## **Exhibit M. Aerial Lift (MEWP) Program**

#### **AERIAL LIFT - SOP**

## Purpose

To prevent South Valley employees from being injured while operating an aerial lift.

### Scope

For properly trained employees to perform overhead work safely.

#### **Prerequisites**

Workers operating aerial lifts must receive specific training for the make and model of the aerial lift they will be operating.

Training must be documented with a certification card which must be in workers possession at all times while operating an aerial lift.

#### Hazard Assessment

Tip over and Collapse

- Never exceed the manufacturer's specified maximum load (which includes the weight of the person and all tools/supplies/equipment, etc. that will be on the platform).
- Do not operate on surfaces that exceed the manufacturer's maximum slope.
- Always use wheel chocks and brakes when operating on any slope.
- Set up on a firm surface, well away from drop-offs.
- When navigating a lift that is designed to move with the platform extended:
  - Avoid debris, bumps, depressions, or potholes.
  - Do not drive over floor grates or covers.
  - Never exceed the manufacturer's maximum speed recommendations.
  - Know the type and proper usage of stabilizing mechanisms used on the lifts that you operate. Do not attempt to move or adjust stabilizing mechanisms while the platform is raised.
  - O Never position or tie off the lift or platform against a wall, structure, or other surface.
  - o Maintain the intended center of gravity by evenly dispersing loads on the platform.
  - Never attempt to increase the surface area of the platform with planks, boards, or other devices.
  - Do not let materials extend over the edge of the platform.
  - o Do not hang tools or equipment off the sides or rails of the platform.
  - Exercise care when raising and lowering the platform to avoid entangling ropes, cords, etc. in the machine.
  - Avoid horizontal forces from work tasks that could cause the platform to sway and become unstable. This includes pushing off or pulling toward any surface, structure, or object outside of the platform.
  - Do not operate an aerial lift outdoors during windy conditions or other inclement weather.
  - Never climb on the mast or use ladders or scaffolds on any part of the machine.
  - Enter and exit the platform only through the intended access point/gate.

## Falls

- A full-body harness personal fall arrest systems must be used when operating all boom type lifts. The PFAS must be inspected on a daily basis by the individual wearing it (see Inspection checklist).
- A fall restraint such as Self-Retracting-Life Line (SRL) must be used at all times.
- The fall restraint must be attached to the proper anchor point on the basket.
- Restrict materials and equipment on the platform to that which can be safely handled by one person.
- Keep both feet firmly on the floor of the platform. Do not attempt to gain additional reach by standing on boxes, planks, or other objects.
- Do not lean on or over the rails. Do not sit, stand, or climb on the guardrails.
- Keep your shoes clean and ensure that they have a good, anti-slip tread.
- Keep the platform clean and free of debris. Position equipment so that the weight is evenly distributed and in a manner that does not create a trip hazard.
- Enter and exit the platform only when it is fully lowered.
- If a platform or elevating assembly becomes caught, snagged, or otherwise prevented from normal motion by adjacent structures or other obstacles such that control reversal does not free the platform, all personnel must be removed from the platform before attempts are made to



free the platform using ground controls.

## Collision

Collision hazards can exist both overhead and on the ground. To avoid collision hazards:

- Look below before lowering a platform to verify that persons or objects are not present.
- Give warning of your intent to descend (audible alarm, voice commands, etc.). If working as a team, verbally verify clearance of your teammate(s) on the ground before lowering.
- Avoid setting-up in high traffic areas. If absolutely necessary, attempt to conduct work at low-traffic times or work with appropriate personnel to temporarily interrupt traffic during the time that the lift is in use.
- Place warning barricades at a safe perimeter around the lift to detour both pedestrian and vehicular traffic.
- Be aware of the swing range. Set-up in a manner that avoids objects within the range of motion of the machine.
- When moving a lift, use extreme caution and slow and deliberate motions, particularly when space is limited, traffic is high, surface conditions are potentially hazardous (slippery, pot-holes, etc.), or the route contains corners, blind spots, and other visual obstructions.
- All aerial lifts must have a working back-up alarm or a spotter when backing up.

#### Electrocution

OSHA standards specify minimum safe distances that are to be maintained while working in an aerial lift, as indicated in the table below. If these distances cannot be achieved, do NOT use the equipment.

Voltage (nominal, kV, alternating current)	Minimum clearance distance (feet)
up to 50	10
over 50 to 200	15
over 200 to 350	20
over 350 to 500	25
over 500 to 750	35
over 750 to 1,000	45
over 1,000	(as established by the utility owner/operator or registered professional engineer who is a qualified person with respect to electrical power transmission and distribution).

- Personnel on the ground are prohibited from operating the ground controls when an aerial lift is in contact with a live electrical source until such time as the electrical source is de-energized.
- If welding while on an aerial lift, do NOT use the platform or any part of the machine for grounding. Adhere to hot work permit requirements.
- If using electrified tools while on an aerial lift, use only tools that are double insulated or have a grounding plug.
- If using an electromechanical model lift, ensure that the proper gauge of extension cord wire is used and that it is in good condition and equipped with a grounding plug.
- Do not operate the machine outdoors if there is threat of lightening.

### Caught-in-between hazards

To avoid injury from pinch/shear points:

- Keep hands, arms, and other body parts within the confines of the platform and guard rail while working on the platform. Keep hands and fingers away from moving parts while on the ground.
- Avoid loose clothing that could become caught in chains, pulleys, lifts, etc. Keep long hair confined.
- Always ensure that the machine is de-energized before conducting maintenance and repairs.
- Always ensure the back-up alarm is working or a spotter is used when backing up a lift.

## Improper Use

- Remove the key or otherwise secure a lift while it is being stored so that it is not available to unauthorized persons.
- Do not allow anyone to operate a lift until they have completed instructional and hands-on training and they have demonstrated competency in the operation of the specific lift they are expected to use.
- Refrain from horseplay.
- Use an aerial lift only for the purposes and in the manner specified by the manufacturer.
- Never use an aerial lift as a crane.



## Hazardous Atmosphere

- Under no circumstances should a lift be operated in a hazardous location (contains, or has the potential to contain, an explosive or flammable atmosphere).
- SVC does not typically have work sites that contain flammable vapors/dusts/fibers, it is important to recognize that an anomalous condition could present such a hazard (e.g., leak/ruptured drum or tank for gasoline or other solvent, etc.) and this would negate the use of an aerial lift.
- Aerial lifts can create sparks that could ignite flammable vapors, fibers, or dusts that may be in the atmosphere.
- To avoid creating a hazardous atmosphere:
  - Use electric powered units in confined areas.
  - Install carbon monoxide detectors in use areas.
  - o Adhere to maintenance schedules to ensure efficient fuel combustion
  - Remove a lift from service that does not appear to be operating normally (e.g., excessive smoke)
  - Clean up spills and leaks of fluids
    - Know the symptoms of exposure to carbon monoxide.
      - Carbon monoxide is colorless and odorless- you can't easily detect overexposure through your ordinary senses.
      - Symptoms include but are not limited to:
        - Shortness of breath, nausea, headache, or light-headedness at low to moderate concentrations.
        - o Prolonged or high exposures can lead to death.
        - If you suspect overexposure, seek fresh air. As needed, seek medical attention.

## Defective Machine

- Before an aerial lift can be used safely it must be in safe condition.
- Perform a pre-use inspection:
  - Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition.
  - Detect defects or damage that could impair the functioning of the machine or the operator's familiarity with the controls.
  - o If a defect is detected during the pre-use inspection, the machine must be clearly tagged out of service until it is repaired.
  - o Report all such circumstances to your supervisor in a timely manner.
  - No modifications to the equipment shall be made without written approval from the manufacturer.

## **Procedures**

## Selecting the Right Aerial Lift

The SV team must consider six factors:

- Inside vs. outside tasks;
- Transport clearances to the job, including doorways;
- Surface conditions,
  - o Paved or unpaved.
  - o Terrain is level or sloped or even or rough.
  - o If obstacles are present.
- Elevation and reach to the worksite.
- Personnel, tools, utilities.
- Storage space for the lift.

## Rescue Plan

Develop a plan for emergency response procedures and fall rescue for project job site:

- Before on-site work begins, inform emergency responders of any conditions at the site that may hinder a rescue effort.
- Document rescue procedures and post at the worksite; inform employees of locations.
- Post emergency responder phone numbers and addresses at the site.
- Ensure that responders have quick access to rescue and retrieval equipment, such as lower controls, lifts, and ladders.

## Prestart Inspections/Checks

- Be sure batteries are fully charged.
- Ensure battery charger plug is disconnected.
- All grease fittings should be greased.



- Check for any obstacles around the work platform and in the path of travel, such as holes, dropoffs, debris, ditches, soft fill, etc.
- Be sure that the free-wheeling and emergency-lowering valves are closed.
- Check overhead clearance.
- Check the controls and auxiliary controls are operable.
- Record prestart check information in the provided daily-use log designed for this purpose.

## Safe Operations

- A personal fall arrest or travel restraint system shall be worn and attached to the boom or basket when working from an aerial lift and must be attached to the proper anchor point on the basket. Employees are prohibited from attaching to adjacent poles or structures.
- The platform is to be used on hard, level surfaces only.
- Never overload the maximum intended load.
- Do not use within 10 feet of overhead power lines.
- Do not use without railings or entrance chains.
- Never use if the work platform is not operating properly.
- All work must be done on the platform only.
- All units must be equipped with a back up alarm and operational.
- The platform must not be moved when elevated.
- Boom and basket load limits specified by the manufacturer shall not be exceeded.

#### Shutdown

- Completely lower the platform.
- Remove key from operator's control box.
- Check battery water level and place batteries on charge, if needed.

## Roles & Responsibilities

## Project Team

- Ensure that the inspection documentation is available with the aerial lift.
- Perform inspection of rental equipment upon arrival to the project site.
- Ensure pre-task planning is properly complete.
- Ensure that equipment inspections are performed daily before work starts for the day.
- Ensure employees are provided with and use appropriate PPE.
- Ensure that all employees have been trained in the use and inspection methods for aerial lifts in accordance to the manufacturers' guidelines.
- Ensure that all employees are aware that if an inspection discovers a defect, the aerial lift cannot be used until repairs are made.

## Employee

- Follow operating and maintenance manuals and this Plan.
- Inspect and document the inspection of aerial lifts daily prior to use.
- Report any damages or repairs that may be needed to their supervisor.
- Attend and follow all required training.

### Training

Only trained and authorized persons shall operate an aerial lift.

## Training shall include:

- The nature of electrical hazards and maximum load carrying capacity of the machine.
- Proper use of personal protective equipment including but not limited to Personal Fall Arrest System (PFAS).
- Other potential hazards in the area of operation.
- Proper demonstration of operations of an aerial lift.
- Additional training when changes at the work site presents hazards not previously trained for.
- Re-training when the employer has reason to believe an employee lacks skill or knowledge.

## **Monitoring Requirements**

Inspection of Aerial Lifts must be completed:

- Annually by owner of lift
- Upon delivery by rental company
- Daily by operator.

### **Record Management**



Training Certifications to be logged and retained by the Safety Coordinator or their designee.

# **Employee Acknowledgment**

the exhibit and any revisions made to it. I understand that	derstand that it is my responsibility to read and comply with this exhibit is not all inclusive and agree to follow all Federal, alley jobsites. I also understand that failure to abide by exhibit
Employee Signature	Date
Employee Name (Print)	