**CHAPTER 9**

**ELEVATING WORK PLATFORMS**

# References:

1. WAC Chapter 296-869 Elevating Work Platforms <https://app.leg.wa.gov/wac/default.aspx?cite=296-869>
2. WSU SPPM 3.34 Elevated Work Safety <https://policies.wsu.edu/prf/index/manuals/safety-policies-procedures-manual/sppm-3-34/>

# Scope.

This chapter applies to the following types of elevated work platforms:

* + Aerial lifts
	+ Manually propelled elevating work platforms that have a platform that can’t be positioned completely beyond the base
	+ Self-propelled elevating work platforms that have a platform that can’t be positioned completely beyond the base.
	+ Boom-supported elevated work platforms that have a boom-supported platform that can be positioned completely beyond the base.

# Purpose.

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This plan specifies the types of lifts covered by this chapter; establishes responsibilities; outlines requirements for lift operation and maintenance; and establishes training (and documentation) requirements to operate, repair, or modify lifts.

# Responsibilities

Supervisors

* Ensure all lifts used meet ANSI requirements (are ANSI certified);
* Ensure manufacturer’s instructions/manuals are available on the lift;
* Coordinate lift training for employees and ensure employees operating lifts are trained;
* Provide lift training documentation to the OHS program manager;
* Ensure employees operating lifts are provided required PPE; and,
* Require that employees conform to this chapter’s requirements.

Employees

* Attend lift training and demonstrate proficiency;
* Maintain and wear required PPE and notify their Supervisor when PPE requires replacement;
* Perform pre-start inspections and notify Supervisor of deficiencies;
* Perform workplace surveys and notify their supervisor of unsafe conditions;
* Cease operation and notify their supervisor of lift malfunctions; and,
* Understand and conform to this chapter’s requirements. Non-conformance may result in disciplinary action.

# Requirements:

* + All lifts must meet specific ANSI design and construction requirements. To find the ANSI standard for a specific lift type, please reference [WAC Chapter 296-869 Elevating Work Platforms, Part 20005](http://apps.leg.wa.gov/wac/default.aspx?cite=296-869-20005).
	+ All lifts must have manufacturer provided instructions, markings and manuals that meet appropriate ANSI requirements for the specific style of lift. Required manuals include the manufacturer’s operating and maintenance manuals and a manual that defines the responsibilities of dealers, owners, lessees, users and operators.
	+ All Manuals must be stored in a weatherproof storage compartment provided by the manufacturer, on the machine.
	+ Only trained and authorized personnel may operate aerial lifts.

# Training:

# Training must be lift specific and cover at least the following:

* + - General instruction on the inspection, application and operation of aerial lifts, to include recognizing and avoiding operational hazards associated
		- Purpose and use of manuals, including proper storage locations of manuals on vehicle when not in use.
		- Prestart inspections
		- Purpose and function of controls
		- Responsibilities associated with problems or malfunctions affecting the operation of the aerial lift
		- Factors affecting stability
		- Purpose of placards and decals
		- Workplace surveys
		- Safety rules and regulations pertinent to the industry
		- Authorization to operate an aerial left
		- Operator warnings and instructions
		- Proper use of personal fall protection equipment
		- Falling object protection
		- Overhead obstruction protection

Training must include having operator trainees operate the aerial lift, under the direction of a qualified person, for sufficient time to demonstrate proficiency.

Retraining is required when evaluation or observation of the operator indicates retraining is necessary.

When an individual will be using a new model or type of aerial lift, the following instruction is required before operation:

* Location of the manuals
* Purpose and function of controls
* Safety devices and operating characteristics specific to the aerial lift.

Training records must be retained for 3 years for manually propelled and boom- supported elevating work platforms and 4 years for self-propelled elevating work platforms.

# Operator Prestart Inspection:

* + Operators must perform a prestart inspection (see the following table).
	+ A qualified person must evaluate deficiencies identified during the inspection, and
	+ A qualified person MUST replace or repair all unsafe items before use. For additional requirements related to repairs and adjustments (who may perform them, manufacturer updates, and documentation) see [WAC Chapter 296-869 Elevating Work Platforms, Part 20005](http://apps.leg.wa.gov/wac/default.aspx?cite=296-869-20005).

**Operator Prestart Inspection**

| **Component or system:** | **Test or inspect for the following:** |
| --- | --- |
| Operating controls and associated mechanisms | Conditions interfering with proper operation |
| Visual and audible safety devices | Malfunctions |
| Hydraulic or pneumatic systems | Visible deterioration or excessive leaks |
| Fiberglass and other insulating components | Visible damage or contamination |
| Operational and instructional markings | That they are present and legible |
| Electrical systems of or related to the aerial device | Malfunction and for signs of excessive deterioration, dirt, and moisture accumulation |
| Locking devices, bolts, pins, and other fasteners | That they are in-place and are not loose or deformed |

# Workplace Survey:

Operator must survey the area, before using an aerial lift, for hazards such as:

* + Un-tamped earth fills or soft earth
	+ Ditches
	+ Drop-offs and floor obstructions
	+ Debris
	+ Overhead obstructions and electrical conductors
	+ Unsafe weather conditions
	+ Unauthorized persons in the area
	+ Flammable or potential atmospheres (see below)

If ANY of these hazards are present, refer to [WAC Chapter 296-869 Elevating Work Platforms, Part 20005](http://apps.leg.wa.gov/wac/default.aspx?cite=296-869-20005), Hazardous Locations, before continuing work. Elevated lift use in most flammable atmospheres is prohibited. Including potentially flammable atmospheres resulting from leaks (e.g. flammable storage) or combustible dust.

**Operating the Elevating Work Platform**

**Set Up.**

Positioning the elevating work platform against another object to steady the platform is prohibited.

You must do the following when other moving equipment or vehicles are present:

* Take special precautions to meet the requirements of local ordinances or workplace safety standards; and
* Use warnings such as, but not limited to, flags, roped-off areas, flashing lights, and barricades.

**Travel Speed**

Operators must not exceed safe travel speeds for operating conditions, consider the following:

* Ground or support surface condition;
* Congestion;
* Visibility;
* Slope;
* Location of personnel;
* Other factors that may create a collision hazard or result in injury.

**Driving**

Operators are responsible for the following while driving with the platform elevated:

* Maintaining a clear view of the path of travel;
* Keeping a safe distance from obstacles (including overhead obstacles), debris, drop-offs, holes, depressions, ramps, and other hazards to safe travel;

*Stunt driving and horseplay are prohibited.*

**Elevating and Lowering the Platform**

Operators must perform the following tasks before elevating the platform:

* Confirm the elevating work platform is on a surface that will support the platform per manufacturer’s recommendations;
* Deploy outriggers, stabilizers, extendable axes, or other stability enhancing mechanisms as required by the manufacturer;
* Ensure guardrails are installed and access gates or other openings are closed per the manufacturer's instructions;
* Confirm load and its distribution on the platform and any platform extension does not exceed the manufacturer's rated capacity;
* Ensure there is adequate clearance from overhead obstructions;
* Maintain the minimum safe approach distance (MSAD) to energized power lines and parts;
* Require that all persons on the platform wear fall protection. Prevent rope, electric cords, hoses and similar objects from becoming entangled with the platform.
* Clear the area of of personnel and equipment before lowering the platform.
* Remove all personnel from a platform that has been caught, snagged, or otherwise prevented from normal motion before attempting to free it using ground controls.

**Electrical Lines:**

**Minimum Safe Approach Distance**

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| --- | --- |
| **Voltage** | **Minimum Safe Approach** **Distance** |
| Less than 300 volts (insulated lines) | 3 feet (0.9 m) |
| Less than 300 volts (uninsulated lines) | 10 feet (3.1 m) |
| 300 volts to 50 kv | 10 feet (3.1 m) |
| More than 50 kv | 10 feet (3.1 m) + 0.4 inches (1.0 cm) for each 1 kv over 50 kv |

# Working From the Platform:

* + Do not exceed load limits specified by the manufacturer for the boom or platform.
	+ Stand firmly on the platform floor and *do not*:
* Sit or climb on the edge of the platform
* Use guardrails, planks, ladders or any other device to gain additional height or reach.
	+ When specified by the lift manufacturer, ensure all persons on the platform of an aerial lift type machine wear a full body harness with lanyard attached to the manufacturer’s recommended attachment point.
	+ **Never attach a lanyard to an adjacent pole, structure or equipment.**

# Malfunctions or unsafe conditions:

# You must make sure operators, if they suspect a malfunction of the elevating work platform or encounter any hazard or potentially unsafe condition, do all of the following:

# Cease operation.

# Report the problem or malfunction.

# Discontinue using the elevating work platform until problems or malfunctions that affect safe operation have been corrected.

# Modifications:

Any modification that alters or disables interlocks or other safety devices is prohibited. 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 an aerial lift or elevated work platform. If the original manufacturer is no longer in business, an equivalent entity such as a national recognized testing laboratory may approve the modification. After modification the aerial lift must be as safe as it was before being modified and any change to the insulated portion of the aerial lift cannot reduce the insulating value.

**Additional Requirements:**

For specific requirements for Owners, Supervisors and Operators including Inspections, Maintenance/Repair, Operation and Training go to link listed under Reference “A” at the beginning of the document.