

## **POLICY**

E & B Oilfield Services, Inc. has adopted this policy to ensure the safety of personnel who use scaffolding in the performance of work.

## **REFERENCES**

§1926 Subpart L Scaffold Specifications  
E & B Oilfield Services, Inc. Fall Protection Policy

## **RESPONSIBILITIES**

The following engineering controls, training requirements, and safe work practices will be enforced by Danny Abegglen to protect our employees from hazards associated with the erecting and use of scaffolds:

- Training of all employees that work on scaffolds is conducted by "Qualified" persons.
- An inspection of the scaffold must be conducted by a competent person and deemed safe prior to being used.

### **Competent Person**

The competent person will be trained in accordance with the Occupational Safety and Health Administration and responsible for:

- Directing employees who erect, dismantle, move or alter scaffolding
- Determining if it is safe for employees to work from a scaffold during storms or high winds, and ensure that a personal fall arrest system is in place
- Training employees involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting scaffolding to recognize associated work hazards
- Inspecting scaffolds and scaffold components for visible defects before each work shift, and after any occurrence which could affect the structural integrity, and to authorize prompt corrective action
- Inspecting ropes on suspended scaffolds prior to each work shift and after every occurrence which could affect the structural integrity, and to authorize prompt corrective actions
- For suspension scaffolds, evaluating direct connections to support the load to be imposed
- For erectors and dismantler's, determining the feasibility and safety of providing fall protection and access
- For scaffold components: determining if a scaffold will be structurally sound when intermixing components from different manufacturer's; and determining if galvanic action has affected the capacity when using components of dissimilar metals

## **Qualified Person**

Qualified persons will be responsible for:

Designing and loading scaffolds in accordance with design specifications

Training employees working on the scaffolds to recognize the associated hazards and understand procedures to control or minimize those hazards

For suspension scaffolds:

- Designing platforms on two-point adjustable suspension types that are less than 36 inches wide to prevent instability
- Making swaged attachments and spliced eyes on wire suspension ropes
- Designing components in accordance with design specifications

## **TRAINING**

Each E & B Oilfield Services, Inc. employee who performs work erecting, disassembling, moving, or working with scaffolds in any way is trained under the supervision of Danny Abegglen, who is designated as the Qualified Person for E & B Oilfield Services, Inc., to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards.

- The training program, at a minimum, addresses the following hazards
- Assessment of any electrical hazards, fall hazards, and falling object hazards in the work area
- The correct procedures for dealing with electrical hazards and for erecting, maintaining, and disassembling the scaffolding and fall protection systems and falling object protection systems being used
- Proper use of the scaffold, and the safe handling of materials on the scaffold
- Maximum intended loads and the load carrying capacities of the scaffolds used
- The nature of scaffold hazards
- The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold being used
- The design criteria, maximum intended load carrying capacity, and intended use of the scaffold
- Any other safety topics deemed pertinent to the particular work-site, scaffold system, or fall protection systems being used
- Retraining is required when scaffold application, type of scaffold used, or when job conditions change

## **DEFINITIONS**

**Adjustable suspension scaffold** means a suspension scaffold equipped with a hoist(s) that can be operated by an employee(s) on the scaffold.

**Bearer (putlog)** means a horizontal transverse scaffold member (which may be supported by ledgers or runners) upon which the scaffold platform rests and which joins scaffold uprights, posts, poles, and similar members.

**Boatswains' chair** means a single-point adjustable suspension scaffold consisting of a seat or sling designed to support one employee in a sitting position.

**Body belt (safety belt)** means a strap with means both for securing it about the waist and for attaching it to a lanyard, lifeline, or deceleration device.

**Body harness** means a design of straps which may be secured about the employee in a manner to distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders, with means for attaching it to other components of a personal fall arrest system. **Brace** means a rigid connection that holds one scaffold member in a fixed position with respect to another member, or to a building or structure.

**Bricklayers' square scaffold** means a supported scaffold composed of framed squares which support a platform.

**Cleat** means a structural block used at the end of a platform to prevent the platform from slipping off its supports. Cleats are also used to provide footing on sloped surfaces such as crawling boards.

**Competent person** means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

**Continuous run scaffold (Run scaffold)** means a two-point or multi-point adjustable suspension scaffold constructed using a series of interconnected braced scaffold members or supporting structures erected to form a continuous scaffold.

**Coupler** means a device for locking together the tubes of a tube and coupler scaffold.

**Crawling board (chicken ladder)** means a supported scaffold consisting of a plank with cleats spaced and secured to provide footing, for use on sloped surfaces such as roofs.

**Deceleration device** means any mechanism, such as a rope grab, rip-stitch lanyard, specially-woven lanyard, tearing or deforming lanyard, or automatic self-retracting lifeline lanyard, which dissipates a substantial amount of energy during a fall arrest or limits the energy imposed on an employee during fall arrest.

**Double pole (independent pole) scaffold** means a supported scaffold consisting of a platform(s) resting on cross beams (bearers) supported by ledgers and a double row of uprights independent of support (except ties, guys, braces) from any structure.

**Equivalent** means alternative designs, materials or methods to protect against a hazard which the employer can demonstrate will provide an equal or greater degree of safety for employees than the methods, materials or designs specified in the standard.

**Exposed power lines** means electrical power lines which are accessible to employees and which are not shielded from contact. Such lines do not include extension cords or power tool cords.

**Eye or Eye splice** means a loop with or without a thimble at the end of a wire rope.

**Fabricated decking and planking** means manufactured platforms made of wood (including laminated wood, and solid sawn wood planks), metal or other materials.

**Fabricated frame scaffold (tubular welded frame scaffold)** means a scaffold consisting of a platform(s) supported on fabricated end frames with integral posts, horizontal bearers, and intermediate members.

**Failure** means load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

**Float (ship) scaffold** means a suspension scaffold consisting of a braced platform resting on two parallel bearers and hung from overhead supports by ropes of fixed length.

**Form scaffold** means a supported scaffold consisting of a platform supported by brackets attached to formwork.

**Guardrail system** means a vertical barrier, consisting of, but not limited to, top rails, midrails, and posts, erected to prevent employees from falling off a scaffold platform or walkway to lower levels.

**Hoist** means a manual or power-operated mechanical device to raise or lower a suspended scaffold.

**Horse scaffold** means a supported scaffold consisting of a platform supported by construction horses (saw horses). Horse scaffolds constructed of metal are sometimes known as trestle scaffolds.

**Independent pole** scaffold (see "Double pole scaffold").

Interior hung scaffold means a suspension scaffold consisting of a platform suspended from the ceiling or roof structure by fixed length supports.

**Ladder jack scaffold** means a supported scaffold consisting of a platform resting on brackets attached to ladders.

**Ladder stand** means a mobile, fixed-size, self-supporting ladder consisting of a wide flat tread ladder in the form of stairs.

**Landing** means a platform at the end of a flight of stairs.

**Large area scaffold** means a pole scaffold, tube and coupler scaffold, systems scaffold, or fabricated frame scaffold erected over substantially the entire work area. For example: a scaffold erected over the entire floor area of a room.

**Lean-to scaffold** means a supported scaffold which is kept erect by tilting it toward and resting it against a building or structure.

**Lifeline** means a component consisting of a flexible line that connects to an anchorage at one end to hang vertically (vertical lifeline), or that connects to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.

**Lower levels** means areas below the level where the employee is located and to which an employee can fall. Such areas include, but are not limited to, ground levels, floors, roofs, ramps, runways, excavations, pits, tanks, materials, water, and equipment.

**Masons' adjustable supported scaffold** (see "Self-contained adjustable scaffold").

**Masons' multi-point adjustable suspension scaffold** means a continuous run suspension scaffold designed and used for masonry operations.

**Maximum intended load** means the total load of all persons, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a scaffold or scaffold component at any one time.

**Mobile scaffold** means a powered or unpowered, portable, caster or wheel-mounted supported scaffold.

**Multi-level suspended scaffold** means a two-point or multi-point adjustable suspension scaffold with a series of platforms at various levels resting on common stirrups.

**Multi-point adjustable suspension scaffold** means a suspension scaffold consisting of a platform(s) which is suspended by more than two ropes from overhead supports and equipped with means to raise and lower the platform to desired work levels. Such scaffolds include chimney hoists.

**Needle beam scaffold** means a platform suspended from needle beams.

**Open sides and ends** means the edges of a platform that are more than 14 inches (36 cm) away horizontally from a sturdy, continuous, vertical surface (such as a building wall) or a sturdy, continuous horizontal surface (such as a floor), or a point of access. Exception: For plastering and lathing operations the horizontal threshold distance is 18 inches (46 cm).

**Outrigger** means the structural member of a supported scaffold used to increase the base width of a scaffold in order to provide support for and increased stability of the scaffold.

**Outrigger beam (Thrustout)** means the structural member of a suspension scaffold or outrigger scaffold which provides support for the scaffold by extending the scaffold point of attachment to a point out and away from the structure or building.

**Outrigger scaffold** means a supported scaffold consisting of a platform resting on outrigger beams (thrustouts) projecting beyond the wall or face of the building or structure, the inboard ends of which are secured inside the building or structure.

**Overhand bricklaying** means the process of laying bricks and masonry units such that the surface of the wall to be jointed is on the opposite side of the wall from the mason, requiring the mason to lean over the wall to complete the work. It includes mason tending and electrical installation incorporated into the brick wall during the overhand bricklaying process.

**Personal fall arrest system** means a system used to arrest an employee's fall. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or combinations of these.

**Platform** means a work surface elevated above lower levels. Platforms can be constructed using individual wood planks, fabricated planks, fabricated decks, and fabricated platforms.

**Pole scaffold** (see definitions for "Single-pole scaffold" and "Double (independent) pole scaffold").

**Power operated hoist** means a hoist which is powered by other than human energy.

**Pump jack scaffold** means a supported scaffold consisting of a platform supported by vertical poles and movable support brackets.

**Qualified** means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

**Rated load** means the manufacturer's specified maximum load to be lifted by a hoist or to be applied to a scaffold or scaffold component.

**Repair bracket scaffold** means a supported scaffold consisting of a platform supported by brackets which are secured in place around the circumference or perimeter of a chimney, stack, tank or other supporting structure by one or more wire ropes placed around the supporting structure.

**Roof bracket scaffold** means a rooftop supported scaffold consisting of a platform resting on angular-shaped supports.

**Runner (ledger or ribbon)** means the lengthwise horizontal spacing or bracing member which may support the bearers.

**Scaffold** means any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage), used for supporting employees or materials or both.

**Self-contained adjustable scaffold** means a combination supported and suspension scaffold consisting of an adjustable platform(s) mounted on an independent supporting frame(s) not a part of the object being worked on, and which is equipped with a means to permit the raising and lowering of the platform(s). Such systems include rolling roof rigs, rolling outrigger systems, and some masons' adjustable supported scaffolds.

**Shore scaffold** means a supported scaffold which is placed against a building or structure and held in place with props.

**Single-point adjustable suspension scaffold** means a suspension scaffold consisting of a platform suspended by one rope from an overhead support and equipped with means to permit the movement of the platform to desired work levels.

**Single-pole scaffold** means a supported scaffold consisting of a platform(s) resting on bearers, the outside ends of which are supported on runners secured to a single row of posts or uprights, and the inner ends of which are supported on or in a structure or building wall.

**Stair tower (Scaffold stairway/tower)** means a tower comprised of scaffold components and which contains internal stairway units and rest platforms. These towers are used to provide access to scaffold platforms and other elevated points such as floors and roofs.

**Stall load** means the load at which the prime-mover of a power-operated hoist stalls or the power to the prime-mover is automatically disconnected.

**Step, platform, and trestle ladder scaffold** means a platform resting directly on the rungs of step ladders or trestle ladders.

**Stilts** means a pair of poles or similar supports with raised footrests, used to permit walking above the ground or working surface.

**Stonesetters' multi-point adjustable suspension scaffold** means a continuous run suspension scaffold designed and used for stonesetters' operations.

**Supported scaffold** means one or more platforms supported by outrigger beams, brackets, poles, legs, uprights, posts, frames, or similar rigid support.

**Suspension scaffold** means one or more platforms suspended by ropes or other non-rigid means from an overhead structure(s).

**System scaffold** means a scaffold consisting of posts with fixed connection points that accept runners, bearers, and diagonals that can be interconnected at predetermined levels.

**Tank builders' scaffold** means a supported scaffold consisting of a platform resting on brackets that are either directly attached to a cylindrical tank or attached to devices that are attached to such a tank.

**Top plate bracket scaffold** means a scaffold supported by brackets that hook over or are attached to the top of a wall. This type of scaffold is similar to carpenters' bracket scaffolds and form scaffolds and is used in residential construction for setting trusses.

**Tube and coupler scaffold** means a supported or suspended scaffold consisting of a platform(s) supported by tubing, erected with coupling devices connecting uprights, braces, bearers, and runners.

Tubular welded frame scaffold (see "Fabricated frame scaffold").

**Two-point suspension scaffold (swing stage)** means a suspension scaffold consisting of a platform supported by hangers (stirrups) suspended by two ropes from overhead supports and equipped with means to permit the raising and lowering of the platform to desired work levels.

**Unstable objects** means items whose strength, configuration, or lack of stability may allow them to become dislocated and shift and therefore may not properly support the loads imposed on them. Unstable objects do not constitute a safe base support for scaffolds, platforms, or employees. Examples include, but are not limited to, barrels, boxes, loose brick, and concrete blocks.

**Vertical pickup** means a rope used to support the horizontal rope in catenary scaffolds.

**Walkway** means a portion of a scaffold platform used only for access and not as a work level.

**Window jack scaffold** means a platform resting on a bracket or jack which projects through a window opening.

## Tags

1. Inspection and tagging of the scaffold is to be performed by a competent worker experienced in the erection of scaffold.

2. A unique scaffold identification tag number must be clearly identified on all tags for tracking purposes.

3. All scaffolds shall be inspected after the erection as per the Occupational Health and Safety Act requirements.

4. All scaffold identification tags will be of a solid green, yellow, or red color with black lettering.

5. All scaffold identification tags will have the front information displayed and must be completed for each tag.

- Date Erected / Tagged
- Inspected By: Name (print & signature)
- Inspection Date
- Department or Group Responsible for Erection / Maintaining / Dismantling on the reverse.

6. It is common practice to use the following color schemes:

**Green** - tags will be hung on scaffolds that have been inspected and are safe for use. A green "SAFE FOR USE" tag(s), and should be attached to the scaffold at each access point after the initial inspection is complete.

**Yellow** - "CAUTION" tag(s), will replace all green "Safe Scaffold" tag(s) whenever the scaffold has been modified to meet work requirements, and as a result could present a hazard to the user. This tag indicates special requirements for safe use. The tag as a minimum requirement will have:

- The unusual or potential hazard marked on the reverse.
- The preventative measures that must be taken prior to use to mitigate the hazard marked on the reverse.
- The name of the client company representative authorizing the use of the Yellow tagged scaffold.
- The yellow tag should not to be removed until the scaffold has been returned to a safe condition and an inspection by a "competent person" has been completed. Based on the results of that inspection the appropriate tag (red or green) will be hung on the scaffold and the yellow tag removed.

NOTE: Use of the "yellow tag" status is not intended to override the green tag system. All efforts should be made to return the scaffold to a "Green Tag" status as soon as possible.

**Red** " DANGER – UNSAFE FOR USE" tag(s), will be used during erection or dismantling when the scaffold is left unattended and replace all green "Safe for Use " tag(s) or yellow "Caution / Hazard " tag(s) in the event a scaffold has been deemed unfit for use. The tag(s) as a minimum requirement will include:

- The work order number or project number, the inspection date and the name of the person who performed the inspection filled in on the front of the card.
- The designation, under erection, being dismantled, repairs required or overhead protection only, marked on the reverse.
- Scaffold re-inspections must be completed any time when conditions may have changed causing the integrity of the scaffold to be suspect

Scaffold load limits can be found on the Green or Yellow inspection card at the scaffold entrance(s).

## SAFE PRACTICES

- Stationary scaffolds over 125 feet in height and rolling scaffolds over 60 feet in height will be designed by a professional engineer  
An inspection of the scaffold must be conducted by a competent person and deemed safe prior to being used
- Damaged or deteriorated equipment will not be used  
All scaffolding systems, components, and fall protection systems used will be inspected by Danny Abegglen prior to use, before each work shift begins, after erecting or moving, and periodically through the work day to ensure the system is erected properly, that there is no damage to components of the system, and that the system is being used properly and safely
- Modifications of scaffold by non-qualified employees is prohibited. Only qualified and competent personnel are allowed to modify scaffolding systems. Disciplinary action for non-qualified modifications will be enforced
- Any system or component of a system which is found to have a defect in manufacturing or design, damage, excessive wear, weathering, or corrosion, will be immediately removed from service and tagged to indicate that it is not to be used with a prominent tag, as shown below, which states:



- Any repairs or modifications to a scaffold system or component of a system must be approved by Danny Abegglen prior to implementation
- Any violation of the above policy, misuse of scaffolds, or misconduct while working on scaffolds will be subject to disciplinary action within the scope of Company policy, up to and including termination of employment

### Capacity/Loads

Each scaffold and scaffold component will be capable of supporting, without failure, its own weight and at least four times the maximum intended load applied or transmitted to it.

## **Platforms**

Each platform on all working levels of scaffolds will be fully planked or decked between the front uprights and the guardrail supports as follows;

- Platforms will be entirely planked and decked with space not more than one inch wide between the platforms and uprights
- The platform will not deflect more than 1/60 of the span when loaded
- All platforms will be kept clear of debris or other obstructions
- Wood planks will be inspected to see that there are graded for scaffold use, are sound and in good condition, straight grained, free from saw cuts, splits and holes
- Platforms and walkways will be at least 18 inches in width. When the work area is less than 18 inches wide, guardrails and/or personal fall arrest systems will be used
- Where platforms are overlapped to create a long platform, the overlap will occur only over supports, and will not be less than 12 inches unless the platforms are nailed
- The front edge of all platforms will not be more than fourteen inches from the face of the work without guardrails or PFAS
- A platform greater than 10 feet in length will not extend over its support more than 18 inches, unless it is designed and installed so that the cantilevered portion of the platform is able to support employees without tipping, or has guardrails which block employee access to the cantilevered end
- Don't cover wood with opaque finishes, other than the edges for making identification
- Coatings will not obscure the top or bottom wood surfaces
- Each end of the platform, unless cleated or otherwise restrained by hooks or equivalent means, will extend over the centerline of its support at least six inches
- Scaffold components manufactured by different manufacturers will not be intermixed unless the components fit together without force and the scaffold's structural integrity is maintained. Scaffold components made of dissimilar metals will not be used together unless a competent person has determined that galvanic action will not reduce the strength of any component

## **Support Scaffolds**

Supported scaffolds are platforms supported by legs, outriggers beams, brackets, poles, uprights, posts, frames, or similar rigid support. The structural members, poles, legs, posts, frames, and uprights, must be plumb and braced to prevent swaying and displacement.

Supported scaffolds with a height to base width ratio of more than 4:1 must be restrained by guying, tying, bracing or an equivalent means.

The following placements must be used for guys, ties, and braces;

- Install guys, ties, or braces at the closest horizontal member to the 4:1 height and repeat vertically with the top restraint no further than 4:1 height from the top
- Vertically – every 20 feet or less for scaffolds less than three feet wide and every twenty-six feet or less for scaffolds more than three feet wide
- Horizontally – at each end; at intervals not to exceed 30 feet from one end

Supported scaffold poles, legs, posts, frames, and uprights will bear on base plates and mud sills or other adequate firm foundation and will include the following;

Footings will be level, sound, rigid, and capable of supporting the loaded scaffold without settling or displacement

Unstable objects will not be used to support working platforms

Front-end loaders and similar pieces of equipment will not be used to support scaffold platforms unless specifically designed by the manufacturer for such use

Forklifts will not be used to support scaffold platforms unless the platform is attached to the fork and the fork-lift is not moved horizontally while the platform is occupied

Supported scaffold poles, legs, posts, frames, and uprights will be plumb and braced to prevent swaying and displacement.

### **Suspended Scaffolds**

A suspension scaffold contains one or more platforms suspended by ropes or other non-rigid means from an overhead structure, 1926.450(b), such as the following scaffolds: single-point, multi-point, multi-level, two-point, adjustable, boatswain's chair, catenary, chimney hoist, continuous run, elevator false car, go-devils, interior hung, masons', and stone setters'.

- All support devices must rest on surfaces that can support four times the scaffold load when operating at the rated load of the hoist, or at least one-and-a-half times the load imposed on them by the scaffold at the stall capacity of the hoist, whichever is greater
- A competent person must evaluate all direct connections prior to use to confirm that the supporting surfaces are able to support the imposed load
- Suspension scaffolds must be secured to prevent them from swaying
- Guardrails, a personal fall-arrest system, or both must protect each employee more than 10 feet (3.1 m) above a lower level from falling
- A competent person must inspect ropes for defects prior to each workshift and after every occurrence that could affect a rope's integrity
- When scaffold platforms are more than 24 inches (61 cm) above or below a point of access, ladders, ramps, walkways, or similar surfaces must be used
- When using direct access, the surface must not be more than 24 inches (61 cm) above or 14 inches (36 cm) horizontally from the surface
- When lanyards are connected to horizontal lifelines or structural members on single-point or two-point adjustable scaffolds, the scaffold must have additional independent support lines equal to the suspension lines and have automatic locking devices
- Outrigger beams must be placed perpendicular to their bearing support
- Emergency escape and rescue devices must not be used as working platforms, unless designed to function as suspension scaffolds and emergency systems.
- Tiebacks must be secured to a structurally sound anchorage on the building or structure. Sound anchorages do not include standpipes, vents, other piping systems, or electrical conduit. A single tieback must be installed perpendicular to the face of the building or structure. Two tiebacks installed at opposing angles are required when a perpendicular tieback cannot be installed
- Only those items specifically designed as counterweights must be used
- Counterweights must be secured by mechanical means to the outrigger beams

- Vertical lifelines must not be fastened to counterweight
- Sand, masonry units, or rolls of roofing felt may not be used for counterweights
- The suspension ropes must be long enough to allow the scaffold to be lowered to the level below without the rope passing through the hoist, or the end of the rope configured to prevent the end from passing through the hoist
- Repaired wire may not be used
- Drum hoists must contain no less than four wraps of the rope at the lowest point
- Employers must replace wire rope when the following conditions exist: kinks; six randomly broken wires in one rope lay or three broken wires in one strand in one lay; one third of the original diameter of the outside wires is lost; heat damage; evidence that the secondary brake has engaged the rope; and any other physical damage that impairs the function and strength of the rope
- Suspension ropes supporting adjustable suspension scaffolds must be a diameter large enough to provide sufficient surface area for the functioning of brake and hoist mechanisms
- Suspension ropes must be shielded from heat-producing processes
- Power-operated hoists used to raise or lower a suspended scaffold must be tested by a qualified testing laboratory
- The stall load of any scaffold hoist must not exceed three times its rated load
- The stall load is the load at which the prime-mover (motor or engine) of a power-operated hoist stalls or the power to the prime-mover is automatically disconnected
- Gasoline power-operated hoists or equipment are not permitted
- Drum hoists must contain no less than four wraps of suspension rope at the lowest point of scaffold travel
- Gears and brakes must be enclosed
- An automatic braking and locking device, in addition to the operating brake, must engage when a hoist makes instantaneous change in momentum or an accelerated overspeed.
- Manually operated hoists used to raise or lower a suspended scaffold must be tested and listed by a qualified testing laboratory
- These hoists require a positive crank force to descend

Welding can be done from suspended scaffolds when:

- A grounding conductor is connected from the scaffold to the structure and is at least the size of the welding lead
- The grounding conductor is not attached in series with the welding process or the work piece
- An insulating material covers the suspension wire rope and extends at least 4 feet (1.2 m) above the hoist
- Insulated protective covers cover the hoist
- The tail line is guided, retained, or both, so that it does not become grounded
- Each suspension rope and any other independent lines are insulated from grounding

## **Access Requirements**

Access will be provided when scaffold platforms are more than 24 inches above or below the point of access. Direct access is acceptable when the scaffold is not more than 14 inches horizontally and not more than 24 inches vertically from the other surfaces. Crossbraces will not be used as a means of access.

Type of accesses which are permitted: portable ladders tied off to the structure; hook-on ladders; attachable ladders; stairways; stair towers; ramps and walkways; or integral prefabricated frames.

When erecting or dismantling supported scaffolds, a safe means of access will be provided when a competent person has determined the feasibility and analyzed the site conditions.

## **FALL PROTECTION**

Fall protection includes guardrail systems and personal fall arrest systems.

### **Guardrails**

All scaffolds more than six feet above the lower level will protect employees with guardrails on each open side of the scaffold. Guardrails will be installed along the open sides and ends before releasing the scaffold for use by the employees, other than erection or dismantling crews.

Guardrails are not required when:

- The front end of all platforms are less than 14 inches from the face of the work
- When employees are plastering and lathing 18 inches or less from the front edge

Materials such as steel or plastic banding will not be used for top rails or mid rails.

### **Fall Arrest Systems**

Personal fall arrest systems include harnesses, components of the harness/belt such as Dee-rings, and snap hooks, lifelines, and anchorage point. Employees working on scaffolds ten (10) feet or more above ground/floor level will use fall protection in accordance with E & B Oilfield Services, Inc.'s Fall Protection Program.

The following chart illustrates the type of fall protection required for specific scaffolds:

<b>Type of Scaffold</b>	<b>Fall Protection Required</b>
Aerial lifts	Personal fall-arrest system
Boatswains' chair	Personal fall-arrest system
Catenary scaffold	Personal fall-arrest system
Crawling board (chicken ladder)	Personal fall-arrest system, or a guardrail system, or a ¾ inch (1.9 cm) diameter grabline or equivalent handhold securely fastened beside each crawling board
Float scaffold	Personal fall-arrest system
Ladder jack scaffold	Personal fall-arrest system
Needle beam scaffold	Personal fall-arrest system
Self-contained scaffold	Both a personal fall-arrest system and a guardrail system
Single-point and two-point suspension scaffolds	Both a personal fall-arrest system and a guardrail system
Supported scaffold	Personal fall-arrest system or guardrail system
All other scaffolds not specified above	Personal fall-arrest system or guardrail systems that meet the required criteria

**Clearance Distances between Scaffolds and Powerlines**

The following table provides the clearance distances between scaffolds and powerlines, or any other conductive material, while being erected, used, dismantled, altered or moved.

<b>Insulated Lines Voltage</b>	<b>Minimum Distance</b>	<b>Alternatives</b>
Less than 300 volts	3 feet	
300 to 50 kv	10 feet	
More than 50 kv	10 feet plus 0.4 inches for each 1 kv over 50 kv	Two times the length of the line insulator, but never less than 10 feet
<b>Uninsulated Lines Voltage</b>	<b>Minimum Distance</b>	<b>Alternatives</b>
Less than 50 kv	10 feet	
More than 50 kv	10 feet plus General Rule: 0.4 inches for each 1 kv over 50 kv	Two times the length of the line insulator, but never less than 10 feet

However, scaffolds can be moved closer if it is necessary for the performance of work, provided the power lines are de-energized or protective coverings are installed to help prevent accidental contact.

**Fall Hazard Assessment**

Job Name:		Location:	
Date Assessed:	Related Operating Procedures Reviewed: <input type="checkbox"/> YES <input type="checkbox"/> NO	Location Marked and Entry Controlled: <input type="checkbox"/> YES <input type="checkbox"/> NO	
<b>FALL HAZARD ASSESSMENT CHECKLIST</b>			
1. Can an employee enter the area without restriction and perform work?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
2. Are fall prevention systems such as cages, guardrails, toeboards, and manlifts in place		<input type="checkbox"/> YES	<input type="checkbox"/> NO
3. Have slipping and tripping hazards been removed or controlled?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
4. Have visual warnings of fall hazards been installed?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
5. Can the distance a worker could fall be reduced by installing platforms, nets etc.?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
6. Are any permanently installed floor coverings, gratings, hatches, or doors missing?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
7. Does the location contain any other recognized safety and or health hazards?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
8. Is the space designated as a Permit Required Confined Space?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
9. Have anchor points been designated and load tested?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
<b>Assessment Information:</b> (indicate specifics with initials)			
Initials	Hazard	Remarks/Recommendations	
	Total potential fall distance:		
	Number of workers involved:		
	Frequency of task:		
	Obtainable anchor point strength:		
	Required anchor point strength: (not less than 5000 lbs)		
<b>Additional Requirements:</b>			
<b>Potential environmental conditions that could impact safety:</b>			
Initials	Condition	Remarks/Recommendations	
<b>Possible required structural alterations:</b>			
Initials	Alteration	Remarks/Recommendations	
<b>Possible task modification that may be required:</b>			
Initials	Task	Remarks/Recommendations	
<b>Training requirements:</b>			
Initials	Requirement	Remarks/Recommendations	
<b>Personal protective equipment required:</b>			
Initials	Requirement	Remarks/Recommendations	
Comments:			
<input type="checkbox"/> <b>Approved</b> <span style="float: right;"><b>AUTHORIZATION:</b></span>			
I certify that I have conducted a Fall Hazard Assessment of the above designated location and have detailed the findings of the assessment on this form. <span style="float: right;">* Further detailed on attachment: <input type="checkbox"/> YES <input type="checkbox"/> NO</span>			
Title:		Date:	Time:
Name:		Signature:	





