T	CAL MARITIME Aerial Lift and Elevating Work Platform Safety Program							
Fo Lift	t MFG: Model: Serial #:							
Dat	e:	90						
Inst See	tructions: Operator must ch the reverse side of this pag	eck off each item as having been c ge and complete the Work Site Eva	hecked 'OK' and safe to use during daily i luation for every new location.	nspection p	rior to op	eration.		
KE	Y OFF PROCEDURES			PASS	FAIL	N/A		
1	Check that the operator's n manual and is aware of its l	nanual, decals are in place and legi limitations	ble, and the operator has reviewed the					
2	Check Hydraulic cylinders/L	ifting mechanism/Fluid level						
3	Check welds, pins, missing i	nuts or bolts and other structural p	arts for cracks or defects					
4	Check outriggers, outrigger	limiting switches, and locking pins						
5	Check platform entry mid-r	ail/gate, and bucket or basket hou	sekeeping					
6	Examine the battery & fire of	extinguisher						
7	Check battery level to assur	re that the unit can operate the du	ration of the job					
8	Operator is responsible for and attached properly	inspecting all fall protection and in	sure that all fall protection is being worn					
9	Monitor tire air pressure (Front Rightpsi, Fron	t Leftpsi, Right Rearpsi, Lef	t Rearpsi)					
10	Check lights, reflectors, par	king brake						
KE	Y ON PROCEDURES			PASS	FAIL	N/A		
1	Check all ground controls for these could save your life)	or proper operation, including eme	rgency lowering means (remember,					
2	Check all basket controls, fo	oot switch, horn for proper operation	on					
3	Battery discharge indicator	, Hour meter						
4	Check limit switches, alarm	s, and flashing beacon if equipped	(operating the lift by					
5	Check outriggers, leveling jacks and foot pads							
6								
7	Starting Hour Meter Readir Hours	ng:	Operator's Name: (Printed / Signature)					
CC	MMENTS/NOTES:		·					

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Aerial Lift and Elevating Work Platform Hazard Assessment

Form 7B: Vehicle Mounted Lift Site Hazard Assessment



Type of Work to be conducted:



SITE	EVALUATION	YES	NO	N/A		
1	Is the work surface structurally strong enough to handle the lift, and free of drop-offs?					
2	Are surface conditions where the lift is used free of obstructions and on level surface?			1		
3	Are there proper barricades to control pedestrian and vehicle traffic in work zone?					
4	Are there overhead obstructions or restricted places where the lift will be operated?					
5	Will the basket handle the loads to be carried without exceeding the rated capacity?					
6	Are there ramps and other sloped surfaces that could affect the vehicle's stability?					
7	Will the lift be used for electrical work or near high voltage lines?					
8	Are there 'Classified Hazardous' locations where the vehicle will be operated?					
9	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?					
10	Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer's rated design allowance?					
11	List below other potentially hazardous site-conditions that could affect safe operation:					
12						
PRO	CESS/USE OF LIFT TRUCK	YES	NO	N/A		
1	Has the proper Lift been chosen for the type of work being conducted?					
2	Does the Lift have the proper lift height and capacity for the job?					
3	Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?					
1	Is the basket free of trip hazards and proper housekeeping maintained?					
5	Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian-aisles, doorways, footpaths, or electrical panels.)					
6	Is the fueling and/or charging area well ventilated?					
7	Is there proper lighting in the areas the Lift is being used?					
3	Are Propane bottles being kept in a secure area, and are they tagged 'Full' or 'Empty'?					
9	List below other potentially hazardous process-conditions that could affect safe operation:					
ΝΟΤ	TES:					
Opera	tor/Evaluator: (Print / Signature) Date evaluated			-		
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T	CAL MARITIME	CAL MARITIME Aerial Lift and Elevating Work Platform Safety Program						
Fo	rm A: General Lift	Pre-operation Inspec	tion					
Lift	MFG:	Model:	Serial #:					
Dat	e:	Start Time AM / PM (circle one)		WEAR FALL PROTECTION WHEN				
Inst See	nstructions: Operator must check off each item as having been checked 'OK' and safe to use during daily inspection prior to operation.							
KE	KEY OFE PROCEDURES					N/A		
1	Check that the operator's n manual and is aware of its l	nanual, decals are in place and legib imitations	le, and the	operator has reviewed the				
2	Check Hydraulic cylinders/L	ifting mechanism/Fluid level						
3	Check welds, pins, missing r	nuts or bolts and other structural pa	arts for crac	ks or defects				
4	Check outriggers, outrigger	limiting switches, and locking pins						
5	Check platform entry mid-ra	ail/gate, and bucket or basket hous	ekeeping					
6	Examine the battery & fire e	extinguisher						
7	Check battery level to assur	re that the unit can operate the dur	ation of the	job				
8	Operator is responsible for worn and attached properly	fall protection is being						
9	Monitor tire air pressure (Front Rightpsi, Front	t Leftpsi, Right Rearpsi, Left	Rearps	i)				
10	Check lights, reflectors, par	king brake						
KE	Y ON PROCEDURES				PASS	FAIL	N/A	
1	Check all ground controls for proper operation, including emergency lowering means (remember, these could save your life)							
2	Check all basket controls, fo	oot switch, horn for proper operatio	n					
3	Battery discharge indicator,	, Hour meter						
4	Check limit switches, alarms	s, and flashing beacon if equipped (operating tl	ne lift by				
5	Check outriggers, leveling jacks and foot pads							
6								
7	Starting Hour Meter Readin Hours	ıg:	Operator's	Name: (Printed / Signature)			
CC	MMENTS/NOTES:							

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Aerial Lift and Elevating Work Platform Hazard Assessment

Form B: General Lift Site Hazard Assessment

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
1	Is the work surface structurally strong enough to handle the lift, and free of drop-offs?			
2	Are surface conditions where the lift is used free of obstructions and on level surface?			
3	Are there proper barricades to control pedestrian and vehicle traffic in work zone?			
4	Are there overhead obstructions or restricted places where the lift will be operated?			
5	Will the basket handle the loads to be carried without exceeding the rated capacity?			
6	Are there ramps and other sloped surfaces that could affect the vehicle's stability?			
7	Will the lift be used for electrical work or near high voltage lines?			
8	Are there 'Classified Hazardous' locations where the vehicle will be operated?			
9	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?			
10	Is wind or other weather a concern? Are there sustained winds or gusts stronger than the manufacturer's rated design allowance?			
11	List below other potentially hazardous site-conditions that could affect safe operation:			•
12				
PRO	CESS/USE OF LIFT TRUCK	YES	NO	N/A
1	Has the proper Lift been chosen for the type of work being conducted?			
2	Does the Lift have the proper lift height and capacity for the job?			
3	Are proper PPE (hardhats, etc.) and full body harnesses w/lanyards available and used?			
4	Is the basket free of trip hazards and proper housekeeping maintained?			
5	Are there designated parking areas for Lift(s)? (Clear of exits, fire extinguishers, hydrants, pedestrian- aisles, doorways, footpaths, or electrical panels.)			
6	Is the fueling and/or charging area well ventilated?			
7	Is there proper lighting in the areas the Lift is being used?			
8	Are Propane bottles being kept in a secure area, and are they tagged 'Full' or 'Empty'?			
9	List below other potentially hazardous process-conditions that could affect safe operation:			•
NOT	TES:			
Opera	tor/Evaluator: (Print / Signature) Date evaluated:			

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Appendix C: Equipment Inspection Form SAMPLES





Labels and Color Coding

SAFETY ASSURED INSPECTION CODING

MONTH	MONTH TESTED	COLOR OF TAPE(S) TO APPLY TO CORD			
1	January	White			
2	February	White +	Yellow		
3	March	White +	Blue		
4	April	Green			
5	May	Green +	Yellow		
6	June	Green +	Blue		
7	July	Red			
8	August	Red +	Yellow		
9	September	Red +	Blue		
10	October	Orange			
11	November	Orange +	Yellow		
12	December	Orange +	Blue		
Repair/Damaged		Brown			

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Appendix D: Lift Equipment Inventory

Lift Equipment Inventory

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 Cal Maritime 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

	MGFR	Туре	Power	Nameplate	Max. Lift	Location	PPE/Uses
			Source	Data	Capacity		
EX	Example: Genie	Scissor Lift	Electric/AC-DC	Model ZH1 S/N 456JV12X798	Platform 600 lbs.	Oxford Track Garage	Full Body Harness w/Lanyard General warehouse, building maintenance
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

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Appendix E: Licensed Operators List

Licensed Operators List

Instructions: An Operator Roster of Industrial Lift Equipment owned/operated by each department is maintained to identify all personnel enrolled in this program. At Cal Maritime 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.

	Operator Name	Department	Equipment Type	License #	PPE/Uses
EX	Jim Liftsalot	Facilities	Genie Scissor Lift #GL8462LW, Genie Elevating Work Platform #GL50309TL	Horticulture OL - 0234 Issued 5/16/09 – 5/15/12	Full Body Harness w/Lanyard General Greenhouse/warehouse use, Building maintenance.
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

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Appendix F: Job Hazard Analysis Library

Document #	Document Title	Date	Comments
09-03001-001	Job Hazard Analysis Manual- Hand & Power Tools	TBD	New Document
09-03001-002			
09-03001-003			
09-03001-004			
09-03001-005			
09-03001-006			
09-03001-007			
09-03001-008			
09-03001-009			
09-03001-010			
09-03001-011			
09-03001-012			
09-03001-013			
09-03001-014			
09-03001-015			
09-03001-016			
09-03001-017			
09-03001-018			
09-03001-019			
09-03001-020			
09-03001-021			
09-03001-022			
09-03001-023			
09-03001-024			
09-03001-025			
09-03001-026			
09-03001-027			
09-03001-028			
09-03001-029			
09-03001-030			
09-03001-031			
09-03001-032			
09-03001-033			
09-03001-034			
09-03001-035			
09-03001-036			
09-03001-037			
09-03001-038			
09-03001-039			
09-03001-040			
09-03001-041			
09-03001-042			
09-03001-043			
09-03001-044			
09-03001-045			
09-03001-046			
09-03001-047			
09-03001-048			
09-03001-049			
09-03001-050			

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Appendix G: Emergency Response

To download and/or print poster refer to SRM website: Campus Emergency Poster, Campus Emergency Response Guide



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Appendix H: Accident Incident Management

To download and/or print poster refer to SRM website: Accident Incident Management Poster



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Appendix I: Training Log

e.	TR		NG SIGI	n in s	HEET
Sul	oject			Date	
Ins	tructor Name			·	
De	partment				
C οι	ırse Level	Awareness	Competent Person	Certified Person	Other
Fre	quency	Initial	Annual-Refresher	Process Change	Post Incident
	The attendees liste	d have satisfactorily pa	rticipated and been tested per STATUS	Regulation/University train	ing requirements.
	PRINT	ΓΝΑΜΕ	(Staff, Faculty, Student)	SIGNA	TURE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Retain Original at Department Level & Submit Copy to Risk Management

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Cal Maritime		Document # 09-04002	