

National Manual for Assets and Facilities Management

Volume 10, Chapter 3

Scaffolding Control Management Procedure

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Scaffolding Control Management Procedure

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1.0 PURPOSE

Scaffolding, or other temporary elevated platforms, are commonly used for supporting employees, materials, or both in normal Operations and/or Maintenance activities or functions. Scaffolding is inherently dangerous due many hazards including collapse, falls, dropped objects. Therefore, it is good practice for Entities, and/or their facility management contractors, to implement a procedure to control scaffold management.

2.0 SCOPE

The scope of this procedure is to provide means to the user to create a custom scaffold management procedure outlining and detailing the requirements and responsibilities for erection, modification, repair, inspection, use, and dismantling of scaffolding. This procedure applies to Operations and Maintenance functions and activities performed in government owned facilities throughout the Kingdom of Saudi Arabia.

Specifically, the use of this procedure will guide the Entities, or their responsible facilities management, to complete and document the following tasks:

- Specify the requirements for planning, preparation, and implementation of scaffold management, as well as training for personnel building, using, and dismantling scaffold at Government Facilities.
- Identify the most effective control measures using current international and local standards to enable Facilities to manage the requirements for the safe control and use of scaffolding throughout Government Facilities.

3.0 DEFINITIONS

Definitions	Description
Anchorage point	A secure point of attachment for lifelines, lanyards or deceleration devices
Competent Person	A person who can identify existing and predictable hazards in the surrounding area or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them
Controlled Access Zone	Means an area in which certain work may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and
	access to the zone is controlled.
Entity	Responsible Entity, Company, Contractor, and O&M Subcontractors
Exclusion Zones	Barricaded work areas prohibiting access to personnel not associated with the barricaded activity.
Fabricated Frame Scaffold (Tubular Welded Frame	A scaffold consisting of platforms supported on fabricated end frames with integral posts, horizontal bearers, and intermediate members. Some manufacturers refer to their fabricated frame products as "sectional"
Scaffold) Guardrail System	scaffolding. A barrier consisting of top-rails, mid-rails, toe-board and supporting uprights, erected to prevent workers from falling off an elevated work area and to prevent objects from falling onto workers below.
HSE	Health Safety and Environment
JHA	Job Hazard Analysis
Mobile (Rolling) Scaffold	A powered or unpowered, portable, caster or wheel-mounted, supported scaffold
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
Recognized International Standard	For this procedure, a Recognized International Standard shall mean any or all the following: American Society for Testing and Materials ASTM, British Standards BS, European Norm EN
Scaffold	Any temporary elevated platform (supported or suspended) and it's supporting structure (including anchorage points), used for supporting employees, materials, or both.
Scaffold User	Any personnel whose work requires them to be supported by scaffolding to access the area of a structure where that work is performed.

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Definitions	Description					
Suspension Scaffold	One or more platforms suspended by ropes or other non-rigid means from overhead structures. An adjustable suspension scaffold is a suspension scaffold equipped with a hoist or hoists that can be operated by an employee(s) on the scaffold. Adjustable suspension scaffolds can be single-point, two-point (swing stage) or multi-point.					
System Scaffold	A scaffold consisting of posts with fixed connection points that accept runners, bearers, and diagonals that can be interconnected at predetermined levels.					
Tube and Coupler (or Clamp) Scaffold	A supported or suspended scaffold consisting of platforms supported by tubing, erected with coupling devices connecting uprights, braces, bearers, and runners.					

4.0 REFERENCES

- OSHA 29CFR 1910 Subpart D Walking-Working Surfaces
- OSHA 29CFR 1910 Subpart I Personal Protective Equipment
- OSHA 29CFR 1926 Subpart L Scaffolds
- OSHA 29CFR 1926 Subpart M Fall Protection
- EOM-KSS-PR-000033 Job Hazard Analysis & Pre-Start Briefing Procedure

5.0 RESPONSIBILITIES

5.1 Facility Manager or Contractor Responsible

The Facility Manager is responsible for overall Facility management of the site and monitoring so that the site is following the requirements of this procedure. Other responsibilities include the allocation of sufficient resources to implement, develop, and maintain effective safe, scaffold procedures.

- Responsible for confirming the implementation of the specific requirements of this procedure including the following:
- Confirming that qualified and competent persons are identified and available to oversee scaffolding activities.
- Confirming that competent personnel have identified those scaffolds that require special design or erection techniques.
- Confirming that a process is established to tag and dispose of damaged scaffolding materials.

5.2 Supervisor

The supervisor is responsible for the following:

- Ensuring that the scaffolds are built in compliance with standards, inspected, tagged per the facility scaffold procedure.
- Ensuring scaffold builders are trained in accordance with the facility scaffold procedure.
- Ensuring that damaged scaffolding material is immediately tagged and properly disposed of in a controlled.
- Ensuring that scaffolds are maintained clean and free of debris.
- Ensuring personnel are trained, understand and comply with the facility scaffold procedure.
- Responsible to stop unsafe scaffold use AND notify facility management of safety concerns observed or reported involving the use or alteration of scaffold.
- Ensure identified hazards and associated controls are addressed in the Job Hazard Analysis (JHA) as per EOM-KSS-PR-000033, Job Hazard Analysis & Pre-Start Briefing Procedure.

5.3 Scaffold Competent Person

- Ensure that scaffolds are built per requirements and in accordance with manufacturer's recommended procedures.
- Tagging scaffold per the facility scaffold procedure.
- Ensure that erected scaffolds are inspected per the facility scaffold procedure.



5.4 Responsible HSE Representative

- Reviewing this procedure to be implemented at the Facility.
- Ensuring compliance with this procedure.
- Assessing and auditing compliance with regulatory and Procedural requirements regarding this
 Procedure and the installation and use of scaffolding at Government Facilities.

6.0 REQUIREMENTS

6.1 General

Using this procedure as a guide, Facility Managers or Responsible Contractors shall develop a scaffold procedure for the management, erection, inspection, use and dismantling of scaffolding at the Facility. The procedure shall be submitted to the Responsible HSE representative for review prior to use.

Facility Managers or Responsible Contractor shall work with the Supervisors to establish and document safe working strategies. The procedure shall include general guidelines for balancing the use of scaffold and access equipment, while minimizing obstructions. Where practical, aerial work platforms, also known as an aerial device, elevating work platform, bucket truck or mobile elevating work platform should be used to provide temporary access for people or equipment in lieu of scaffolding. Where the use of an Aerial work platform is not practical or has high risk, scaffolding shall be used and be supported from ground level.

A scaffold material management program shall be implemented and should include capability to manage scaffold component inventories, cost, location of scaffold material by area, and monitor erected scaffolds and inspections by tag. It is not permitted to mix products of different manufacturers (whether tube and coupler or fabricated frame) This SHALL be strictly prohibited unless the mixing of products has been approved in advance, in writing, by each manufacturer.

A system scaffold should be the material of choice due to its flexibility, speed of erection and removal, and ease of visually confirming proper connection of components. Tube and coupler scaffolding would normally be used for nonstandard applications. Fabricated frame scaffold is difficult to handle (end frames can weigh over 22.7 kg and lacks flexibility and this should be considered before using. Each scaffold shall be uniquely numbered. The number should be placed both on the scaffold tag and the request.



Figure 1: Example of a Scaffold Towers used for maintenance

6.2 General Safety Requirements

- Scaffold shall be designed by a qualified person and shall be constructed and loaded in accordance with that design.
- Scaffolds shall be erected, moved, dismantled, or altered only under the supervision and direction
 of a competent person.
- Facilities and entities must develop a plan to verify competency of scaffold craft members through an independent certification and competency testing system.
- Each scaffold and scaffold component must be certified to support without failure its own weight
 and at least four times the maximum intended load applied or transmitted to it. Scaffolds and



scaffold components must not be loaded more than their maximum intended loads or rated capacities, whichever is less. Where it is necessary to load out scaffolds with maintenance materials, the scaffold should be checked daily to ensure that the cumulative loads are within permissible load limits. These checks must be recorded/ logged and be available for any internal or external verification or audit.

- During erection, modification, moving and dismantling of scaffolding the work must be a controlled access zone. A scaffold competent person shall maintain control of these works.
- Before each work shift and after any incident that could affect the structural integrity, a competent
 person must inspect the scaffold and scaffold components for visible defects, and verify it is
 acceptable for continued use. A system of documenting these inspections is required to be kept
 (log sheet).
- All scaffolds, during the erection, operation and dismantling process must have fitted a scaffold
 inspection tagging system. No scaffold shall be left partly erected or dismantled unless adequate
 notices are displayed and any access is blocked.
- Supported scaffold with a height to base width (including outrigger supports, if used) ratio of more than four to one (4:1) shall be restrained from tipping by guy lines, tying bracing or equivalent means of securing.
- Work should not be allowed on scaffolds during adverse weather conditions such as high winds, freezing conditions, heavy rain etc...unless and only after it has been assessed to be safe for employees by the scaffold competent person AND authorized by the supervisor.
- Guardrails, mid-rails and toe boards must be placed on all open sides of platforms more than 1.83 meters above ground or floor.
- Scaffolds must be built as complete as possible. Scaffolds should not block or prevent access to an emergency services or access.
- The use of untagged scaffold is prohibited.
- Height adjusting screws shall only be installed between the baseplate and the vertical frame section. The use of height adjusting screws with casters shall not be allowed. Adjustable screws should not be extended beyond 305 mm.
- High standards and the importance of housekeeping must always be emphasized and maintained on scaffolds. All tools and materials should be removed or secured to remove the potential of a dropped object. Supervisors shall regularly check for this.
- The supervisor must ensure that debris and excess material does not accumulate in quantities that exceed the scaffold intended load bearing capacity or create a fire, trip or other hazards.
- A ladder or stairway shall be provided for proper access and exit and shall be affixed or built into the scaffold and so located that when in use it will not have the tendency to side load the scaffold.
- Scaffolds in use by any persons shall rest upon a suitable footing and shall stand plumb. Casters
 or wheels shall be locked to prevent any sideways movement.
- Employees shall not be allowed to access or "ride" scaffolds while they are being moved, whilst erected, between locations.
- Dismantling of scaffolds shall be carried out by passing of scaffold decking/ material though each
 level of the scaffold and kept within the scaffold frame or "footprint". No scaffold materials SHALL
 be passed outside of the scaffold frame or "footprint", this is to reduce the potential for dropped
 objects and limit potential fall distance to the distance between the two decks.
 - If this method of dismantling scaffold cannot be met, a revision to the JHA will be conducted outlining the steps and controls should reflect the method of dismantling.
- Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design.
- Scaffold erection and dismantling shall conform to scaffold design requirements.
- Openings/Penetrations shall be barricaded to contain items inside the scaffold structure.
- Scaffold erectors working around the floor openings shall be 100% tied off while performing this
 activity per the Fall Protection procedure see EOM-KSS-PR-000005 Fall Protection procedure.
- The use of "Half racks / material baskets" shall be used to lift and remove materials from elevated
 areas. Half racks are to be brought flush against the height of the top handrail at the loading level
 to eliminate workers from hanging over the handrail to load the baskets. By bringing the baskets to
 flush against the top handrail level the worker simply drops the scaffold material into the basket.
 - At no time shall Half Racks Material Baskets be overloaded. The Safe Working Load of the Basket shall be displayed on the basket.
- Marked Exclusion Zones are a mandatory requirement prior to any erection and/or dismantling of
 any scaffolding to account for dropped objects. When practicable, dismantling activities are to be
 scheduled during periods when low or limited pedestrian traffic with the area are limited. Scaffolds



shall be designed by a qualified person and shall be constructed and loaded in accordance with that design.

- Scaffold erection and dismantling shall conform to scaffold design requirements.
- All openings shall be barricaded to contain items inside the scaffold structure.
- Scaffold erectors working around the floor openings shall be 100% tied off while performing this
 activity.
- The use of "Half racks / material baskets" shall be used to lift and remove materials from elevated
 areas. Half racks are to be brought flush against the height of the top handrail at the loading level
 to eliminate workers from hanging over the handrail to load the baskets. By bringing the baskets to
 flush against the top handrail level the worker simply drops the scaffold material into the basket.
- Marked and "Exclusion Zones" with barriers to account for dropped objects is a mandatory requirement prior to any erection or dismantling of any scaffolding. When practicable, dismantling activities are to be scheduled during periods when low or limited pedestrian traffic with the area are limited.
- At no time shall Half Racks Material Baskets be overloaded. The Safe Working Load (SWL) of the Basket shall be displayed on the basket.

6.3 Electrical Clearances

Scaffolding shall not be erected, used, dismantled, altered, or moved in such a way that it, or any conductive material to be handled on them, might come into contact with energized power lines. The recommended clearance between scaffold and power lines shall be as follows:

Insulated		Uninsulated		
Voltage:	Minimum Distance:	Voltage:	Minimum Distance:	
Less than 300 volts	0.9 m	Less than 50 kV.	3.1 m	
300 volts to 50 kV	3.1 m	Less man 50 kv.		
More than 50 kV	3.1 m plus 10mm for each 1 kV over 50 kV.	More than 50 kV.	3.1 m plus 10mm for each 1 kV over 50 kV.	

6.4 Scaffold Inspection

Scaffolds and scaffold components shall be inspected for visible defects by a competent person before each work shift, and after any occurrence that could affect a scaffold's structural integrity. Any defective components shall be immediately quarantined and marked "unfit for use".

The scaffold supervisor, or designee, shall also inspect scaffold components before erecting and while dismantling. Scaffold components must be straight and free from bends, kinks, dents, and severe rusting. Any defective components shall be immediately discarded. Inspections shall include the following components:

- Handrails, mid-rails, cross bracing and steel tubing for nicks and other damage, especially near the center span.
- Weld zones on the scaffold frame for cracks.
- Ends of tubing for splits or cracks.
- Manufactured decks for loose bolts or rivet connections and bends, kinks, or dents.
- Plywood surfaces for softening due to rot or wear and for peeling at the edges of laminated layers.
- Scaffold planks for rot, cracks, cuts, and other external damage.
- Tie rods or bolts and angle iron cleats.
- Cams, springs, threaded connections, clamps, toggle pins, or other quick connecting devices.
- Casters for rough rolling surfaces, sticky swivels, and defective locks.

Scaffolding and scaffold components shall be maintained in accordance with the manufacturer's instructions. Ensure servicing of fittings with manufacturer approved lubricant. Ensure tubes and planks that are partially damaged are cut to usable lengths. All scaffolds, working platforms and mobile towers must be inspected:

- Before being taken into use for the first time.
- After any modification or other approved alteration.
- After any event or incident likely to have affected its strength or stability.

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At regular intervals not exceeding 7 days.

6.5 Scaffold Tagging

Scaffolds and scaffold components shall be inspected for visible defects by a competent person before each work shift, and after any occurrence that could affect a scaffold's structural integrity. Any defective components shall be immediately quarantined and marked "unfit for use".

The scaffold supervisor, or designee, shall also inspect scaffold components before erecting and while dismantling. Scaffold components must be straight and free from bends, kinks, dents, and severe rusting. Any defective components shall be immediately discarded. Inspections shall include the following components:

- Handrails, mid-rails, cross bracing and steel tubing for nicks and other damage, especially near the center span.
- Weld zones on the scaffold frame for cracks.
- · Ends of tubing for splits or cracks.
- Manufactured decks for loose bolts or rivet connections and bends, kinks, or dents.
- Plywood surfaces for softening due to rot or wear and for peeling at the edges of laminated layers.
- Scaffold planks for rot, cracks, cuts, and other external damage.
- Tie rods or bolts and angle iron cleats.
- Cams, springs, threaded connections, clamps, toggle pins, or other quick connecting devices.
- Casters for rough rolling surfaces, sticky swivels, and defective locks.

Scaffolding and scaffold components shall be maintained in accordance with the manufacturers' instructions. Ensure servicing of fittings with manufacturer approved lubricant. Ensure tubes and planks that are partially damaged are cut to usable lengths. All scaffolds, working platforms and mobile towers must be inspected:

- · Before being taken into use for the first time.
- After any modification or other approved alteration.
- After any event or incident likely to have affected its strength or stability.
- At regular intervals not exceeding 7 days.





Figure 2: Examples of tags.

6.6 Load Rating

All erected **scaffolds** must be load rated for the intended designed load, the rating should be clearly marked on the scaffold tag. Only when the Facility or entity does not have more stringent requirements the following maximum loading of scaffolds shall be as per the following classes:

- Light duty: Scaffold is designed and erected to carry a uniformly distributed maximum load of (1.5Kn/m2) –Light maintenance work when the scaffold is only intended to carry the weight of personnel. No material storage other than hand tools.
- General purpose scaffold: Medium maintenance work where the scaffold is designed and erected
 to carry a uniformly distributed maximum load of (2.0Kn/m2) general building maintenance work,
 with some materials and tools.
- Heavy duty scaffold: Scaffold is designed and erected to carry a uniformly distributed maximum load of (2.5Kn/m2) – Heavy maintenance work with materials tools and other personnel.

Always follow load rating on scaffolding.



7.0 SCAFFOLD TYPES

7.1 Engineer Designed Scaffolds

As a minimum, the following scaffold types shall require a certified engineer's approval of the design before construction:

- Free Standing Tower Scaffolds where the height exceeds three (3) times its base width and guy lines are used.
- Spur, canter levered and drop scaffolds.
- Suspended scaffold includes any structure supported from needles.
- Suspended scaffolds shall comply with the relevant International Standards and be supplied with clear instructions about the safe configuration for erection and the intended uses.

Copies of the drawings and engineer approval shall be provided to the company. Each scaffolding hoist and protective device shall be fitted with a data plate that is permanently and legibly marked with details of correct use. Data plates for scaffolding hoists and protective devices should include:

- Type
- Model
- Serial number
- Name or identification mark of the manufacturer
- Details of steel wire rope to be used, including nominal diameter, grade and construction
- Rated load of hoist
- Revving requirements, where applicable
- Power supply requirements, where applicable

Each type of cradle and boatswain chair shall be tested by a competent person. A copy of the test reports shall be retained for the design life of the equipment.

7.2 Mobile Scaffolds

Mobile scaffolding shall not exceed three times the least base width in height except for mobile aluminum scaffolding, which shall not exceed two times the least base width in height. All mobile scaffolding shall be tied off or otherwise adequately braced with wheels locked when not being moved and prior to use. All mobile scaffolds shall be fitted with access ladders in accordance with manufacturer recommendations and the Occupational Safety and Health Regulations. Mobile scaffolds shall be secure and stable when in use.

7.3 Open Tube & Clamp Scaffold

Also, called tube and coupler / tube and fitting, is a versatile type of scaffold consisting of steel tubes and clamps. Vertical tubes are connected to horizontal tubes via right angle clamps. Diagonal tubes are periodically connected to the scaffold via swivel clamps to stabilize the scaffold. This type of scaffold is generally used where unlimited versatility is required. Horizontal tubes (and thus walking-decks) can be placed at any height along the vertical tube (as permitted by engineering constraints and manufacturers guidelines), and vertical tubes, or legs, can be spaced at any distance apart, up to the maximum distance allowed (by engineering constraints).

7.4 System Scaffold

Is made up of different sized vertical posts and horizontal and diagonal tubes. The vertical posts have fixed connection points spaced at regular intervals to which can quickly connect the horizontal and diagonal tubes, and can be used as an alternative to traditional 'Open Tube & Clamp'. Additionally, System scaffold will also use a latch mechanism of free bearing joints.

The interlocking components on system scaffold will form standardized bays; however, these can be adapted to form various structures such as cantilevers, protection fans, saddles and bridged sections to suit site needs.



The main advantages of system scaffold are that there are no protruding tubes leaving a flush finish; all working lifts are boarded, and more importantly, it is faster to erect, dismantle or adapt. System scaffolds are usually referred to by the Manufacturer's names (i.e. such as "Twistlock", "Cuplock", "Ringlock", "Kwikstage").

7.4.1 Standards (Uprights)

Standards are the vertical tubular members that transmit the vertical loads of the scaffold to the foundations. The spacing between standards should follow manufacturer's instructions.

7.4.2 Transoms (Bearers)

Run at right angles to the structure, joining the inside and outside ledgers and supporting the scaffold boards. Intermediate transoms may be required in some cases to support the platform between main transoms.

7.4.3 Ledgers (Runner)

Ledgers run along the inside and outside of the scaffolding joining each pair of standards to another pair; they also support any intermediate transoms.

7.5 Scaffold Access

Ladder access shall be internal and have landings at intermediate levels (there shall be a landing or reversal platform at each 4-meter lift.

- Where the only option is an external ladder access, a secondary means of fall protection shall be used; e.g., side rail on the ladder, or fall arrester attached to the top of the staging, secured in an approved manner.
- No ladder used for access shall exceed 6 meters.
- The use of portable ladders for external scaffold access shall comply with regulatory standards for scaffolding.
- Ladders shall be braced at a maximum of 3 meter intervals to prevent undue movement.
- Every ladder access to scaffold work platforms is to be provided with a self-closing guard rail gate.
- A second means of access and Emergency egress shall be considered when designing multi-level scaffolds or large scaffold platforms to support several workers, regarding the installation of additional access and egress, stair towers, ladders, or designated emergency egress ladders to provide direct access to the ground.
- Every ladder shall project at least 1 meter above a work platform level or any place used as a landing place for workmen or other persons.
- Ladders extending more than 1 meter above a landing shall be braced above the landing or securely fixed at the base to prevent tipping.
- The supervisor shall ensure that where multi-level scaffolds are erected, the accesses to each level shall be near one another. Where the access from one area to another is separated by pipes, beams, etc. The scaffold erector shall, wherever practicable, bridge these obstructions to ensure safe access.

7.6 Working Platforms

The following are the minimum requirements of a working platform, unless stricter requirements are detailed in local regulatory standards or documents:

- The minimum width of working platform shall be no less than 675 mm for persons, hand tools and materials or no less than 450 mm for persons and hand tools only.
- The slope of the working platform does not exceed 7°.
- The scaffold planks overhang their supports by a minimum of 150 mm and a maximum of 250 mm.
- Form-ply is prohibited from use as part of a working platform.
- Guardrails, mid-rails and toe-boards are fixed to open edges of the working platforms.
- Plans are to be closely laid.



- Working platforms shall be level and free of trip hazards. Boards are to be butt ended rather than lapped.
- Planks forming part of the working platform shall be securely lashed to their supports by wire line lashing.
- Any potential hazards (e.g., beams or tubes passing though or above working platforms, steps or different levels in working platforms) on or above the working platform is highlighted with tiger striped tape (i.e., yellow and black).
- Where coupler fitting bolts protrude into access ways or work platforms, they shall be securely padded and taped to prevent injury.
- Where persons are required to work, or pass under a scaffold, scaffolds shall be provided with a No. 18, 1.3 cm wire mesh or equivalent (e.g., synthetic netting), between toe board and the top rail. This netting must be attached in such a way as to be secure and strong enough to hold expected load requirements. Barricades may be substituted.
- Protective screens or guards shall be installed where equipment or materials may be dislodged off scaffolds, to prevent such dislodgement.
- Prior to the use of ply to cover penetrations on a work platform, the supervisor will, verify that the
 ply to be used has the same structural integrity as the scaffold planks, and meets the for-impact
 test determination. Where ply is used, it shall not create a trip hazard. An engineer should be
 engaged for this calculation/determination.
- Work platforms shall be constructed in a manner that ensures penetrations are covered or surrounded by guard-rails, mid-rails and toe-boards.

7.7 Scaffold Tubes, Fittings and Lumber Requirements

- Scaffold tubes and fittings shall be manufactured in accordance with a recognized international standard and as per the corresponding paragraph number, facilities and entities must develop a verification system to ensure this requirement is met through procurement certificates for each shipment, and by independent third party testing. Records of certificates and testing reports must be maintained. No certificate or testing report means equipment unfit for purpose and marked "out of service".
- All members of the scaffolds must be permanently marked with the corresponding certificate numbers.
- Solid swan wood planks shall be of a scaffold plank grade and meet a recognized international standard, laminated veneer lumber planks shall be PROOF TESTED SCAFFOLD PLANK and OSHA approved and shall be marked accordingly.
- Scaffold planks must be inspected for signs of damage or deterioration, planks must be stored and be free of any chemical such as oil, paint, organic cleaners, etc.

7.8 Cutting Scaffolding Tubes

Where scaffold tubes are required to be cut, they shall be cut by means of drop saws or other abrasive cutting mediums. The cutting of tubes using flame cutting (oxy/acetylene) is not acceptable.

7.9 Damaged Equipment

Damaged scaffolding components shall be tagged "Out of Service" and reported to the scaffolding supervisor, and disposed of by end of shift. Under no circumstances shall any damaged or substandard scaffolding components be used.

8.0 TRAINING

Persons assigned to erect, modify, repair, or dismantle scaffolding shall be trained. Scaffold users shall be trained in the hazards associated with the various types of scaffold and understand the procedures to control or minimize these hazards. Training shall include:

- Scaffold tagging system
- Pre-use inspection
- Electrical, fall, and falling object hazards in the work area, and how to deal with these hazards

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- Fall and falling object protection systems
- · Proper use and maximum intended load of scaffold
- Training shall be documented and records kept.

Depending on the type of scaffolding being erected, dismantled, or modified personnel shall be trained a certified for the type of scaffold they are tasked to erect or dismantle.

Scaffolding is high risk activity and therefore requires certification of individuals based on the type of scaffold being built, dismantled or modified. Each Contractor shall ensure that personnel are trained and have been deemed competent before commencing any scaffold work.

9.0 MONITORING AND EVALUATION

Routine assessments and monitoring of scaffold operations shall be performed by the responsible, assigned, the Facility Responsible HSE representative or designee, and the responsible Superintendent. The Scaffold HSE Assessment Checklist in Attachments should be used. The responsible HSE representative shall conduct quarterly assessments on the Scaffolding procedure.

Responsible HSE representative

The results/findings of the assessments shall be documented and non-compliances will be immediately addressed by responsible subcontractor. Findings of assessments shall be formally transmitted to the responsible parties.

10.0 ATTACHMENTS

1. Attachment 1 - EOM-KSS-TP-000029 - HSSE Compliance Assessment Sheet Template



Attachment 1 - EOM-KSS-TP-000029 - HSSE Compliance Assessment Sheet Template

DIRECTIONS: Check either "YES," "NO," or "N/A." If corrective action is required, answer "NO." For every "NO" answer, provide a brief description of the issue in the "COMMENTS" column. Add the finding / issue to the HSE Tracking Register.

issue to the HSE Tracking Register.					
	N. COAFFOLDING		NSWE	R	
No.	SCAFFOLDING	YES	NO	N/A	COMMENTS
1.	Does the Site Manager assign direct accountability				
	for scaffold and access management to a site sponsor				
	(preferably the Field Superintendent)?				
2.	Does the Site Sponsor/PFS ensure that safe access is				
3.	provided to the craft workers? Does the Site Sponsor/PFS confirm that scaffold				
ა.	users are trained in the hazards related to work on				
	scaffolds?				
4.	Does the Responsible Superintendent confirm a				
	qualified and competent person is identified and				
	available to oversee scaffolding activities under his/her purview?				
5.	Does the Responsible Superintendent identify those				
J.	scaffolds that require special design or erection				
	techniques?			1	
6.	Does the Responsible Superintendent maintain the		/	U/I	
7	required scaffold tracking database or system? Does the Responsible Superintendent supervise the	1	1/1		
7.	ordering, handling, storing, disposal and overall	(1)	////		
	management of scaffold material?	11/	11/7		
8.	Does the Responsible Supervisor ensure that the		\vee		
	scaffolds are built complete and in a safe manner	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			
	including material passing, use of material baskets				
	barricading, exclusion zone (2 to 1 ratio) the proper inspection upon completion, and regular inspections				
	up to dismantling?				
9.	Does the Responsible Supervisor ensure that the				
	appropriate tag is attached and signed off for each				
10	scaffold?				
10.	Does the Responsible Supervisor ensure that scaffold builders are adequately trained for their assigned				
	tasks?				
11.	Does the scaffold Competent Person ensure that				
	scaffolds are built per requirements, are properly				
	tagged and that all erected scaffolds are inspected at the commencement of each shift?				
12.	Do Superintendents/ Supervisors ensure that all				
12.	employees understand and comply with				
	requirements regarding the safe use of scaffolding				
	including scaffold tagging, scaffold inspection and fall				
40	protection?				
13.	Are scaffold users trained in the hazards associated with the various types of scaffold, and do they				
	understand the procedures to control or minimize				
	these hazards?				
14	Does scaffold training include information on				
	electrical, fall and falling object hazards in the work area, and how to deal with these hazards?				
15	Does scaffold training include information on falls				
	and falling object protection systems?				
16	Does scaffold training include information on the				
4=	proper use and maximum intended load of scaffolds?				
17	Has a system for documenting scaffold inspections (log sheet) been implemented?				
18	Are any defective components discovered during				
10	inspections immediately discarded?				
	, ,				



DIRECTIONS: Check either "YES," "NO," or "N/A." If corrective action is required, answer "NO." For every "NO" answer, provide a brief description of the issue in the "COMMENTS" column. Add the finding / issue to the HSE Tracking Register.

			NSWE	R	
No.	SCAFFOLDING	YES	NO	N/A	COMMENTS
19	Do all scaffolds comply with site requirements, as well as any applicable federal and/or local requirements?				
20	Are scaffolds designed by a qualified person and constructed/loaded in accordance with applicable regulatory requirements/criteria?				
21	Where applicable (i.e., under regulatory guidelines), are tube and coupler and fabricated frame scaffolds over 38 m in height designed by a registered Professional Engineer?				
22	Where applicable (i.e., under regulatory guidelines), are pole scaffolds designed by a registered Professional Engineer?				
23	Are scaffolds erected, moved, dismantled or altered only under the supervision and direction of a Competent Person qualified in scaffold erection, moving, dismantling or alteration?			<u>N</u>	
24.	Are scaffolds erected, moved, dismantled or altered only by experienced and trained employees selected for such work by the Competent Person?	M		5 \	
25	Where used, are adjustable suspension scaffolds subject to the same tagging and inspection requirements as supported scaffolds?	70			
26	Are materials evenly distributed on platforms and not concentrated in one area?				
27	Does the Facility ensure that access platforms are not used to store heavy materials such as cable, valves, blind flanges, etc.?				
28	Does the Facility utilize the mandatory scaffold tagging program?				
29	Does the Competent Person tag all scaffolds?				
30	Does the Facility ensure that no personnel work from an untagged scaffold?				
31	Are untagged scaffolds considered "off-limits" to all personnel (except those authorized to erect, dismantle or make repairs to scaffolds)?				
32	Does the Facility ensure that the scaffold tagging procedures are not used as a substitution to build a complete scaffold (i.e., scaffold must be built as completely as possible)?				
33	During dismantling process for scaffolds are all scaffold items disassembled inside the scaffold structure (i.e. no scaffold items are passed on the outside of the scaffold structure. Are the scaffold crew using approved material baskets / half racks to lower equipment to ground level				
34	During scaffold construction, modification or dismantling activities is the required barricading / exclusion zone in place and to the required 2 to 1 ratio. Or has a risk assessment been completed				