

GENERAL INSTRUCTION MANUAL

8.001

ISSUING ORG. LOSS PREVENTION DEPARTMENT

ISSUE DATE
12/11/2016REPLACES
10/01/2011

SUBJECT SAFETY REQUIREMENTS FOR SCAFFOLDS

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1.0 PURPOSE

This General Instruction (GI) provides minimum administrative requirements for the safe design, erection, supervision, inspection, alteration, and dismantling of stationary and mobile scaffolds with fixed platform heights.

2.0 SCOPE

All Saudi Aramco (SA) departments shall apply this instruction to all scaffolds used for personnel access at all onshore and offshore SA facilities and project sites. This instruction applies to scaffolds erected either by contractors or by SA departments in support of construction, operations, or maintenance activities.

3.0 REFERENCES

Saudi Aramco Construction Safety Manual (CSM):

Chapter II-2, *Scaffolding*Chapter II-5, *Fall Protection*Chapter II-6, *Concrete Construction*

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- 4.1 Bracket (Tank Builder's) Scaffold: A scaffold supported by bracket straps welded to the tank or vessel wall. Upright brackets are hooked to the straps.
- 4.2 Degreed Structural Engineer: A person with a civil or structural engineering degree, from an internationally recognized four year university, who has demonstrated experience in scaffolding design and construction.
- 4.3 Fabricated Tubular Frame Scaffold: A scaffold consisting of a platform(s) supported on fabricated end frames with integral posts.
- 4.4 Formwork: The total system of support for freshly poured or partially cured concrete, including the mold or sheeting (form) that is in contact with the concrete, as well as all supporting members, braces, and related hardware.
- 4.5 Formwork Shoring: Temporary vertical supporting members in a formwork system that are designed to carry the weight of the formwork, concrete, and construction loads.
- 4.6 Guardrail System: Consisting of top-rails, mid-rails, and support uprights installed on all open sides and ends of scaffold platform and also opening in the platform to prevent workers from falling off.
- 4.7 International Institution: An internationally-recognized scaffold accreditation agency that is recognized by SA as providing certifications that are equivalent to SA certifications.
- 4.8 Mobile Scaffold: A rigid scaffold assembly supported by casters that is capable of being manually moved horizontally.
- 4.9 Personal Fall Arrest System: A system used to arrest an individual's fall. It consists of a full body harness, shock-absorbing lanyard or self-retracting lifeline, and a substantial anchor point and/or horizontal/vertical lifeline. See CSM II-5 for personal fall protection system requirements.
- 4.10 Point of Access: The stepping-on point for all ladders, stairs, etc. used to gain initial access to a scaffold. Upper ladders within a scaffold are not considered a point of access.
- 4.11 Proponent: The SA organization (or its authorized representative) that is the asset owner of the facility where the scaffold will be erected, whether in the community or plant (e.g., industrial and non-industrial). For capital projects under construction within an existing facility, the owner of that facility shall be designated as the proponent. For grassroots capital projects under construction, the organization responsible for executing the project shall be designated as the proponent.
- 4.12 Scaffold: A temporary structure (base-supported or underhung) used to provide access or for supporting workmen and/or materials at any height.
- 4.13 Scaffold Craftsmen (Scaffolders): Employees of the Scaffold Erector who work under the direct supervision of a Scaffold Supervisor and who erect, alter, or dismantle scaffolds. Scaffold craftsmen shall be trained and qualified to perform scaffolding work, but are not certified by SA.
- 4.14 Scaffold Erector: The organization responsible for the proper design, erection, alteration, and dismantling of the scaffold. The erector may be either a SA organization or an outside contractor.
- 4.15 Scaffold Field Inspection Checklists: Checklists that provide minimum requirements for field inspection of various types of scaffolds (see the Loss Prevention Department [LPD] intranet website). The various Scaffold Field Inspection Checklists and their applicability are:
- "Base-Supported, Non-Movable Scaffold Field Inspection Checklist" (SA Form 9614). To be used for field inspection of fixed scaffolds supported at their base.

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- “Mobile Scaffold Field Inspection Checklist” (SA Form 9615). To be used for field inspection of mobile scaffolds.
 - “Underhung Scaffold Field Inspection Checklist” (SA Form 9616). To be used for field inspection of underhung (suspended) scaffolds.
 - “Bracket Scaffold Field Inspection Checklist” (SA Form 9617). To be used for field inspection of bracket (tank builder’s) scaffolds.
- 4.16 Scaffold Inspector: A SA or contractor employee who has the training, experience, and capability of performing scaffold inspection tasks by identifying scaffold hazards, verifying compliance with applicable standards, and recording inspection results. All Scaffold Inspectors shall be certified per the requirements of this instruction (see Section 12.0).
- 4.17 Scaffold Plan: A scaffold design/layout package sufficient to erect a complete scaffold. A scaffold plan submitted for review by SA shall include drawings, design loads, scaffold material specifications and sizes, manufacturer’s technical data for couplers and fittings, etc. Scaffold plans shall include structural calculations for special scaffolds or when requested by SA for other scaffolds.
- 4.18 Scaffold Plan Completeness Checklist: A checklist (SA Form 9613) for verifying completeness of information shown on a scaffold plan (see attached Supplement 8.001-3, or the LPD intranet website).
- 4.19 Scaffold Supervisor: A full-time employee of the Scaffold Erector who is the immediate supervisor of craftsmen that erect, alter, or dismantle scaffolds in the area for which he is responsible, and who has the authority, training, and experience necessary to direct scaffolding work and verify compliance with applicable standards. All Scaffold Supervisors shall be certified per the requirements of this instruction (see Section 12.0).
- 4.20 Scaffold Tag: A standard SA holder with inserts (restricted only for use on SA facilities and project sites) for clearly showing whether or not a scaffold meets SA’s requirements. The Scaffold Erector shall purchase, provide, and use only authentic SA-approved scaffold tags obtained from an authorized supplier, unless it is explicitly stated in the contract that scaffold tags will be provided by the proponent. Scaffold tags are color coded as follows:
- Red Scaffold Tag: Indicates that the scaffold has not been inspected or is not safe for use (by anyone other than scaffold craftsmen). The red scaffold tag is also a holder into which either green or yellow scaffold tag inserts are to be placed, as applicable. Only authentic SA approved scaffold tag holders are to be used as red scaffold tags.
 - Green Scaffold Tag: Indicates that the scaffold is complete, has been inspected, and is safe for use at the time of inspection. A green scaffold tag is valid for a maximum of two weeks, but can be renewed three additional times for a total of eight weeks. Only authentic SA approved tag inserts are to be used as green scaffold tags.
 - Yellow Scaffold Tag: Indicates the scaffold has been inspected and may be used only by workers wearing a properly anchored personal fall arrest system. A yellow scaffold tag is required whenever all guardrails or planks cannot physically be installed (e.g., due to interferences) or must be temporarily removed. **A yellow scaffold tag does not permit intentional erection of an incomplete scaffold.** A yellow scaffold tag is valid for a maximum of two weeks, but can be renewed three additional times for a total of eight weeks. Only authentic SA approved tag inserts are to be used as yellow scaffold tags.
- 4.21 Scaffold User’s Safety Checklist: A checklist to assist users of a scaffold and proponent representatives (e.g., work permit issuers and designated representatives) in performing a pre-use safety inspection. This checklist is located on the reverse side of the green and yellow scaffold tags.

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4.22 Special Scaffold: A scaffold that meets any of the following conditions and for which a structural engineering review of the scaffold plan by the SA Consulting Services Department (CSD) is required:

- Any scaffold over 38 meters (125 feet) tall.
- A tube and coupler scaffold which exceeds the maximum limits in SA CSM Chapter II-2, *Scaffolding*.
- Any scaffold cantilevered (extended outward) by more than 3 meters (10 feet).
- Any scaffold (except tank bracket scaffolds) with a total platform area over 30 square meters (320 sq. ft.) that is supported by or hung from an existing structure (e.g., building, roof, pipe rack, offshore platform) or is within 3 meters (10 feet) of any other scaffold supported by or hung from the same structure.
- Any access scaffold also supporting loads greater than 240 kg/m² (50 psf), including piping, equipment, masonry, new or existing structures, or loads other than workers and their materials.
- Formwork shoring constructed of scaffolding materials supporting elevated concrete slabs/decks more than 300 mm (12 inches) thick.

Note: Effective January 1, 2018, any formwork shoring constructed of scaffolding materials supporting elevated concrete slabs/decks more than 100 mm (4 inches) thick shall be considered a special scaffold.

- Any scaffold supported by or hung from wind girders or roofs of floating roof tanks.

4.23 Specialized Scaffolding Contractor: A contractor Scaffold Erector (organization) that specializes in and regularly performs all phases of scaffold design and erection. For the purposes of this GI, a Specialized Scaffolding Contractor may be either an independent scaffolding company or the scaffold division/unit of a local company and shall be approved by SA. Scaffold design and erection shall be the sole business of a Specialized Scaffolding Contractor (company or division/unit). Contractors currently on the SA General Bid Slate (GBS) for Scaffolding Services are approved Specialized Scaffolding Contractors. Other contractors (Non-GBS) interested in being considered for approval as a Specialized Scaffolding Contractor shall submit their completed Non-GBS Qualification Questionnaire (available on the LPD intranet website) through their proponent to the Manager, Loss Prevention Department, for review by the Specialized Scaffolding Contractor Evaluation Team (SSCET). This review takes at least 3 months.

4.24 Structural Alteration: Any change in the framing configuration of the structural elements (used to carry load or for stability) of an existing scaffold.

4.25 System Scaffold: A scaffold consisting of posts (standards) with fixed connection points that accept runners (ledgers), bearers (transoms) and braces that can be interconnected at predetermined levels.

4.26 Tube and Coupler Scaffold: A scaffold constructed of: steel tubing that serves as posts (standards), runners (ledgers), bearers (transoms), braces, and ties; a base supporting the posts; and specially designed scaffold couplers that serve to connect the various members.

4.27 ACRONYMS

- ALPD Area Loss Prevention Division
- CISRS Construction Industry Scaffold Record Scheme
- CITB Construction Industry Training Board
- CSD Consulting Services Department
- CSM Construction Safety Manual
- GBS General Bid Slate for Scaffolding Services
- GES General Engineering Services (design consultant)
- LPD Loss Prevention Department
- PMT Project Management Team

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- PPE Personal Protective Equipment
- SSCET Specialized Scaffolding Contractor Evaluation Team
- T&D Training & Development

5.0 RESPONSIBILITIES**5.1 Consulting Services Department (CSD)**

5.1.1 Conduct structural engineering reviews of scaffold plans, including design calculations, for all special scaffolds. Such reviews do not relieve the Specialized Scaffolding Contractor of their responsibility for ensuring the structural integrity and adequacy of a scaffold.

5.1.2 Provide a representative to the Specialized Scaffolding Contractor Evaluation Team (SSCET).

5.2 Training and Development (T&D)

5.2.1 Provide scaffold training courses for SA employees.

5.2.2 Administer SA Scaffold Supervisor and Scaffold Inspector certification tests and issue certification cards to SA and contractor employees who pass the test.

5.3 Loss Prevention Department (LPD) Area Offices

5.3.1 Conducts reviews of scaffold plans for completeness and for conformance to SA's safety requirements. Such reviews do not relieve the Specialized Scaffolding Contractor of their responsibility for ensuring that scaffold plans are complete and in conformance with SA's requirements.

5.3.2 Conducts random field compliance reviews of scaffolds.

5.4 Proponent Organizations

5.4.1 Ensure that all requirements in this instruction are strictly followed.

5.4.2 Verify the validity of scaffold supervisor and inspector certifications (when there are any concerns regarding certification validity) prior to allowing scaffold erection, alteration or dismantling to begin.

5.4.3 Ensure only SA approved scaffolding materials are used. See CSM II-2 for details.

5.4.4 Establish a work process for storing and issuing company approved scaffold tag holders, inserts, and pens to scaffold erectors.

5.4.5 Communicate in writing to the Scaffold Erector the names and badge numbers of individuals who are authorized to give direction for scaffold alteration or modification. All directions given to the Scaffold Erector for any scaffold alteration or modification shall state clearly what work access is required, and not specifically how the scaffold is to be altered or modified.

5.4.6 Confirm the structural adequacy of any existing structure used to support a scaffold and its intended load, and ensure all necessary precautions (e.g., shoring) are taken.

5.4.7 For special scaffolds and scaffolds over 12.2 meters (40 feet) tall:

5.4.7.1 Designate a single point-of-contact for all communications during scaffold design, plan review, erection, and inspection.

5.4.7.2 Ensure that the Specialized Scaffolding Contractor has all of the required layout and design information needed to prepare a complete and correct scaffold plan.

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This information includes:

- type and duration of work to be performed on the scaffold,
- maximum number of workers and additional loads to be on each planked level at any one time,
- required access points/elevations,
- maximum number of simultaneous working and planked platforms,
- location of potential interferences (e.g., piping, equipment) and areas to remain free of obstruction (e.g., exits, roadways), and
- unusual or heavy loads.

5.4.7.3 Check and verify that the scaffold plan is complete (using the Scaffold Plan Completeness Checklist) prior to submitting to LPD for review, and in the case of special scaffolds, to LPD followed by CSD.

5.4.7.4 Check and verify that the scaffold plan meets job functionality, access, and clearance requirements.

5.4.7.5 Assign a representative to the SSCET, if the proponent submits a request for approval of a Specialized Scaffolding Contractor. This proponent representative will only participate in the SSCET review of the completed Qualification Questionnaire for that specific contractor.

5.4.8 Ensure workers use approved personal fall arrest systems, including properly anchored full body harness when working on yellow-tagged scaffolds.

5.4.9 Conduct a field visit with the Scaffold Supervisor prior to commencing scaffold erection to ensure that site details are considered (e.g., access to fire and safety equipment, access to equipment local stop/start points, access and egress requirements and considerations when scaffolding near to equipment at elevated temperatures).

5.5 Scaffold Erector (including Specialized Scaffolding Contractor)

5.5.1 Provide qualified and properly trained scaffold craftsmen and supervision to perform all phases of scaffold work, including planning, design, engineering, erection, alteration, dismantling, supervision, and inspection.

5.5.2 Implement a system to manage and perform bi-weekly inspections of their scaffolds. The Scaffold Erector is responsible for the safety and structural adequacy of scaffolds erected or altered by their employees.

5.6 Scaffold Inspector

5.6.1 Independently verify scaffold safety and conformance to the requirements of this instruction, the SA CSM and the approved scaffold plan, by field inspection, acceptance and co-signing scaffold tag(s) for all new or altered special scaffolds and scaffolds over 6 meters (20 feet) tall. All Scaffold Inspectors shall be fluent in written and verbal English.

5.7 Scaffold Supervisor

5.7.1 Ensure that scaffold erection, alteration, and dismantling is performed safely, in accordance with the accepted scaffold plan, the requirements of this instruction and the SA CSM.

5.7.2 Be present at the job site during scaffold erection, alternation and dismantling, have full supervisory authority over the scaffold craftsmen, and provide effective supervision of all scaffolding work under

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his responsibility. He shall not be assigned dual roles that could interfere in his supervisory responsibilities.

- 5.7.3 Ensure that Personal Protective Equipment (PPE), including personal fall arrest systems, is used by scaffold craftsmen in accordance with SA CSM Chapter II-5.
- 5.7.4 Inspect the completed scaffold and verify the appropriate use and placement of scaffold tag(s) on all new or altered scaffolds. All Scaffold Supervisors shall be experienced in scaffold erection and fluent in written and verbal English.
- 5.7.5 Inspect scaffold materials before, during, and after erection to ensure that they meet all SA requirements, are in good condition, and are free of defects.
- 5.7.6 Mark any scaffold component that is damaged, weakened, or does not meet the applicable codes and standards with bright fluorescent orange paint and immediately remove it from SA property or job site. This material shall be destroyed to ensure that it is not reused on any SA facility or project site.

6.0 GENERAL REQUIREMENTS

- 6.1 All scaffold work shall meet the requirements of this instruction and the SA CSM Chapters II-2, "Scaffolding", II-5, "Fall Protection." Formwork and formwork shoring constructed of scaffolding materials shall be per SA CSM Chapter II-6, "Concrete Construction," unless it's categorized as a "special scaffold" per Section 4.22 of this instruction.
- 6.2 All scaffolds shall be built in accordance with the work process/decision flowchart in Supplement 8.001-1, including formal scaffold plan review, inspection and tagging. However, base-supported scaffolds less than 1.8 meters (6 feet) tall do not need to be in accordance with Supplement 8.001-1, unless located near the edge of an elevated structure with a protected or un-protected fall potential of more than 1.8 meters (6 feet).
- 6.3 Special scaffolds and scaffolds over 12.2 meters (40 feet) tall shall only be designed, erected, altered, inspected, and dismantled by a SA approved Specialized Scaffolding Contractor.

Note: SA maintenance organizations that specialize in offshore work are permitted to design, erect, alter, and dismantle scaffolds over 12.2 meters (40 feet) tall and special scaffolds on remote offshore platforms for their own use only. Such scaffolds shall be built by properly certified maintenance organization personnel (i.e., employees, SMPs) using SA-owned scaffolding material that meets company specifications. All other requirements, including the completion of the Scaffold plan Completeness Checklist, shall be complied with. Maintenance organizations are not to apply this exemption to scaffolding work that is contracted out.

- 6.4 An approved Specialized Scaffolding Contractor that is not on the GBS for Scaffolding Services (Non-GBS) are only permitted to design, erect, and alter scaffolds for their own use (not for hire), using their own personnel and materials. Non-GBS Specialized Scaffolding Contractors cannot erect scaffolds for use by proponent organizations or other contractors.
- 6.5 For scaffolds equal to or less than 12.2 meters (40 feet) tall, the proponent shall decide whether to use a SA maintenance group or an outside contractor, giving due consideration to their in-house capabilities and the complexity of the required scaffold(s).
- 6.6 Falling object protection shall be in place during scaffold erection, use, alteration and dismantling. Personnel not directly involved in scaffold activities shall be kept away from the area through the use of barricade tape or fencing to prevent personnel to enter the hazard area.

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- 7.1 A scaffold plan, which meets all Saudi Aramco requirements (e.g., SA CSM Chapter II-2), shall be prepared by the Specialized Scaffolding Contractor for all scaffolds over 12.2 meters (40 feet) in height, for all special scaffolds, or for any other scaffold as requested by LPD.
- 7.2 The Specialized Scaffolding Contractor shall ensure that every scaffold plan is complete and in accordance with the Scaffold Plan Completeness Checklist. The Specialized Scaffolding Contractor shall complete and attach this checklist to every scaffold plan, prior to submitting the scaffold plan to the proponent for review.
- 7.3 The Specialized Scaffolding Contractor shall ensure that the scaffold plan for any special scaffold is checked and the design verified and signed by a degreed structural engineer, prior to submitting the scaffold plan to the proponent for review. For scaffolds requiring a scaffold plan and supported by an existing structure, the degreed structural engineer shall compute or verify scaffold support reactions (including wind). These support reactions shall be submitted to the proponent for use in confirming the adequacy of the existing structure to support the scaffold loads.
- 7.4 The Specialized Scaffolding Contractor shall utilize an independent SA approved General Engineering Services (GES) design consultant, or the structural engineering group of the project's Lump Sum Turnkey (LSTK) contractor, to prepare or review and approve the structural calculations and scaffold plan for any scaffold categorized as a special scaffold. This engineering shall be performed by degreed structural engineer(s) prior to submittal of the scaffold plan to SA for approval and shall be in accordance with the latest SA Scaffolding Structural Design Criteria available on the LPD intranet website.
- 7.5 The proponent shall review every scaffold plan for completeness and verify that the scaffold meets job functionality, access, and clearance requirements, prior to submitting the scaffold plan for review by LPD. For scaffolds requiring a scaffold plan and supported by an existing structure, the proponent's designated engineering organization is responsible for confirming the adequacy of the existing structure to support the scaffold loads (including wind loads) and for ensuring that all necessary precautions are taken, prior to submitting the plan for review by LPD.
- 7.6 The proponent shall submit the scaffold plan (if required per paragraph 7.1) to the local Area Loss Prevention Division (ALPD) office for review at least two weeks prior to erection (four weeks for special scaffolds). This lead time is necessary to allow adequate time for scaffold plan transit, review, rework, and acceptance.
- 7.7 The ALPD shall review scaffold plans for scaffolds over 12.2 meters (40 feet), all special scaffolds and as requested by the proponent organizations. ALPD shall review scaffold plans for conformance to SA requirements (e.g., Chapter II-2 of the CSM). If all needed information accompanies the scaffold plan per the Scaffold Plan Completeness Checklist, and no rework is required, review and acceptance will be completed within one week after receipt of the scaffold plan. If rework is required, ALPD shall work with the proponent to ensure that the Specialized Scaffolding Contractor satisfactorily corrects all noted deficiencies. A copy of the revised scaffold plan shall be sent to the same ALPD office for verification that their comments were satisfactorily addressed.
- 7.8 For special scaffolds, the proponent shall submit another scaffold plan (after ALPD review and rework) to CSD's Civil Engineering Unit to complete a structural engineering review of the scaffold plan. However, CSD will not review, and will return for rework, any scaffold plan that is incomplete and/or not legibly prepared in accordance with the Scaffold Plan Completeness Checklist. If all needed information accompanies the scaffold plan and no rework is required, review and acceptance will be completed within two weeks after receipt of the scaffold plan. If rework is required, CSD shall work with the proponent to ensure that the Specialized Scaffolding Contractor satisfactorily corrects all noted deficiencies. A copy of

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the revised scaffold plan shall be sent to CSD for verification that their comments were satisfactorily addressed.

7.9 A copy of the final, accepted scaffold plan shall be sent by the proponent to the ALPD.

8.0 SCAFFOLD ERECTION

- 8.1 Prior to scaffold erection, the proponent representative (e.g., work permit issuer) and the Scaffold Supervisor shall survey the job site and take measures to mitigate potential hazards, such as debris, overhead power lines, electrical cables, excavations, roads, etc. If a scaffold plan is required, it shall be completed and properly approved per this instruction before scaffold erection commences.
- 8.2 Any scaffold for which a scaffold plan was prepared shall be erected in accordance with the approved scaffold plan for that scaffold. Any required deviations from the scaffold plan shall be first reviewed by the ALPD and, in the case of a special scaffold, by CSD.
- 8.3 All scaffolds shall be erected, altered, and dismantled only under the direction of an on-site Scaffold Supervisor employed by the Scaffold Erector. The Scaffold Supervisor shall be physically present at the scaffold while under erection, alternation or dismantling. He shall not just show up at the end of the job to sign the scaffold tag. Only trained and experienced scaffold craftsmen shall be used for erecting, altering, and dismantling scaffolds.
- 8.4 Each scaffold craftsman shall continuously wear a full body harness with a “Y” or double-leg shock-absorbing lanyard while erecting, altering, or dismantling a scaffold. If it is possible to do so, each scaffold craftsman shall properly anchor his lanyard whenever he is not protected by a guardrail system and could fall more than 1.8 meters (6 feet). The lanyard shall be anchored to the scaffold only if a stronger anchorage is not available. See SA CSM II-5 for full-body harness and shock-absorbing lanyard requirements.
- 8.5 All scaffolds shall be continuously tagged with a SA red scaffold tag during scaffold erection. A red (“Do Not Use”) scaffold tag shall be continuously attached to the scaffold at each point of access. Only the Scaffold Supervisor or Scaffold Inspector is authorized to remove a red scaffold tag. Red scaffold tags (empty holders) shall be attached to the scaffold by placing a scaffold tube through the hole in the holder during scaffold erection. Red scaffold tags (empty holders) shall not be tied to the scaffold using wire, string, etc.

9.0 INSPECTION AND TAGGING

- 9.1 Any scaffold tagged with a red scaffold tag shall not be used, except by scaffold craftsmen for the purpose of erecting, dismantling, altering, or correcting scaffold deficiencies. Any unauthorized person using a scaffold with a red scaffold tag, and their supervision, will be subject to disciplinary action.
- 9.2 The Scaffold Supervisor who is responsible for the scaffold shall personally inspect the scaffold at the job site as soon as possible after completion by his craftsmen, and before workers other than scaffold craftsmen use the scaffold. The Scaffold Supervisor shall complete and sign the applicable Scaffold Field Inspection Checklist during this field inspection.
- 9.3 All green (“Passed Inspection”) or yellow (“Full Body Harness Required”) scaffold tags shall be signed by a certified Scaffold Supervisor. He shall sign in the “Scaffold Supervisor” section of the scaffold tag(s) immediately after he inspects the scaffold and determines that it is complete and safe for use in accordance with SA requirements.

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- 9.3.1 For a scaffold equal to or less than 6 meters (20 feet) tall, which is not a special scaffold, only the certified Scaffold Supervisor is required to sign the scaffold tag(s) and he shall write the "Date of Next Inspection" on the tag(s).
- 9.3.2 Subsequent inspection of the scaffold shall occur within the two week period in order to revalidate the integrity of the scaffold.
- 9.3.3 For a scaffold equal to or less than 6 meters (20 feet) tall that is not a special scaffold, the Scaffold Supervisor shall insert his signed green or yellow tag into the previously installed holder. However, for scaffolds over 6 meters (20 feet) tall and special scaffolds, the Supervisor shall give his signed tag(s) to a certified Scaffold Inspector.
- 9.4 Scaffolds over 6 meters (20 feet) tall and special scaffolds shall also be inspected by a certified Scaffold Inspector (who cannot also be the Scaffold Supervisor for the specific scaffold). The Scaffold Inspector shall personally complete his inspection at the job site as soon as possible after the Scaffold Supervisor completes his inspection. The Scaffold Inspector shall complete and sign a separate Scaffold Field Inspection Checklist.
- 9.4.1 After the Scaffold Inspector determines that the scaffold is complete and safe for use in accordance with SA requirements, he shall also sign the same green or yellow scaffold tag(s) that were previously signed by the Scaffold Supervisor. The Scaffold Inspector shall only sign scaffold tag(s) in the "Scaffold Inspector" section.
- 9.4.2 The Scaffold Inspector shall write the "Date of Next Inspection" on the green or yellow scaffold tag(s).
- 9.4.3 Subsequent inspection of the scaffold shall occur within the two week period in order to revalidate the integrity of the scaffold.
- 9.4.4 The Scaffold Inspector shall insert the green or yellow scaffold tag, signed by both himself and the Scaffold Supervisor, into the previously installed holder.
- 9.5 In no case shall a scaffold that is missing members required for structural stability (e.g., bearers, runners, posts, or braces) be tagged with yellow or green scaffold tag(s). Use of a yellow scaffold tag does not permit intentional erection of incomplete scaffolds.
- 9.6 After each field inspection, the Scaffold Supervisor (and Scaffold Inspector, if required per paragraph 9.4) shall submit his signed Scaffold Field Inspection Checklist to the proponent, who will keep it on file until the scaffold has been dismantled.
- 9.7 The Scaffold Supervisor (and Inspector) shall not sign scaffold tag(s) for any scaffold he considers to be unsafe or incorrect. The Scaffold Supervisor (and Scaffold Inspector) are not accountable if others alter, without their knowledge, a scaffold with a scaffold tag they previously signed.
- 9.8 The "Scaffold ID Number" handwritten on the green or yellow scaffold tag shall match the ID number printed on the scaffold tag holder. Only permanent ink pens are to be used to write on and sign scaffold tags. Scaffold tags shall have a maximum validity of two weeks, but can be renewed if unused renewal spaces are available on the tag.
- 9.9 Prior to the first use on each shift, the immediate supervisor of the workers who will be using the scaffold shall perform a pre-use inspection of the scaffold using the Scaffold User's Safety Checklist that is located on the reverse side of the green or yellow scaffold tag. This pre-use inspection is to ensure that the scaffold has not been improperly altered, that no major safety defects are present, and that scaffold tag(s) are in place and still valid (date of next inspection has not passed).

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9.10 If at any time it is determined that a scaffold is unsafe or that the green or yellow scaffold tags are no longer valid, the green or yellow scaffold tag(s) shall be removed from the holder, exposing the red ("Do Not Use") scaffold tag(s). Whenever this is done, the person who removed the green or yellow scaffold tag(s) shall immediately notify the proponent so that corrective action may be initiated. If a work permit was issued, it shall be promptly withdrawn and cancelled. All work requiring use of the scaffold shall stop until corrective action is taken.

9.11 Scaffold tags shall not be removed and used elsewhere prior to dismantling the scaffold to which they are attached.

9.12 Scaffold tags shall not be reused (e.g., do not erase or "white out" previous signatures, inspection dates, etc.). Scaffold tag holders may be reused.

10.0 ALTERATIONS

10.1 Only scaffold craftsmen, under the direct supervision of a Scaffold Supervisor employed by the Scaffold Erector who originally erected the scaffold, are permitted to alter or repair any part of an existing scaffold, including guardrails, planks, and ladders.

10.2 The altered scaffold shall be re-inspected by a Scaffold Supervisor (and Scaffold Inspector, if required per paragraph 9.4) after each alteration. If the scaffold is safe for use, newly signed green or yellow scaffold tags (as applicable) shall be securely attached to the scaffold prior to reuse.

11.0 DISMANTLING

11.1 Immediately after completion of the scaffold's intended use, and upon verification that no other workers need to use the scaffold, the proponent shall ensure that all green or yellow scaffold tags are removed from the scaffold and that a red ("Do Not Use") scaffold tag is securely affixed at each point of access. The proponent shall immediately notify the Scaffold Erector that the scaffold is ready to be dismantled.

11.2 The Scaffold Erector shall dismantle the scaffold as soon as possible after being notified by the proponent that the scaffold is ready to be dismantled.

11.3 The Scaffold Supervisor shall ensure that dismantling of scaffolds is planned, orderly, and performed level by level from top to bottom. Scaffold components, tools, and fittings shall be lowered to the ground in an orderly manner by rope, etc. and not thrown down. The Scaffold Supervisor shall also ensure that scaffold materials are returned and properly stacked at their designated storage location immediately after the scaffold is dismantled.

12.0 CERTIFICATION

12.1 Only Scaffold Supervisors holding a valid certification are permitted to supervise erection, alteration, and dismantling of scaffolds at SA facilities and project sites.

12.2 Only Scaffold Inspectors holding a valid certification are permitted to inspect scaffolds, including special scaffolds, at SA facilities and project sites. Scaffold Inspectors who do not hold a valid Scaffold Supervisor certification are not permitted to supervise erection, alteration, and dismantling of scaffolds at Saudi Aramco facilities and project sites.

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12.3 Scaffold Supervisors and Scaffold Inspectors may be certified by either SA or an approved international institution. See Supplement 8.001-4 for the equivalent international institution certifications that have been recognized as being equivalent to SA certifications.

12.4 The supervision and inspection authority of each certification is as follows:

- Scaffold Supervisor I – can supervise, inspect, and sign scaffold tags for all scaffolds, including special scaffolds. At least five (5) years of scaffold erection experience is required before seeking certification as a certified Scaffold Supervisor I.
- Scaffold Supervisor II-T – can supervise, inspect, and sign scaffold tags for only tube and coupler scaffolds less than 12.2 meters (40 feet) tall, excluding special scaffolds. At least three (3) years of scaffold erection experience is required before seeking certification as a certified Scaffold Supervisor II-T.
- Scaffold Supervisor II-S – can supervise, inspect, and sign scaffold tags for only system scaffolds or fabricated tubular frame scaffolds (including tubular braces and tie-ins) less than 12.2 meters (40 feet) tall, excluding special scaffolds. At least three (3) years of scaffold erection experience is required before seeking certification as a certified Scaffold Supervisor II-S.
- Scaffold Inspector – SA certified Scaffold Inspectors can inspect and sign scaffold tags for all scaffolds, including special scaffolds. Scaffold Inspectors holding a certification from an approved international institution can inspect and sign scaffold tags per the requirements of Supplement 8.001-4.

12.4 T&D, or an outside testing agency that has been certified by a recognized international institution, will administer SA scaffold supervisor and inspector certification tests to SA and contractor employees. Upon successful completion of the SA Scaffold Supervisor or Scaffold Inspector test, a pocket card will be signed and issued by T&D, or a recognized international institution, to the individual confirming him as either a SA certified Scaffold Supervisor I, II-T, or II-S, or a certified Scaffold Inspector (or the equivalent international certification listed in Supplement 8.001-4), as applicable. Multiple certifications for a single individual are permitted (e.g., a Scaffold Inspector may also be certified as a Scaffold Supervisor – however, per Section 9.4, he shall not sign the same scaffold tag in both positions).

12.5 Every certified Scaffold Supervisor and Scaffold Inspector shall have his valid certification pocket card in his possession at all times while at the job site.

12.6 All proponent organizations shall maintain records of their certified Scaffold Supervisors and certified Scaffold Inspectors. SA certifications expire three (3) years after the date of issue. Therefore, certified Scaffold Supervisors and Scaffold Inspectors shall be re-tested and re-certified every three years. Scaffold certifications issued by an approved international institution shall be valid per the issuing authority's specified period.

CONCURRED: _____
MANAGER
Consulting Services Department

DATE: _____

APPROVED: _____
MANAGER
Loss Prevention Department

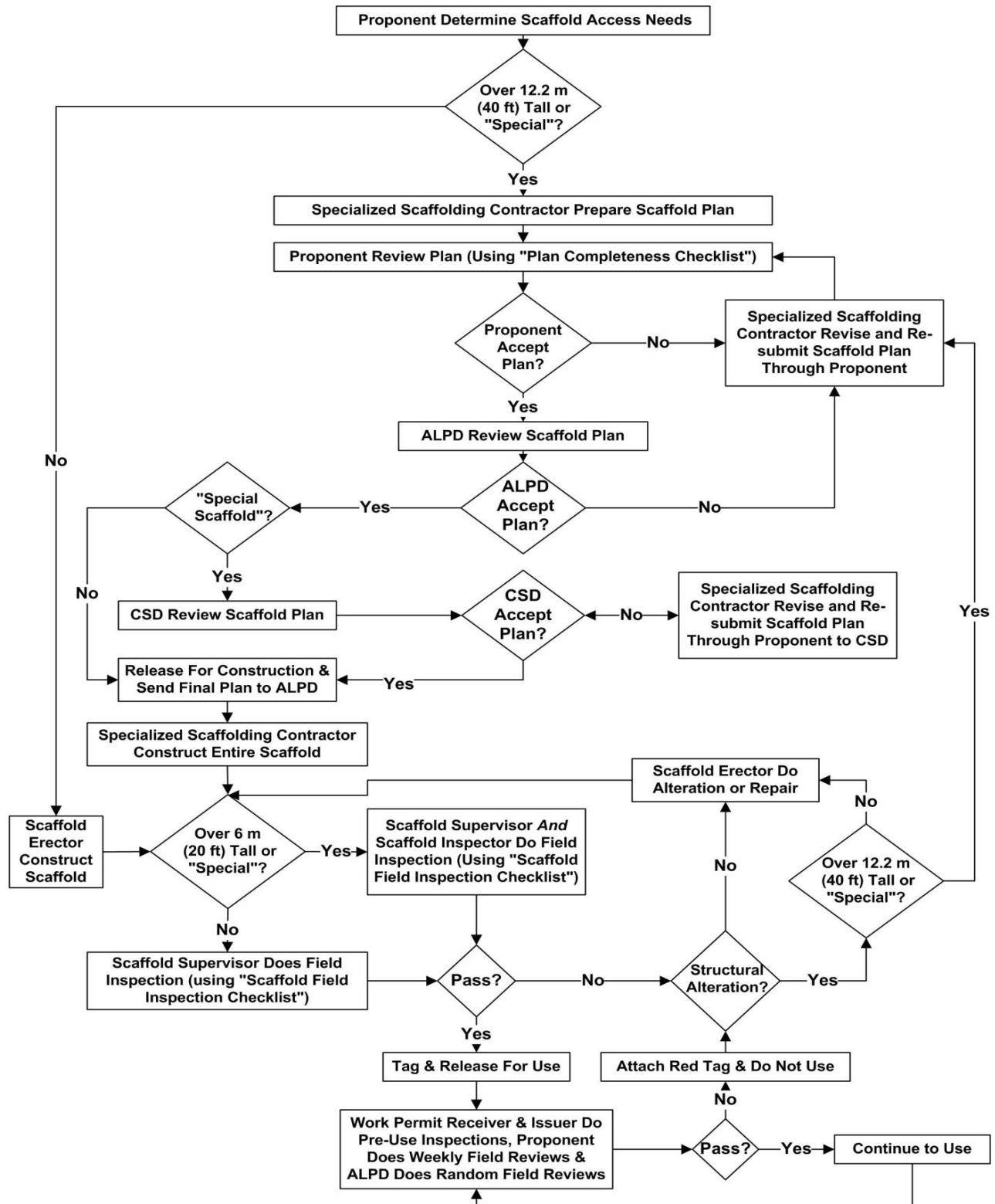
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Scaffold Height	Scaffold Plan (SP) Required?	SP To Be Reviewed By Proponent And LP Area Office?	SP To Be Reviewed By CSD?	Scaffold To Be Erected By:	Scaffold Field Inspection Checklist Completed By:	Scaffold Tag(s) Signed By:
0 – 6m (0 - 20 ft.)	No	No	No	Qualified Scaffold Erector	Scaffold Supervisor Only	Scaffold Supervisor Only
6 - 12.2m (20 – 40 ft.)	No	No	No	Qualified Scaffold Erector	Scaffold Supervisor & Inspector	Scaffold Supervisor & Inspector
12.2 - 38m (40 – 125 ft.)	Yes	Yes	No	Specialized Scaffolding Contractor	Scaffold Supervisor & Inspector	Scaffold Supervisor & Inspector
Special Scaffold, including > 38m (125 ft.)	Yes	Yes	Yes	Specialized Scaffolding Contractor	Scaffold Supervisor & Inspector	Scaffold Supervisor & Inspector

Note 1: Special scaffolds also include those cantilevered by more than 3m (10 ft.) and those with a total platform area of more than 30 sq. meters (320 sq. ft.) that are supported by or hung from an existing structure or are within 3 meters (10 ft.) of any other scaffold supported by or hung from the same structure.

Note 2: Acceptable certifications for qualified scaffold erectors and scaffold supervisors are listed in Supplement 8.001-4

Note 3: Scaffolds below 1.8m (6 ft.) tall are not required to be inspected and tagged per Section 6.2, unless located near the edge of an elevated structure with a protected or un-protected fall potential of more than 1.8 meters (6 feet).

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SUPPLEMENT 8.001-3, SCAFFOLD PLAN COMPLETENESS CHECKLIST

Refer to: SA FORM 9613 (SCAFFOLD PLAN COMPLETENESS CHECKLIST)

* CHANGE

** ADDITION

NEW INSTRUCTION

COMPLETE REVISION

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CERTIFICATION LEVEL	ALLOWABLE CERTIFICATION	
	SAUDI ARAMCO	INTERNATIONAL INSTITUTION
Scaffold Supervisor II-T	Yes	CISRS: Safe Erection and Dismantling of Scaffolds – Part 2
Scaffold Supervisor II-S	Yes	CISRS: Safe Erection and Dismantling of Scaffolds – Part 2
Scaffold Supervisor I	Yes	CISRS: Safe Erection and Dismantling of Scaffolds – Part 2
Scaffold Inspector	Yes	Scaffolds greater than 6 meters, and not a special scaffold: CISRS: Basic Scaffold Inspection Training Scheme (SITS) Special scaffolds (including those above 38 meters): CISRS: Advanced Scaffold Inspection Training Scheme (Advanced SITS)

Note: The Overseas Scaffold Training Scheme (OSTS) certifications issued under the Construction Industry Scaffold Record Scheme (CISRS) name by local training providers are not equivalent the CISRS certifications listed above and are not acceptable as alternatives to Saudi Aramco certifications. All CISRS certifications are only acceptable if the individual attended the training and took the certification exam in the United Kingdom (UK).