EXPRO National Manual for Projects Management

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Project Portable Ladders Inspection and Control Procedure

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1.0 PURPOSE

The purpose of this procedure is to outlines the general information on specifications, inspections, and care of portable ladders.

2.0 SCOPE

The scope of this procedure applies to all works performed under the National Project Management Organization throughout the Kingdom of Saudi Arabia.

3.0 DEFINITIONS

Definitions	Description
Approved	"Approved" means equipment that has been listed or approved by the concerned Saudi organization such as SASO, and/or international recognized standardization organization such as ANSI.
SASO	Saudi Arabia Standards Organization
Competent	One who can identify existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
Equivalent	Equivalent means alternative designs, materials, or methods to protect against a hazard which the employer can demonstrate will provide an equal or greater degree of safety for employees than the methods, materials or designs specified in the standard
OSHA	Occupational Safety and Health Administration
CFR	Code of Federal Regulations
ANSI	American National Standards Institute
JHA	Job Hazard Analysis
WMS	Work Method Statement
PPE	Personal Protective Equipment

4.0 REFERENCES

- OSHA 29 CFR 1926 Subpart X Stairways and Ladders
- OSHA 29 CFR 1926 Subpart M Fall Protection
- OSHA 29 CFR 1910 Subpart D Walking-Working Surfaces
- EPM-KSS-PR-000001 Project General Safe Work Requirement Procedure
- EPM-KSS-PR-000027 Project Manual Material Handling Procedure
- EPM-KSS-PR-000006 Project Barricades and Signs Procedure
- EPM-KSS-PR-000005 Project Fall Protection Procedure

5.0 RESPONSIBILITIES

5.1 Project Manager

Project Manager's responsibilities include the following:

- Overall responsibility for this procedure and for supporting this process and verifying all Project entities actively participate.
- Providing the personnel, facilities, and other resources necessary to effectively accomplish this procedure.

5.2 Site Construction Manager

The Site Construction Manager is responsible for monitoring that the site is in compliance with applicable Health, Safety, Security and Environment HSSE requirements by:

- Providing the resources to implement the requirements of this procedure.
- Communicating with management concerning Project HSSE expectations concerning portable ladders storage, handling and inspection practices.
- Providing leadership regarding HSSE requirements and expectations for Managers, Project Supervisors, Superintendents and other leadership.

5.3 HSSE Manager

Site HSSE Manager's responsibilities include the following:

- Auditing this procedure.
- Confirming that this procedure meets the government requirements and regulations in the location of the Project facility.

5.4 Project Personnel

Project personnel's responsibilities include the following:

- Knowing and understanding the Environmental Safety and Health requirements of this Procedure that apply to the work they perform.
- Requesting additional information and further clarification before starting work if personnel receive assignments they do not understand.
- Complying and abiding by this Portable Ladders Inspection and Control Procedure for any work they perform.

6.0 RISK ASSESSMENTS

Before any Project/Work Activity/ commences it is important that Risk Assessments are completed prior to beginning any work.

Risk assessments must be conducted at the Planning Stage:

- Project Risk Assessment.
- Work Method Statements (WMS)
- Job Hazard Analysis (JHA).

It is imperative that prior to beginning of any work activity, a pre-start briefing occurs to discuss the contents of the WMS/JHA which includes mitigations of for 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 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 (such as through guarding, distance, etc.)
- ***Engineering Controls*** (Redesign or replacement of plant and equipment)
- ***Administration Controls*** (Procedures, training, signage)
- ***PPE-PPE PERSONAL PROTECTIVE EQUIPMENT***

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

7.0 GENERAL REQUIREMENTS

Ladders are not to be considered work platforms, but may be used for short periods of work, such as those in which work is within easy reach and can be carried out with one hand, or where it is impracticable to provide an alternative platform. When work is being conducted from a ladder on a platform where there is a risk of a fall, fall arrest equipment shall be worn and attached to a suitable anchorage point.

- Purchased ladders must be vendor-certified to their intended class and purpose to meet American National Standards Institute (ANSI) standards or equivalent internationally recognized standard.
- Two or more people will not work from the same ladder unless it is specifically designed for two people.
- Tripod ladders (ladders with three legs) must not be used. All stepladders will have at least four supporting rails or legs.
- Trestle ladders are not to be used to support scaffold planking.
- Non-metallic, approved ladders will be used during operations where employees may encounter electrical circuits or systems.
- Ladders should be identified by a control number and company name.
- All portable ladders must have non-skid feet.
- Be sure that all locks on an extension ladder are properly engaged.
- Do not exceed the maximum load rated capacity of the ladder. Be aware of the ladders load rating and the weight it is supporting, including the weight of any tools or equipment.
- The proper angle for setting up a ladder is to place its base a quarter of the working length of the ladder from the wall or other vertical surface. (4:1 ratio)
- Do not stand on the three top rungs of a straight, single or extension ladder.
- Do not use a step ladder as a single ladder or in a partially closed position.
- Always maintain a “3-Point of Contact” and facing the ladder when ascending or descending.
- Ladders must be free of any slippery material on the rungs, steps or feet.
- Do not place a ladder on boxes, barrels or other unstable base to obtain additional height.
- Do not move or shift a ladder while a person or equipment is on the ladder.
- No work is to be carried out over another person. Ensure that signage is used to warn people of work above.
- Materials are not to be carried while climbing the ladder. Tools should be carried in a tool belt or side pouch.
- Ladders are to be secured in place to prevent movement while in use.
- The ladder is not placed so that the weight of the adder and any person using the ladder is supported by the rungs.
- Ladder shall be selected to provide access to the point of use to avoid reaching or stretching.
- Ladders shall not be suspended from parapet hooks.

7.1 Ladder Inspection

- Before it is used, ladders must be inspected for faults, such as broken t=rungs, rails and footing.
- Project and business entities should develop a periodic inspection program to ensure that ladders are inspected by a competent person, inspection records must be maintained.
- When not in use, ladders will be stored on racks in good ventilation, away from excessive heat and damaging agents such as chemical material.
- No other material should be stored on ladders. When stored ladders must be supported to prevent sagging.
- Ladders will be inspected quarterly by a competent person, and the applicable quarter’s color code will be painted on the side rail as follows:
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Quarter	Months	Color
1	January, February, March	Yellow
2	April, May, June	Green
3	July, August, September	Red
4	October, November, December	Blue

A competent person will conduct quarterly inspections for the following:

- Bends, dents, cracks, lose or missing rivets.
- Disconnected braces, and corrosion weaken a ladder seriously.
- The area around rivet points on fiberglass ladders will be carefully inspected for hairline stress cracks.
- Ladders with broken or missing rungs, broken or split side rails, or damaged in other ways, will not be used and will be destroyed immediately.

7.2 Storage and Transportation

- When not in use, ladders will be stored on racks in locations protected from the elements, with good ventilation, away from excessive heat.
- Storage racks will have sufficient supporting points to avoid sagging. Long ladders need support every 1.8 meters.
- Other materials are not to be stored on ladders.
- Ladders being transported by motor vehicles will be properly supported. Supporting points will be made of material such as wood or rubber-covered iron pipe to minimize chafing and the effects of vibration and movement during transport.
- Ladders over 3.7 meters long will be carried by two employees.
- Ladders will be carried with the front portion lower than the rear to minimize impairment of the carriers' vision and reduce the risk of injury to others.

7.3 Training

Each employee who uses ladders will be trained by a competent person in the following areas, as applicable:

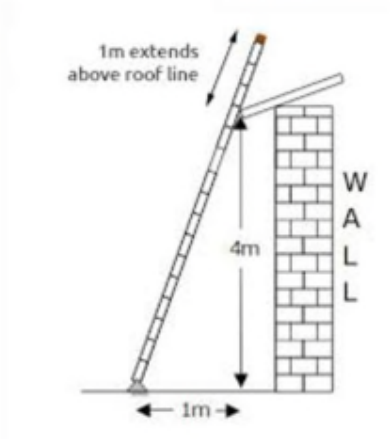
- The nature of fall hazards in the work area.
- Safe means of ascending and descending on portable ladders.
- The proper construction, use, placement, and care in handling of ladders.
- The correct procedures for erecting, maintaining, and disassembling fall protection systems.
- The maximum intended load-carrying capacities of ladders used.

8.0 ATTACHMENTS

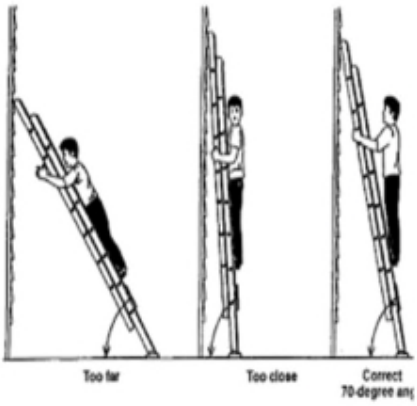
1. Ladder Set-up Tips

Attachment 1 - Ladder Set-up Tips

Safety Tips



4:1 Ratio



Right and Wrong Angle

Tip on achieving 75 Degrees (4:1 Ratio)