

# Aerial Platform Lift Operator Safety Training

**Aerial Platform Mobile Lift Equipment  
for  
Construction & Industrial Safety**



**CCSD**   
**CLARK COUNTY  
SCHOOL DISTRICT**  
**Risk Management Department**



## Aerial Lifts Safety Tips

Aerial lifts include boom-supported aerial platforms, such as cherry pickers or bucket trucks. The major causes of fatalities are falls, electrocutions, and collapses or tip overs.

### Safe Work Practices

- Ensure that workers who operate aerial lifts are properly trained in the safe use of the equipment.
- Maintain and operate elevating work platforms in accordance with the manufacturer's instructions.
- Never override hydraulic, mechanical, or electrical safety devices.
- Never move the equipment with workers in an elevated platform unless this is permitted by the manufacturer.
- Do not allow workers to position themselves between overhead hazards, such as joists and beams, and the rails of the basket. Movement of the lift could crush the worker(s).
- Maintain a minimum clearance of at least 10 feet, or 3 meters, away from the nearest overhead lines.
- Always treat powerlines, wires and other conductors as energized, even if they are down or appear to be insulated.
- Use a body harness or restraining belt with a lanyard attached to the boom or basket to prevent the worker(s) from being ejected or pulled from the basket.
- Set the brakes, and use wheel chocks when on an incline.
- Use outriggers, if provided.
- Do not exceed the load limits of the equipment. Allow for the combined weight of the worker, tools, and materials.

For more complete information:



OSHA 3267-09N-05

# Aerial Lift Definitions

Aerial Lifts	Devices or equipment to lift workers and tools to an elevated worksite. Includes, scissors lifts, aerial man-lifts, and bucket trucks.
Bare-handwork	A technique of performing live-line maintenance on energized conductors and equipment whereby one or more authorized persons work directly on an energized part after having been raised and bonded to the energized conductors or equipment. CCSD does not conduct this type of task and should refer such work to authorized electrical contractors.
Category “A” Aerial Device	An aerial lift (usually a bucket truck) that has dielectric properties in order to resist electrical hazards. The dielectric components shall be certified annually to assure dielectric value.
Lower Controls	Controls situated at ground level of the lift that can control the lift platform. Usually used for emergency operation only.
MSAD	Minimum Safe Approach distance (to live electrical lines, equipment, and components.) This does not apply to line trucks. See manufacturer’s operator manuals for more information.
Operators	Qualified persons who directly control the movement of the aerial lift. These persons are authorized, trained, and engaged in the lift operation.
Owners	Persons or entities such as CCSD who have possession of an aerial lift. CCSD departments that lease or rent the equipment can be considered owners. Owners conduct maintenance and inspections on the lifts.
Upper Controls	Controls situated in the platform, man-lift, or bucket part of the aerial lift that also controls the movement of the lift. These are the main controls used during operation of the lift.
Users	Persons or entities such as CCSD who have care, control, and custody of the aerial lift.

# Aerial Lift Operator Warnings and Instructions

The aerial lift is used only for intended applications as defined in the equipment's operating manual. The following recognized safety practices shall be used:

1. Operators shall not use the lift in an unauthorized manner.
2. All platform occupants shall use fall protection (e.g., full body harness, shock-absorbing lanyard) connected to the anchorage point(s) provided on the platform.
3. A hard hat shall be worn at all times when operating aerial lifts including exposed employees below.
4. Other personal protective equipment, (e.g., eye, foot, hand, clothing) shall be worn as required.
5. The slope and grade for which the platform is rated shall not be exceeded. Aerial Lifts may be equipped with tilt or other motion/capacity warning alarms. These alarms shall be operational. The limit switch shall not be altered or disabled. Operators shall not depend upon the tilt alarm as a level indicator.
6. The deployment of stability-enhancing means, such as outriggers, outrigger pads, stabilizers or extendible axles, shall be utilized.
7. The guardrail system shall be used per manufacturer's specifications. Entry gates or chains shall be closed before operating the lift.
8. Operators shall not overload an aerial lift. Occupants and equipment shall not exceed the maximum platform capacity (or the maximum capacity of the platform extension when so equipped).
9. Safe distances, including overhead clearance, shall be maintained between the operator, the machine, and other objects. Electrocution hazards shall be avoided. Operators shall maintain safe distances from electrical power lines, conductors or bus bars. They shall allow for boom or platform movement or electrical line sway or sag. Operators shall follow minimum safe approach distances (MSAD); see Appendix G in this handout.
10. Only Category "A" aerial lifts shall be used for bare-hand electrical work. Check manufacturer's instructions for testing, locking, tagging, and grounding.
11. Operators shall not drive the mobile chassis close to an obstruction. The operator shall place his/her machine, then use the raise, swing, and boom functions to get in close. Operators shall use the slowest speed for such movements to avoid "bounce" of the platform.
12. Operators shall not sit, stand, or climb on the platform guardrails or edge of the bucket. They shall maintain a firm footing on the platform floor at all times keeping the platform free of tripping hazards.
13. The use of railings, planks, ladders, scaffolds or any other device in or out of the work platform for achieving additional height or reach is prohibited.
14. Areas around aerial lift operations shall be barricaded to prevent injury to pedestrians and other workers. When other moving equipment is present, precautions, such a warnings, barriers, or flashing lights shall be used.
15. Observations shall be conducted on an ongoing basis to detect any deficiencies in equipment or method of use. Operator shall cease operation of the lift if any suspected malfunction occurs. Problems or malfunctions must be reported to the supervisor as soon as possible. Repairs must be made before using the aerial lift.

16. Aerial lifts with internal combustion engines operating inside a building, or other unusual conditions, are prohibited unless evaluated and permitted by management.
17. Care shall be made to avoid entanglement with hoses, wires, cables, or other equipment while operating the lift.
18. Before lowering the lift, the work area must be clear of workers, equipment, or other obstructions.
19. Re-fuel or recharge the lift only in well-ventilated areas with the use of proper personal protective equipment and means of fire extinguishing.
20. For counter-weight purposes, batteries weighing less than the original batteries from the manufacturer shall not be used.
21. The platform shall not be steadied by positioning or attaching the lift against another object.
22. Operators shall not modify the lift by attaching fixed or overhanging loads, tools, or equipment outside the platform perimeter. Load limits shall be adhered to at all times. Modifications will only be approved with written permission from the manufacturer.
23. The lift shall not be used as a crane or jack, used to push or pull other objects unless designated by the manufacturer.
24. Operators shall limit travel speed according to conditions.
25. Traveling 50-feet or more with the aerial lift shall be done in the lowered position. Extensible or articulating booms shall be retracted or folded prior to relocation.
26. Driving requirements and repositioning shall include maintaining a clear view of the support surface and route of travel.
27. Stunt driving is prohibited.
28. When the aerial lift is left unattended, it shall be secured to protect from unauthorized use.
29. Personnel shall leave the lift when attempting to free a snagged lift. Entering or exiting an elevated platform must be conducted per the manufacturer's instructions. The use of 2- lanyards will be required as part of your fall protection system to ensure 100% fall protection when leaving or returning to an elevated lift.
30. Aerial lift occupants must use the 3-point contact when mounting or dismounting the platform or bucket.
31. Support requirements for the platform shall be adequate before the work begins. Know the weight of the lift plus its load capacity, and understand the structural strength of the support the lift will be placed on.
32. The aerial platform shall be leveled using the manufacturer's outriggers and leveling devices and the brakes set.
33. Operators shall not use the lift as a ground for welding.
34. Only one designated person should operate the controls. Operators shall never allow any one to tamper with, service, or operate a machine from the lower control station while the platform is occupied except in an emergency.
35. Operators shall not operate the lift during inclement weather as determined by the manufacturer's design and management's approval.



# MSAD

**(Minimum Safe Approach Distance)  
to Energized (Exposed or Insulated) Power Lines**

<b>Voltage Range Phase to Phase</b>	<b>MSAD</b>	
	<b>Feet</b>	<b>Meters</b>
0 to 300 V	Avoid Contact	
> 300 to 50 KV	10	3.05
> 50 KV to 200 KV	15	4.60
> 200 KV to 350 KV	20	6.10
> 350 KV 500 KV	25	7.62
> 500 KV to 750 KV	35	10.67
> 750 KV to 1000 KV	45	13.72