

### ***Understanding New OSHA fixed ladder regulations:***

*In 2018, OSHA implemented new requirements on fixed ladders attached to buildings and structures. In the past, OSHA required safety cages on ladders over 20' in height with offset rest platforms every 30' of ladder height. The new guidelines remove cages as a requirement, replacing them with fall protection devices. A typical fall protection device on a fixed ladder can include a "cable grab" or "rigid track" fall arrest system.*

*At Ascend Fab, we have found that most of our clients prefer safety cages on their ladder systems. Safety cages are so named because they have positive proven track history. Additionally, they provide a benefit to the climber with a surrounding enclosure, which also provides a "calming effect" for the user. Uncaged ladders that utilize a fall protection device leave the climber exposed with no surrounding enclosure. They also rely on the user to always wear a body harness, which is connected to a cable or track. Where OSHA blew it with this change in regulation is in their lack of awareness that users in their "haste and hurry" will access uncaged fixed ladders without the use of the safety harness. An open uncaged ladder with no harness connected is a disastrous scenario.*

*At Ascend Fab, we recommend the continued use of safety cage enclosures on ladders exceeding 20' in height. Based on new OSHA requirements, clients should also base their selection on the following:*

- *Per OSHA, fixed ladders under 24' height do not require a cage or fall arrest system (FAS). A security safety cage is optional for the client. (A safety cage typically commences approximately 7' above grade level.) What is your comfort level?*
- *Per OSHA, ladders over 24' height, require a "track", "cable grab" or "other type" of fall arrest system (FAS). The safety cage remains optional.*
- *When a safety cage is utilized, always purchase a lock-out hoop guard or security door, which keeps unauthorized personnel from accessing the ladder.*
- *Always use grab bars at the top of fixed ladders on buildings and parapet platforms when the exterior building sidewall terminates at a different elevation than the building roof level.*
- *Per OSHA, if your fixed ladder with cage and FAS exceeds 50' in height, a rest/safety platform is required.*
- *Per OSHA, if your uncaged ladder with FAS exceeds a 150' in height, a rest/safety platform is required.*

### ***Understanding terminology that OSHA has defined in their "Scope & Definitions" on Ladders, Platforms, Walking & Working Surfaces:***

*Alternating tread-type stair means a type of stairway consisting of a series of treads that usually are attached to a center support in an alternating manner such that an employee typically does not have both feet on the same level while using the stairway.*

*Anchorage means a secure point of attachment for equipment such as lifelines, lanyards, deceleration devices, and rope descent systems.*

*Authorized* means an employee who the employer assigns to perform a specific type of duty, or allows in a specific location or area.

*Cage* means an enclosure mounted on the side rails of a fixed ladder or fastened to a structure behind the fixed ladder that is designed to surround the climbing space of the ladder. A cage also is called a "cage guard" or "basket guard."

*Carrier* means the track of a ladder safety system that consists of a flexible cable or rigid rail attached to the fixed ladder or immediately adjacent to it.

*Combination ladder* means a portable ladder that can be used as a stepladder, extension ladder, trestle ladder, or stairway ladder. The components of a combination ladder also may be used separately as a single ladder.

*Dangerous equipment* means equipment, such as vats, tanks, electrical equipment, machinery, equipment or machinery with protruding parts, or other similar units, that, because of their function or form, may harm an employee who falls into or onto the equipment.

*Designated area* means a distinct portion of a walking-working surface delineated by a warning line in which employees may perform work without additional fall protection.

*Dockboard* means a portable or fixed device that spans a gap or compensates for a difference in elevation between a loading platform and a transport vehicle. Dockboards include, but are not limited to, bridge plates, dock plates, and dock levelers.

*Equivalent* means alternative designs, equipment, materials, or methods, that the employer can demonstrate will provide an equal or greater degree of safety for employees compared to the designs, equipment, materials, or methods specified in this subpart.

*Extension ladder* means a non-self-supporting portable ladder that is adjustable in length.

*Failure* means a load refusal, breakage, or separation of component parts. A load refusal is the point at which the ultimate strength of a component or object is exceeded.

*Fall hazard* means any condition on a walking-working surface that exposes an employee to a risk of harm from a fall on the same level or to a lower level.

*Fall protection* means any equipment, device, or system that prevents an employee from falling from an elevation or mitigates the effect of such a fall.

*Fixed ladder* means a ladder with rails or individual rungs that is permanently attached to a structure, building, or equipment. Fixed ladders include individual-rung ladders, but not ship stairs, step bolts, or manhole steps.

*Grab bar* means an individual horizontal or vertical handhold installed to provide access above the height of the ladder.

*Guardrail system* means a barrier erected along an unprotected or exposed side, edge, or other area of a walking-working surface to prevent employees from falling to a lower level.

*Handrail* means a rail used to provide employees with a handhold for support.

*Hoist area* means any elevated access opening to a walking-working surface through which equipment or materials are loaded or received.

*Hole* means a gap or open space in a floor, roof, horizontal walking-working surface, or similar surface that is at least 2 inches (5 cm) in its least dimension.

*Individual-rung ladder* means a ladder that has rungs individually attached to a building or structure. An individual-rung ladder does not include manhole steps.

*Ladder* means a device with rungs, steps, or cleats used to gain access to a different elevation.

*Ladder safety system* means a system designed to eliminate or reduce the possibility of falling from a ladder. A ladder safety system usually consists of a carrier, safety sleeve, lanyard, connectors, and body harness. Cages and wells are not ladder safety systems.

*Low-slope roof* means a roof that has a slope less than or equal to a ratio of 4 in 12 (vertical to horizontal).

*Lower level* means a surface or area to which an employee could fall. Such surfaces or areas include, but are not limited to, ground levels, floors, roofs, ramps, runways, excavations, pits, tanks, materials, water, equipment, and similar surfaces and structures, or portions thereof.

*Manhole steps* means steps that are individually attached to, or set into, the wall of a manhole structure.

*Maximum intended load* means the total load (weight and force) of all employees, equipment, vehicles, tools, materials, and other loads the employer reasonably anticipates to be applied to a walking-working surface at any one time.

*Mobile* means manually propelled or moveable.

*Mobile ladder stand* (ladder stand) means a mobile, fixed-height, self-supporting ladder that usually consists of wheels or casters on a rigid base and steps leading to a top step. A mobile ladder stand also may have handrails and is designed for use by one employee at a time.

*Mobile ladder stand platform* means a mobile, fixed-height, self-supporting unit having one or more standing platforms that are provided with means of access or egress.

*Open riser* means the gap or space between treads of stairways that do not have upright or inclined members (risers).

*Opening* means a gap or open space in a wall, partition, vertical walking-working surface, or similar surface that is at least 30 inches (76 cm) high and at least 18 inches (46 cm) wide, through which an employee can fall to a lower level.

*Personal fall arrest system* means a system used to arrest an employee in a fall from a walking-working surface. It consists of a body harness, anchorage, and connector. The means of connection may include a lanyard, deceleration device, lifeline, or a suitable combination of these.

*Personal fall protection system* means a system (including all components) an employer uses to provide protection from falling or to safely arrest an employee's fall if one occurs. Examples of personal fall protection systems include personal fall arrest systems, positioning systems, and travel restraint systems.

*Platform* means a walking-working surface that is elevated above the surrounding area.

*Portable ladder* means a ladder that can readily be moved or carried, and usually consists of side rails joined at intervals by steps, rungs, or cleats.

*Positioning system* (work-positioning system) means a system of equipment and connectors that, when used with a body harness or body belt, allows an employee to be supported on an elevated vertical surface, such as a wall or window sill, and work with both hands free. Positioning systems also are called “positioning system devices” and “work-positioning equipment.”

*Qualified* describes a person who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the project.

*Ramp* means an inclined walking-working surface used to access another level.

*Riser* means the upright (vertical) or inclined member of a stair that is located at the back of a stair tread or platform and connects close to the front edge of the next higher tread, platform, or landing.

*Rope descent system* means a suspension system that allows an employee to descend in a controlled manner and, as needed, stop at any point during the descent. A rope descent system usually consists of a roof anchorage, support rope, a descent device, carabiner(s) or shackle(s), and a chair (seatboard). A rope descent system also is called controlled descent equipment or apparatus. Rope descent systems do not include industrial rope access systems.

*Rung, step, or cleat* means the cross-piece of a ladder on which an employee steps to climb up and down.

*Runway* means an elevated walking-working surface, such as a catwalk, a foot walk along shafting, or an elevated walkway between buildings.

*Scaffold* means any temporary elevated or suspended platform and its supporting structure, including anchorage points, used to support employees, equipment, materials, and other items. For purposes of this subpart, a scaffold does not include a crane-suspended or derrick-suspended personnel platform or a rope descent system.

*Ship stair* (ship ladder) means a stairway that is equipped with treads, stair rails, and open risers, and has a slope that is between 50 and 70 degrees from the horizontal.

*Side-step ladder* means a type of fixed ladder that requires an employee to step sideways from it in order to reach a walking-working surface, such as a landing.

*Spiral stairs* mean a series of treads attached to a vertical pole in a winding fashion, usually within a cylindrical space.

*Stair rail or stair rail system* means a barrier erected along the exposed or open side of stairways to prevent employees from falling to a lower level.

*Stairway (stairs)* means risers and treads that connect one level with another, and includes any landings and platforms in between those levels. Stairways include standard, spiral, alternating tread-type, and ship stairs.

*Standard stairs* mean a fixed or permanently installed stairway. Ship, spiral, and alternating tread-type stairs are not considered standard stairs.

*Step bolt* (pole step) means a bolt or rung attached at intervals along a structural member used for foot placement and as a handhold when climbing or standing.

*Stepladder* means a self-supporting, portable ladder that has a fixed height, flat steps, and a hinged back.

*Stepstool* means a self-supporting, portable ladder that has flat steps and side rails. For purposes of the final rule, stepstool includes only those ladders that have a fixed height, do not have a pail shelf, and do not exceed 32 inches (81 cm) in overall height to the top cap, although side rails may extend above the top cap. A stepstool is designed so an employee can climb and stand on all the steps and the top cap.

*Through ladder* means a type of fixed ladder that allows the employee to step through the side rails at the top of the ladder to reach a walking-working surface, such as a landing.

*Tieback* means an attachment between an anchorage (e.g., structural member) and a supporting device (e.g., parapet clamp or cornice hook).

*Toeboard* means a low protective barrier that is designed to prevent materials, tools, and equipment from falling to a lower level, and protect employees from falling.

*Travel restraint system* means a combination of an anchorage, anchorage connector, lanyard (or other means of connection), and body support that an employer uses to eliminate the possibility of an employee going over the edge of a walking-working surface.

*Tread* means a horizontal member of a stair or stairway but does not include landings or platforms.

*Unprotected sides and edges* mean any side or edge of a walking-working surface (except at entrances and other points of access) where there is no wall, guardrail system, or stair rail system to protect an employee from falling to a lower level.

*Walking-working surface* means any horizontal or vertical surface on or through which an employee walks, works, or gains access to a work area or workplace location.

*Warning line* means a barrier erected to warn employees that they are approaching an unprotected side or edge, and which designates an area in which work may take place without the use of other means of fall protection.

*Well* means a permanent, complete enclosure around a fixed ladder.