



Fall Protection Requirements at a Glance

All falls are undesired occurrences with the potential to cause injury. Even falls on the same level are covered by various standards and best practices, but this Safety Zone article will be limited in scope to what is commonly called “Falls to Different Level.”

While this article is organized around the OSHA Subparts, it is important to remember that OSHA standards are only considered minimum requirements. When it appears there is a fall hazard for which there are not adequate protections, even if not addressed in OSHA standards, an effort should be made to protect workers. Falls that injure and kill have occurred at heights considerably less than those heights required by the standards.

Fall prevention such as railings, wall and floor hole covers, positioning belts and harnesses and similar safeguards are always preferable to fall arrest.

Changes in Subpart D, Working-Walking Surfaces, effective most recently in November 2017, align some general industry requirements more closely with construction standards.



General Industry (Part 1910)

| Circumstance of Height | Height Threshold | Required Protections | Notes (See Below) |
|--|------------------|--|---|
| In General | 4 feet | See general requirements | See OSHA 29CFR1910.23, primary concern is openings and holes in walls and floors |
| Ladders, FIXED | 24 feet | Personal Fall Arrest System; or Ladder Safety System | 1 |
| Ladders, PORTABLE | -None- | Fall protection generally not required. | See OSHA's specifics for safe ladder selection, use, and inspection, 29CFR1910.25 and 26 |
| Stairs | 4 or more risers | Handrail | |
| Scissors Lifts | 10 feet | Factory installed railing and toe board systems. | 2,4 |
| Aerial Lifts, Extensible Lifts (“cherry-pickers,” etc) | 10 feet | Factory installed railing and toe board systems. Body belt and short lanyard or personal fall arrest system. Workers required to stand firmly on floor, not climb or sit on edges of enclosure of lift platform or basket. | 4 |
| Roof Work. Other work approaching a leading edge | 4 feet | Guard rail system, personal fall arrest system, safety nets* | * Need for, and type of protection is governed by proximity to leading edge, as of rule change effective November 2017. If over 15' no fall protection required. See note 3, below |

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Construction (Part 1926)

| Circumstance of Height | Height Threshold | Required Protections | Notes (See Below) |
|--|------------------|---|--|
| In General | 6 feet | See general requirements | |
| Scaffolding, in General | 10 feet | Most commonly, guard rails consisting of top, mid rails and toe board. In some cases Personal Fall Arrest System may be required. | Extensive requirements outlined in subpart M of Part 1926 |
| Scissors lifts | 10 feet | Factory installed railing and toe board systems. | 2 |
| Aerial Lifts, Extensible Lifts (“cherry-pickers,” etc) | 10 feet | Factory installed railing and toe board systems. Body belt and short lanyard or personal fall arrest systems. Workers required to stand firmly on floor, not climb or sit on edges of enclosure of lift platform or basket. | |
| Ladders, PORTABLE, (including job-built ladders) | -None- | Fall protection generally not required. | See OSHA’s specifics for ladder selection, use, construction, and inspection, 29CFR 1926.1053 |
| Excavations | 6 feet | Railings and toe board systems or covers, if possible | Treated generally like heights, the distance from the surface around the excavation to the lowest level of the hole governs. |
| Leading-Edge Construction | 6 feet | Railing systems, if possible; Personal Fall Arrest Systems, Net Systems, Controlled Access Zones, Safety Monitoring Systems | See OSHA 29CFR1926 Subpart M |

Miscellaneous Parts

| Circumstance of Height | Height Threshold | Required Protections | Notes (See Below) |
|--|------------------|--|-----------------------------------|
| Shipyards | 5 feet | Varies by circumstance | Refer to applicable OSHA subparts |
| Longshoring | 8 feet | Varies by circumstance | Refer to applicable OSHA Subparts |
| Working over hazardous machinery, equipment, vats, tanks, etc. | Any height | Railing system if possible, Personal Fall Arrest Systems | |

General Requirements

Regardless of the circumstances of height, industry or by what means elevation is achieved, OSHA lists some fundamentals for fall protection in all circumstances:

- Guard every floor hole into which a worker can accidentally walk (using a railing and toe-board or a floor hole cover).
- Provide a guardrail and toe-board around every elevated open sided platform, floor or runway.
- Regardless of height, if a worker can fall into or onto dangerous machines or equipment (such as a vat of acid or a conveyor belt) employers must provide guardrails and toe-boards to prevent workers from falling and getting injured.
- Other means of fall protection that may be required on certain jobs include safety harness and line, safety nets, stair railings and hand rails.
- Employees who are exposed to falls must be trained on the hazard, as well as on the various types of fall protection systems or other controls utilized.

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NOTES

1. Standard for fixed ladders was changed as of November 2018; cages are no longer accepted for new fixed ladder protections. Height requiring fall protection ranged from 20' to 24'. Ladder safety systems are similar to personal fall arrest systems, are part of the ladder and utilize a slider or "runner" that moves with the user of the ladder, clamping to a cable, rail, or similar structure in the event of a fall.
2. Employees are required to keep feet on floor of elevating platforms and not use railings, makeshift planks or other modifications to gain height to work outside the enclosure. To this end, body belts and short lanyards may be necessary to maintain worker positions inside of the lift enclosure.
3. Revised standard as of November 2017 for general industry fall exposures, proximity of work to edges dictates protections needed. See Subpart D, Working-Walking Surfaces, New Rule: <https://www.federalregister.gov/documents/2016/11/18/2016-24557/walking-working-surfaces-and-personal-protective-equipment-fall-protection-systems>.
4. Wearing of "body belt" and use of short lanyard are required in boom type lifts to control potential that worker will be bounced out of the basket or bucket while the machine is traversing uneven ground. Use of "body belt" and short lanyard is highly recommended for workers in in scissors lifts to ensure workers will not lean excessively beyond the railing system or attempt to climb horizontal rails to gain additional height.
5. *Understand the difference between a restraint system, a positioning device, and a Personal Fall Arrest system:* A restraint system is one that prevents a worker from falling **any** distance. In contrast, for construction work covered by 29 CFR Part 1926 Subpart M (Fall Protection), a "positioning device" is defined in §1926.500(b) as "a body belt or body harness system rigged to allow an employee to be supported on an elevated **vertical** surface, such as a wall or a pole, and work with both hands free while leaning." These devices are designed specifically to stop a worker from falling from a static, head-up position. Under §1926.502(e), a positioning device must limit the fall to 2 feet. Personal Fall Arrest systems are a 3-part system designed to stop (arrest) a worker's fall, and not allow the worker to fall more than 6 feet, or to the ground, or other surface. Fall Arrest Systems consist of a full-body harness, a connection component ("lanyard"), and an anchor point. Under §1926.502(d), body belts are not permitted to be used in a personal fall arrest system.

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