Aerial Lifts

PURPOSE

The purpose of the Aerial Lift program is to ensure that all authorized personnel are familiarized with the general principle, operation, brands, capabilities, and operations required for "Aerial Lifts" as outlined by WAC 296-869-200. This applies to the following types of elevating work platforms: Extensible-boom work platforms; Articulating-boom work platforms; Vertical towers; Aerial ladders; A combination of any of those listed elevating work platforms. Aerial equipment may be made of metal, wood, fiberglass reinforced plastic (FRP), or other material; may be powered or manually operated; and are deemed to be aerial lifts whether or not they are capable of rotating about a substantially vertical axis.

DEFENITIONS

Aerial device: A vehicle-mounted device, telescoping or articulating, or both, which is used to position personnel.

Aerial ladder: A vehicle-mounted elevating work platform consisting of a single or multiple-section extensible ladder. It may or may not have a platform at the top.

Aerial Lift: An aerial device mounted on a vehicle such as a truck, trailer, or all-terrain vehicle.

Articulating-boom work platform: A vehicle-mounted elevated work platform with two or more hinged boom sections.

Elevating work platform: A device used to position personnel, along with their necessary tools and materials, at work locations. It includes a platform and an elevating assembly. It may be vehicle mounted or have an integral chassis for mobility and as a means of support.

Extensible-boom work platform: A vehicle-mounted elevating work platform with a telescopic or extensible boom.

Platform: The portion of an elevating work platform intended to be occupied by personnel. It may also be called a basket, bucket, stand, or similar term.

Rated capacity: The designed carrying capacity of the elevating work platform as specified by the manufacturer.

Vertical tower: A vehicle-mounted elevating work platform having a platform that can be raised along a vertical axis.

PROCEDURE

An effective Aerial Lift orientation/training course will be provided by Supervisory personnel prior to initial assignment and or use of specific Aerial Lift. Mandatory refresher training may be required due to unsafe operations, accidents, near misses, and or change in conditions.

The training program conducted by supervisory personnel will address the following:

1. **Design and Construction**: Make sure aerial lifts acquired for use on or after January 22, 1973 shall be designed and constructed in conformance with the applicable requirements of ANSI A92.2-1969, American National Standard for Vehicle-Mounted Elevating and Rotating Aerial Devices. Aerial lifts acquired before January 22, 1973 which do not meet the requirements of ANSI A92.2-1969, may not be used after January 1, 1976, unless they shall have been modified so as to conform with the applicable design and construction requirements of ANSI A92.2-1969. You must make sure aerial lifts manufactured on or after July 1, 2006, meet the design and construction requirements of ANSI A92.2-2001, American National Standard for Vehicle-Mounted Elevating and Rotating Aerial Devices. You must make sure aerial lifts manufactured before July 1, 2006, meet the design and construction requirements of ANSI A92.2-1969, American National Standard for Vehicle-Mounted Elevating and Rotating Work Platforms.

2. **Modifications:** You must have written approval from the manufacturer before making any modification or addition that affects the safe operation, stability, intended use, or the mechanical, hydraulic, or electrical integrity of the aerial lift. Make sure the modified aerial lift is: At least as safe as it was before being modified, any change to the insulated portion of the aerial lift doesn't reduce the insulating value, and modifications comply with the applicable design and construction provisions listed above.. If the original manufacturer is no longer in business, an equivalent entity such as a nationally recognized testing laboratory may approve modification.

3. **Owned, rented, or leased aerial lifts:** This section applies if you own, rent, or lease an aerial lift. You must meet the requirements of the Responsibilities of Owners, section 8, of ANSI A92.2-2001, American National Standard for Vehicle-Mounted Elevating and Rotating Aerial Devices, if you own an aerial lift. You must meet the requirements of the Responsibilities of Renters, Lessors or Lessees, section 11, of ANSI A92.2-2001, American National Standard for Vehicle-Mounted Elevating and Rotating Aerial Devices, if you rent or lease an aerial lift.

4. **Operator Requirements:** You must permit only trained and authorized personnel to operate any aerial lifts. Operator training will make sure personnel are trained before they are permitted to operate an aerial lift, general instruction on the inspection, application, and operation of aerial lifts, recognition and avoiding hazards associated with their operation, purpose and use of manuals (includes proper storage of manuals on the vehicle when not in use), prestart inspections, responsibilities associated with problems or malfunctions affecting the operation of the aerial lift, factors affecting stability, purpose of placards and decals, workplace survey, safety rules and regulations pertinent to the industry, authorization to operate an aerial lift, operator warnings and instructions, proper use of personal fall protection equipment, operator trainees will operate the aerial for enough time to demonstrate proficiency, retraining if needed. Instruct operators in all the following before they are directed to operate an aerial lift with which they aren't familiar, to include; location of the manuals, purpose and function of all controls, and safety devices and operating characteristics specific to the aerial lift.

5. **Operation Prestart Inspection:**
    - Operators must do a prestart inspection of the aerial device daily prior to use to determine that such controls are in safe working condition as listed below.
    - Have a qualified person examine or test any items found during the inspection that are thought to be unsafe to determine if they constitute a safety hazard.
    - Replace or repair all unsafe items before use.
    - **Prestart Inspection:** Operator will test the following and **record inspection.** Advanced Excavating Specialists employees are to record inspections using HCSS Field Application on iPads or smart phones. Five Rivers employees are to record inspections using paper forms as listed in the Equipment Maintenance Program.
        - Operating controls and associated mechanisms for conditions interfering with proper operation.
        - Visual and audible safety devices for malfunctions
        - Hydraulic or pneumatic systems for visible deterioration or excessive leaks.
        - Fiberglass and other insulating components for visible damage or contamination.
        - Operational and instructional marking that they are present and legible.
        - Electrical systems of or related to the aerial device for malfunction and for signs of excessive deterioration, dirt, and moisture accumulation.
        - Locking devices, brakes, bolts, pins, and other fasteners that they are in place and not loose or deformed.
    - **Workplace Survey:** operators must survey their work area, before using an aerial lift, for hazards such as:

- Untamped earth fills
- Ditches
- Drop-offs and floor obstructions
- Debris
- Overhead obstructions and electrical conductors
- Weather conditions
- Unauthorized persons in the area.

- **Before and during use:** Set the brakes and make sure outriggers, when used, are positioned on pads or a solid surface. Install wheel chocks when using the aerial lift on an incline if they can be installed safely.

- **Working from a platform:** Operators must
  - Make sure boon and platform load limits specified by the manufacturer aren't exceeded.
  - Make sure people stand firmly on the floor of the platform and do not sit or climb on the edge of the platform; or use guardrails, planks, ladders, or any other device to gain additional height or reach.
  - Prohibit the wearing of climbers when working from the platform.
  - Make sure all persons on the platform wear a full body harness/approved fall protection with a lanyard attached to either the manufacturers recommended attachment point or the boom platform if the manufacturer doesn't specify an attachment point. (Never attach a lanyard to an adjacent pole, structure, or equipment.)

- **Moving the aerial lift:**
  - Make sure the boom is properly cradled and the outriggers are in the stowed position before moving the aerial lift. (The aerial lift may be moved with the boom elevated and with personnel on the platform only if the equipment was specifically designed for this type of operation.)
  - Make sure the aerial lift has a reverse signal alarm audible above the surrounding noise level or the vehicle is backed up only when an observer signals that it is safe to do so.

- **Aerial Ladders:**
  - Secure aerial ladders in the lower traveling position, using the locking device or other means provided by the manufacturer, before moving it for highway travel.

- Make sure to maintain minimum clearance of 10 feet between power lines rated at 50kV or below with any part of the equipment or load.

- **Articulated Boom and Extensible Boom Platforms:** primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function. Lower-level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.