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Project Scaffolding Control Management Procedure

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Project Scaffolding Control Management Procedure

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Project Scaffolding Control Management Procedure

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Project Scaffolding Control Management Procedure

1.0 PURPOSE

The purpose of this procedure is to detail the requirements and responsibilities for scaffold management, erection, modification, repair, inspection, use and dismantling.

Projects shall utilize this Procedure and all Local Relevant Standards.

The aim of this procedure is as follows:

- Assist in the elimination or reduction of workplace illnesses and injuries by defining the Project's requirements for scaffolding safety.
- Specify the Project requirements for planning, preparation, and implementation of scaffold requirements, as well as training for personnel building, using, and dismantling scaffold.

The most effective control in the reduction of risk of injury or illness is elimination of hazards or substitution of materials and methods to prevent the risk of exposure. However, if this is not possible, additional engineering and administrative controls shall be planned and implemented to provide safe work methods and safe working conditions.

2.0 SCOPE

The scope of this procedure applies to all works performed under all Government Construction Contracts executed throughout the Kingdom of Saudi Arabia.

3.0 DEFINITIONS

Definitions	Description
Anchorage	A secure point of attachment for lifelines, lanyards or deceleration devices
Body Harness	Straps that secure about the employee in a manner to distribute the fall arrest forces over at least the thighs, pelvis, waist, chest, and shoulders, with a means for attaching the harness to other components of a personal fall protection system.
Controlled Access Zone	Means an area in which certain work (e.g., overhand bricklaying) may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled.
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
Guardrail System	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
Fabricated Frame Scaffold (Tubular Welded Frame Scaffold)	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" scaffolding.
JHA	Job Hazard Analysis
Mobile (Rolling) Scaffold	A powered or unpowered, portable, caster or wheel-mounted, supported scaffold are a type of supported scaffold and designed to be easily moved from one place to another.



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Definitions	Description
Qualified Person	One who by extensive knowledge, training, and experience is competent in administering the respiratory protection program (i.e., the HSSE Representative).
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
Responsible Entity	Responsible Entity, Company, Contractor, and Project Subcontractors
Scaffold	Any temporary elevated platform (supported or suspended) and its supporting structure (including points of anchorage), 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.
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.
SWL	Safe Working Load
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.
VOC	Verification of Competency
OSHA	Occupational Safety and Health Administration
HSSE	Health, Safety, Security and Environment
WMS	Work Method Statements
STARRT	Safe Task Analysis and Risk Reduction Talk
PPE	Personal Protective Equipment
SWL	Safe Working Load (Max load capacity due to configuration)
NDT	Non-destructive testing

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
- EPM-KSS-PR-000001 Project General Safe Working Requirements Procedure
- EPM-KSS-PR-000002 Project Housekeeping Requirements Procedure
- EPM-KSS-PR-000003 Project Personal Protective Equipment Procedure
- EPM-KSS-PR-000005 Project Fall Protection Procedure.
- EPM-KSS-PR-000006 Project Barricades and Signs Procedure
- EPM-KSS-PR-000014 Project Emergency Preparedness Procedure
- EPM-KSS-PR-000015 Project Suspended Personnel Platform Procedure
- EPM-KSS-PR-000027 Project Manual Material Handling Procedure

5.0 RESPONSIBILITIES



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Leadership is the single largest factor for success in the establishment of an injury-free workplace. By their actions, leaders cascade, manage and drive execution, reinforce the safety culture, instill operational discipline, and work to ensure that the entire workforce complies with safety and health requirements.

A commitment to working injury-free is required of all Project personnel. The individual actions of leaders and workers establish and reinforce the safe work execution and compliance with HSSE requirements Contractor Senior Project Manager.

5.1 Project Site Manager

The Site Manager is responsible for overall construction 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.

5.2 Responsible Superintendent

The Responsible Superintendent is responsible for confirming the implementation of the specific requirements of this procedure including the following:

- Confirming that qualified and competent persons are identified by the subcontractor and available to oversee scaffolding activities.
- Confirming that Responsible 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.

5.3 Scaffold Erection Supervisor

The scaffold erection supervisor is responsible for the following:

- Ensuring that the scaffolds are built complete and in a safe manner including the proper inspection upon completion, and regular inspections up to dismantling.
- Ensuring the appropriate tag is attached and signed off for each scaffold.
- Ensuring scaffold builders are adequately trained for their assigned tasks.
- Assignment of scaffold erection manpower and ensuring that crews meet production expectations.
- Ensuring that damaged scaffolding material is immediately tagged and properly disposed of.
- Ensuring that scaffolds are maintained clean and free of debris during work and when task is complete.
- Ensuring personnel understand and comply with Project requirements regarding the safe use of scaffolding, including scaffold tagging, scaffold inspection, and fall protection
- Ensuring work crews understand and comply with Project requirements regarding safe use of scaffolding including scaffold tagging, scaffold inspection, and fall protection. Responsible to notify Discipline Superintendent of any safety concerns observed or reported involving the use or alteration of scaffold.

5.4 Scaffold Competent Person

The scaffold competent person (typically one or more of the scaffold erection foremen) shall ensure that scaffolds are built per requirements, in accordance with manufacturer's recommended procedures, properly tagged, and all erected scaffolds are inspected at the commencement of each shift.

5.5 Site HSE Manager

The Contractor Site HSE Manager is responsible for:

- Reviewing subcontractor scaffold procedures to be implemented on the Project.



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- Assessing and auditing compliance with regulatory and Project requirements regarding the installation and use of scaffolding on the Project.

6.0 RISK ASSESSMENT

An integral aspect of the work planning process is the performance of a proper risk assessment. Risk Assessments must be conducted at the Planning Stage to identify the hazard risks and determine control measures.

The Risk Assessments that shall be conducted at the Planning Stage are as follows:

- Project Risk Assessment.
- Work Method Statements (WMS)
- Job Hazard Analysis (JHA).
- Safe Task Analysis and Risk Reduction Talk (STARRT).

It is imperative that prior to beginning any work activity, a STARRT briefing occurs to discuss the contents of the WMS/JHA which includes mitigations for any other hazards noted by the crew at the jobsite. The discussion shall also include job steps, expected hazards associated with the activity, and the mitigation and protection methods that shall be implemented to prevent incidents.

The Hierarchy of hazards control shall be used to reduce the likelihood of an incident occurring.

- **Elimination** (Remove the Hazard)
- **Substitution/Isolation** (Replacing material, process or hazard with a lower risk one/separate people from the hazard, use suitable guarding, distance, etc.)
- **Engineering Controls** (Redesign or replacement of plant and equipment, Isolate People from the hazards)
- **Administration Controls** (Procedures, training, signage, change the way people work)
- **PPE** - Protect the Worker with PERSONAL PROTECTIVE EQUIPMENT

No work is to commence until the above has been implemented and signed by the relevant Supervisor in charge.

7.0 REQUIREMENTS

7.1 General

Responsible Contractors shall develop a scaffold procedure for the management, installation, inspection, use and dismantling of scaffolding on the Project. The procedure shall be submitted to the Site HSE Manager for review prior to use.

Responsible Contractor shall work with the Superintendents, to establish safe work access strategies. It shall include general guidelines for balancing the use of scaffold and access equipment, while maintaining the maximum practical workspace. Where practical, elevating work platforms and mast climbers should be used in paved areas to access lower elevations and scaffolds should be erected starting from the first elevation of steel, not the ground, keeping the ground level clear for movement of personnel and materials. Where elevating work platforms and mast climbers are not practical, or where a risk assessment indicates that installation of scaffolding supported by various levels of steel structure has a high residual risk after considering possible controls, scaffolding shall 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.

Mingling or mixing of products of different manufacturers (whether tube and coupler or fabricated frame) is strictly prohibited unless the mixing of products has been approved in advance, in writing, by each



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manufacturer. A system scaffold is 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 (e.g., by area/unit/structure or equipment). The number should be placed both on the scaffold tag and the request. The Scaffold competent person shall inspect each new scaffold, as well as all existing scaffolds, prior to use at the start of each shift. A system of documenting these inspections is required (log sheet).

Where construction formwork includes the installation of work platforms, or where manufactured designed platforms are incorporated into the manufactured formwork, the formwork shall meet the relevant standards requirements and the work platforms are to be inspected and tagged as described in this procedure.

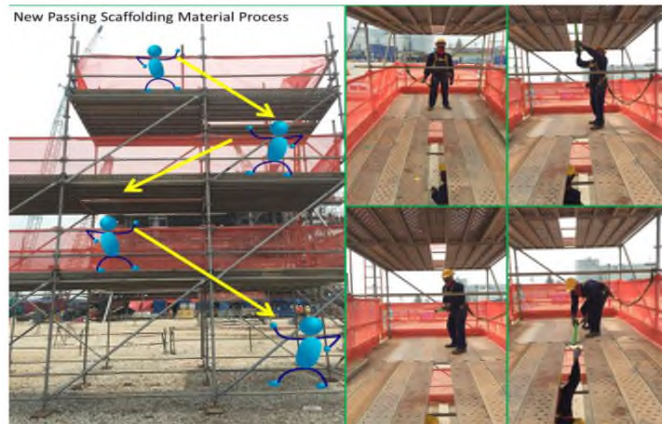
7.2 General Safety Requirements

- 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 by a trained and 3rd party certified scaffold erector under the supervision and direction of a competent person. Projects and entities must develop a plan to verify competency of scaffold craft members through independent certification and competency testing system.
- Each scaffold and scaffold component must 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 bricks, cement and other materials, the scaffold should be checked daily to ensure that the loads are within permissible limits. These checks must be recorded and be available for any internal or external audit.
- During erection, modification, moving and dismantling of scaffolding the work area must be a controlled access zone. A (scaffold) competent supervisor shall maintain control of these works.
- Before each work shift and after any occurrence that could affect the structural integrity, a competent person must inspect the scaffold and scaffold components for visible defects, and sign scaffold structure off as acceptable.
- 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 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 guying, tying bracing or equivalent means.
- Scaffolds shall be clear of any slippery surface.
- Work should not be allowed on scaffolds during adverse weather conditions unless authorized by a competent person and it is assessed to be safe for employees.
- Guardrails, mid-rails and toe boards must be placed on all open sides of platforms more than 1.83 m above ground or floor.
- All scaffolds must be built as complete as possible. All guardrails and toe boards shall be securely fastened.
- Scaffolds should not block or prevent access to an emergency services or access.
- Projects must prohibit the use of untagged scaffold.
- Scaffold erectors shall comply with fall protection requirements outlined in EPM-KSS-PR-000005 Project Fall Protection and Prevention.
- Adjusting screws shall only be installed between the baseplate and the vertical frame section. The use of adjusting screws with casters shall not be allowed. Adjustable screws should not be extended beyond 305 mm.
- Scaffold components fabricated by different manufacturers should not be intermixed.
- High standards of housekeeping must be maintained on scaffolds, all tools and materials should be removed or secured to prevent accidental falling.
- The work supervisor must ensure that debris and material does not accumulate in quantities that exceed the scaffold intended load bearing capacity or create a fire, tripping or other similar hazards.



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- 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 tip 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 movement.
- Employees shall not be allowed on scaffolds while they are being moved from one location to another.
- Dismantling of scaffolds shall be carried out by passing of scaffold decking/ material through each level of the scaffold to prevent scaffold materials being passed outside of the scaffold frame, this is to reduce dropped objects and limit potential fall distance to the distance between the two decks. If this method of dismantling scaffold cannot be met, then a risk assessment outlining the steps and controls shall be completed.
- 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.
- "Exclusion Zones" for dropped objects are mandatory to be erected prior to any dismantling of any scaffolding. When practicable, dismantling activities are to be scheduled during periods when 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.



Example of the Scaffold Dismantling Process



Example of the use of "Half Racks / Material Baskets"



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7.3 Clearances

The clearance between scaffolds and power lines shall be as follows. Scaffolds shall not be erected, used, dismantled, altered, or moved such that they are or any conductive material handled on them might come closer to exposed and energized power lines than 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		
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.

7.4 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 discarded.

The scaffold supervisor, or designee, shall 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, midrails, 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 alteration.
- After any event, likely to have affected its strength or stability.
- At regular intervals not exceeding 7 days.

7.5 Scaffold Tagging

The use of scaffold tagging is mandatory. A competent person shall tag all scaffolds. No one shall work from an untagged scaffold. Untagged scaffolds shall be "off limits" to all personnel not authorized to erect, dismantle or make repairs to scaffolds.



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Scaffold tagging procedures shall not be used as a substitution to building a complete scaffold. Scaffolds shall be built as completely as possible.

The scaffold tagging system shall include:

- **Green Tag** – To be placed in scaffolds at the access points that comply with all Contractor and regulatory requirements
- **Yellow Tag** – To be placed on scaffolds that are structurally sound, but an accessory such as a handrail cannot be installed due to the location of the scaffold, or the nature of the work that is to be performed. Fall protection is required on all yellow-tagged scaffolds
- **Red Tag** – To be placed on scaffolds that are damaged, defective, being constructed or dismantled where no access is permitted by personnel not authorized to erect, dismantle or make repairs to scaffolds and in a visible location, preferably at the access points. Scaffold tags will be removed from the holder to indicate that the scaffold is not to be used.

Examples of the tags can be found in the attachments.

7.6 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 project 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) –plastering, painting, glazing and pointing the scaffold is only intended to carry the weight of personnel. No material storage other than hand tools.
- **General purpose scaffold:** Scaffold is designed and erected to carry a uniformly distributed maximum load of (2.0Kn/m²) – general construction work, rendering, plastering.
- **Heavy duty scaffold:** Scaffold is designed and erected to carry a uniformly distributed maximum load of (2.5Kn/m²)– block work, brickwork, heavy cladding.

8.0 SCAFFOLDS

8.1 Engineer Designed Scaffolds

As a minimum, the following standards 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 ropes are used.
- Spur, cantilevered and drop scaffolds.
- Suspended scaffold – includes any structure supported from needles and includes boatswain's chairs.

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.

Associated electrical equipment shall comply with the relevant legislative requirements.

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.



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- 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.
- Revvng 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 report shall be retained for the design life of the equipment.

8.2 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. 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.

8.3 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 vertical tubes, or legs, can be spaced at any distance apart, up to the maximum distance allowed (by engineering constraints).

8.4 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").

8.4.1 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.

8.4.2 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.



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8.4.3 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.

8.5 Access

All 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 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.
- All 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 or drop bar, at each work platform level.
- 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 Contractor 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 Subcontractor shall wherever practicable bridge these obstructions to ensure safe access at all times.

8.6 Working Platforms

The following are the minimum requirements of a working platform for all locations, 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 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 all open edges of the working platforms.
- All planks are to be closely laid.
- Boards are to be butt ended rather than lapped. Working platforms shall be level and free of trip hazards.
- All planks forming part of the working platform shall be securely lashed to their supports by wire rope lashing.
- Any potential hazard on or above the working platform is highlighted with tiger striped tape (yellow and black); i.e., beams or tubes passing through or above working platforms, steps or different levels in working platforms). 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 (i.e., 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 if necessary.



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- 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 Risk Assessment will, formally 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.
- All work platforms shall be constructed in a manner that ensures all penetrations are covered or surrounded by guard-rails, mid-rails and toe-boards.

8.7 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, projects 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.
- All members of the scaffolds must be permanently marked with the corresponding standard.
- 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 and shall be marked accordingly.
- Scaffold planks must be inspected for any signs of damage or deterioration, planks must be stored properly and be free of any chemical such as oil, paint, organic cleaners, etc.

8.8 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.

8.9 Damaged Equipment

Any damaged scaffolding component shall be tagged Out of Service and reported to the scaffolding supervisor/foreman. Under no circumstances shall damage or substandard scaffolding components be used at any time.

8.10 NDT Work off Scaffolds

The Responsible scaffolding supervisor is responsible for the inspection and approval of all scaffolds to be used for the Night Shift NDT (Non-destructive testing work). These inspections shall include the provisioning of gin wheels for elevating and lowering equipment safely and the instillation of adequate lighting to safely perform the required tasks.

9.0 TRAINING

Persons assigned to erect, modify, repair, or dismantle scaffolding shall be appropriately trained and 3rd Party Certified. Scaffolders will have Copies of training verification shall be maintained by the employing subcontractor and made available for audit when required.

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
- Fall and falling object protection systems
- Proper use and maximum intended load of scaffold
- All training shall be documented.



Project Scaffolding Control Management Procedure

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

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

10.0 MONITORING AND EVALUATION

Routine assessments and monitoring of scaffold operations shall be performed by the responsible, assigned, the Project HSE Manager or designee, and the responsible Superintendent. The Scaffold HSE Assessment Checklist in Attachments shall be used.

The Contractor Project HSE Manager and/or delegated members of the HSE Department shall conduct quarterly formal audits of the Project's compliance with this procedure.

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

11.0 ATTACHMENTS

1. Project Scaffold Tag Samples
2. EPM-KSS-TP-000035 - HSSE Compliance Assessment Sheet Template

[illegible]

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Project Scaffolding Control Management Procedure

Red Scaffold Safety Tag



This tag must be attached to a scaffold which is partially erected or dismantled, or which is found to be defective or damaged in any way. Employees are prohibited from using this scaffold for any reason when this tag is displayed. Only authorized employees assigned to erect, dismantle, or make repairs to this scaffold are allowed on this scaffold. Authorized employees shall be required to wear and use all required personal protective equipment.



Project Scaffolding Control Management Procedure

Sample Scaffold Tag and Holder



Other type example used in the scaffold industry. These are commonly known as Scaff tags



Project Scaffolding Control Management Procedure

Attachment 2 - EPM-KSS-TP-000035 - 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.

No.	SCAFFOLDING	ANSWER			COMMENTS
		YES	NO	N/A	
1.	Does the Site Manager assign direct accountability for scaffold and access management to a site sponsor (preferably the Project Field Superintendent)?				
2.	Does the Site Sponsor/PFS ensure that safe access is provided to the craft workers?				
3.	Does the Site Sponsor/PFS confirm that scaffold 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 scaffolds that require special design or erection techniques?				
6.	Does the Responsible Superintendent maintain the required scaffold tracking database or system?				
7.	Does the Responsible Superintendent supervise the ordering, handling, storing, disposal and overall management of scaffold material?				
8.	Does the Responsible Supervisor ensure that the 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 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 employees understand and comply with project requirements regarding the safe use of scaffolding including scaffold tagging, scaffold inspection and fall 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 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 inspections immediately discarded?				