

AERIAL LIFT POLICY



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1. INTRODUCTION

- a. This policy outlines **H2 Enterprises, LLC (H2)** procedures for safe operation and proper maintenance of aerial lift devices operated by **H2** employees. It applies to all operations and programs which require employees to access elevated locations and/or use aerial work platforms; building maintenance and inspection, filter and lighting removal and replacement, dust removal and other elevated work.

2. DEFINITIONS

- a. **Aerial Lift** - A piece of equipment, extendible and/or articulating, designed to position personnel and/or materials in elevated locations.
- b. **ANSI** - American National Standards Institute
- c. **Lanyard** - ANSI approved line designed for supporting one person, with one end fastened to a safety belt or full body harness, and the other end secured to a safety line or structural member. Lanyards shall not exceed 6' in length, and include a 'shock-absorber' to attenuate fall impact.
- d. **OSHA** – Occupational Safety & Health Administration
- e. **Body Harness or Harness** - ANSI approved body device designed for fall protection, which because of its attachment to a lanyard and safety line or structure will limit a fall to 6' or less. A full body harness is the preferred device for fall protection in aerial lift devices. Because aerial lifts have passive fall protection systems, the intent of the harness is to keep the occupant(s) in the bucket if there is a catapult effect placed upon it, not to attenuate a fall from it.

3. FALL PROTECTION EQUIPMENT

- a. Full body harnesses and lanyards shall only be used as intended by the manufacturer for employee fall protection. Appropriate devices shall be used to provide 100% fall protection. Only manufacturer designated anchorage points shall be used for the attachment of fall protection equipment. The 'D' ring shall be in the middle of the back to minimize impact on the body in a fall.
- b. All fall protection equipment shall be carefully inspected before each use and periodically throughout the day. Safety equipment showing any sign of mildew, torn or frayed fiber or fabric, burns, excessive wear, or other damage or deterioration which could cause failure shall be permanently removed from use. Harnesses, lanyards, safety lines, and all other fall protection equipment shall be properly maintained and stored---kept dry and out of sunlight, and away from caustics, corrosives or other materials which could cause defect.

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- c. Hard hats, harnesses and lanyards shall be worn and used by employees in the bucket or on the platform of any aerial lift device while in operation. Loose- fitting clothing shall not be worn while working in any aerial lift device.

4. AERIAL LIFT EQUIPMENT

- a. Aerial lift devices shall conform to ANSI Standards for a self-propelled personnel lift. Aerial lift devices shall only be used for the purpose(s) intended by the manufacturer. All manufacturer recommendations and warnings regarding operation, capacity, and safety precautions shall be strictly followed. Permanent labeling must be conspicuously posted to indicate lifting capacity and travel height.
- b. Only devices approved for lifting personnel shall be used as aerial lifts. Loaders, fork lifts, or other material lift devices shall not be used to transport employees to elevated locations nor as work platforms.
- c. Maintenance inspections of aerial lifts shall be made periodically by Equipment Management. Modification shall not be made to any aerial lift device without written approval of the manufacturer through the Equipment Management Division. Buckets and bucket liners shall not be cut or drilled.

5. OPERATING PROCEDURES

- a. Lift equipment shall be inspected and controls tested daily before use. Only properly trained employees with a certification card shall operate the lift. Ground controls shall not be operated without the permission of the employee(s) 'in the air', except in emergencies.
- b. Sufficient overhead clearance shall be checked before raising any aerial lift. Employees shall keep both feet on the bucket floor while the bucket is moving, or work is being performed.
- c. Employees shall not attach themselves to an adjacent pole or structure while working from the bucket, but shall remain connected by safety harness and lanyard to the boom, boom eyelet, or boom strap and 'D' ring. When the work requires an employee to leave the bucket to gain access to a work location (i.e. roof or other structure) the employee shall maintain 100% fall protection by connection of a lanyard to a safety line or structure capable of supporting the employee(s). Employees exiting buckets more than 6 feet above a lower surface requires 100% fall protection and user shall wear a full body harness, and a "Y" lanyard.
- d. Platform lifts shall have a top and mid rail and toe board/kick plate, and a means for each person to attach a safety belt or full body harness and lanyard to the platform. A harness and lanyard shall be used by each employee on the platform. Employees shall keep both feet on the floor of the platform; shall not sit or climb on the railing; or use

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planks, ladders, or other devices to raise the working height. The gate shall be closed before raising the work platform. Tools, parts or any materials shall not be dropped or thrown from the bucket. When using welding or heating equipment from the bucket or platform, the vehicle shall be protected from sparks or slag and special care taken to protect or remove flammables.

- e. Equipment will have a working back-up alarm or use a spotter when backing.

6. ELECTRICAL SAFETY

- a. Always assume that lines are 'live' and carry high voltage. Electrical lines can only be considered 'dead' when verified by the utility.
- b. **H2** operations shall conform to the High Voltage Proximity Act, which applies to electrical systems carrying 600 volts or more and requires employers to:
 - i. Ensure employees are not placed in proximity to high voltage (within 10 feet up to 50 kilovolts).
 - ii. Inform employees of the hazards and precautions of working near high voltage.
 - iii. Post warning decals on equipment regarding 10-foot minimum clearance.
 - iv. Ensure that when an equipment operator is unable to assess clearances a 'spotter' observes for clearance and directs the operator.
 - v. Notify the utility at least 5 working days before any work begins which requires the utility to identify voltages and clearances, or de-energize, insulate or relocate lines.
- c. As voltages increase, minimum clearances increase and potential for arcing increases. Injuries or fatalities may occur even if contact is not made. Weather and contact with conductors such as tools can increase the possibility of arcing. Because Department employees are not qualified to determine voltage, the utility shall be called to establish voltages and minimum clearances, and to render the work safe. Where prior notification cannot be made, request the utility to respond immediately.
- d. When using the aerial lift in the **H2** fabrication shops the cranes shall be locked and tagged out of service. Barricades and signs shall be used below overhead work under the platforms to bring awareness to the fact of overhead work being performed and to prevent other employees from entering the hazard zone beneath the platform.
- e. Prior to the start of an operation where contact with energized electrical systems is possible, supervisors shall identify energized lines or equipment, and reference their location. Their location shall be discussed at a pre-work safety meeting of all crew members. All new employees shall be similarly informed.

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7. AWARENESS & TRAINING

- a. Supervisors responsible for operations which require using any type of aerial lift device shall ensure that employees involved in such operations are aware of this document and receive initial and periodic refresher training from the H2 HSE Department in accordance with current American National Standards Institute requirements A92.2-1990 for 'Vehicle Mounted Elevating and Rotating Aerial Devices'. Employees will receive training, a field use evaluation and a knowledge test prior to issuance of a certification card. Crews shall conduct brief daily tailgate safety meetings to review special job features, traffic considerations, and appropriate safety precautions.

<u>Safety Hazards</u>	<u>Hazard Elimination</u>
Pinch points for hands/head	Wear a hard hat at all times when operating, be aware of hands on rail and clearances
Overhead clearance issues	Look up when operating or use spotter
Electrocution	Never get within 10 feet of electrical lines or turn off power
Tipping over/Potholes	Drive slowly or go around
Tipping over/Slopes	Drive slowly or go around, don't use on slopes greater than 4.5°
Areas underneath the boom that could be damaged	Use a spotter
Inadvertent crane operation inside buildings	Lockout cranes prior to boom lift use and coordinate work with others in area
Overloading the platform	Platform capacity is 500 pounds, including personnel and all tools/equipment
Falling out of / off platform/bucket	Don't stand on rails, use fall protection (harness & lanyard)
Personnel beneath the platform when descending	Use spotter and tape off area beneath the platform when performing work
Overloading platform, dropping equipment/material	Do not use as a crane
High winds causing tip over	Do not use in high winds
Being ejected from platform in air and falling	Use fall protection and tie off to anchorage inside basket, do not tie off outside of basket
Dropping equipment and tools on people below	Tape off area beneath the platform to prevent people from passing underneath area