

2600SEG107 SAFETY STANDARD FOR USING LADDERS

1.0 PURPOSE

To know the safety standards that apply for the purchase, inspection, use and maintenance of the different sorts of ladders for works performed inside the Panama Canal Authority (ACP).

2.0 BACKGROUND INFORMATION

None

3.0 SCOPE

This standard applies to all ACP employees, contractors and third parties performing works or carrying out activities in facilities or areas under the responsibility of the ACP.

4.0 LEGAL FOUNDATION

This Standard is established pursuant to Agreement No. 12 of the Board of Directors of the Panama Canal Authority (ACP), Safety and Health Regulations, Chapter 1, Article 3.

5.0 DEFINITIONS

5.1 Ladder: A series of steps that serve to ascend to a higher plane or descend from it.

5.2 Step: Part of the ladder that allows the user to set foot while climbing or descending from a ladder.

5.3 Portable ladder: A portable device consisting of 2 slightly converging parallel parts, linked by steps, which serves for a person to climb or descend from one level to the other.

5.4 Fixed ladder: A ladder that may not be relocated or moved because it is an integral part of a building or a structure.

5.5 Double-step ladder: Similar to a simple ladder, but with a central railing that allows simultaneous movement of employees either going up or down

5.6 Handrail: Hand bar used to provide support for employees hands..

5.7 Capacity: Permissible workload.

6.0 GENERAL

6.1 Fixed ladders:

6.1.1 Any fixed ladder built to be used inside the ACP must be approved by Safety and Industrial Hygiene Unit, prior to its construction.

6.2 Portable ladders:

6.2.1 All ladders used by ACP units must comply with recognized construction standards. It is **forbidden** to use portable ladders made at the shops.

6.2.2 Any ladder with defects that affect its structural integrity must be set out of service and marked with a red tag.

6.2.3 Ladders must be manipulated and moved with caution.

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6.2.4 An extension ladder's base must be approximately one fourth of the length of the ladder that is leaning on the supporting wall. It must also be secured at the top in order to prevent it from falling.

6.2.5 Do not stand on the two top steps of a ladder.

6.2.6 Ladders used to reach roofs must protrude three feet from the roof.

6.2.7 Do not try to reach something unless it is at your arm's reach from the center of the ladder.

6.2.8 Always face the ladder when climbing or descending from it.

6.2.9 Metal ladders must not be used when there is a chance of making electric contact, near electrical lines, when using electric welding, or inside a transformers room.

6.2.10 Never use a ladder to make jambs, props, working tables, or for any purpose other than that for which it was originally designed.

6.2.11 Do not use the ladder to carry materials.

6.2.12 Ladders must never be painted. Should you need to write the acronym or identification of the shop or Division, you should do so on the handrails.

6.2.13 Should it be necessary to place the ladder at an exit or a hallway, the area must be fenced and signs should be placed warning that there is personnel working.

6.2.14 **NEVER** carry tools or any object that may hinder you from holding on to the handrails with both hands, while climbing or going down a ladder. **ALWAYS** use a rope to lift or bring down materials.

6.2.15 Ladders must not be moved or extended while there is personnel on them.

6.2.16 Maintain both feet on the steps at all times.

6.2.17 Your center line must be between the handrails at all times.

6.2.18 Do not use the ladder as a way to access one building from another.

6.2.19 There should only be one worker at a time on the portable ladder.

6.2.20 Use the three-point technique when climbing or descending from a ladder.

6.2.21 Do no try to put one foot on another surface or machinery and the other foot on the ladder.

6.3 Personnel training

6.3.1 ACP course "LADDERS AND SCAFFOLDS," offered by the Industrial and Safety Training Unit, is recommended. Contractor shall provide training for their own employees.

6.3.1.1 Equipment inspection: Ladders must be visually inspected on a daily basis or each time they will be used; additionally, a quarterly inspection must be performed and logged. Each section must develop its inspection log according to the manufacturer's inspection

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6.3.1.2 Inspection: The ladder must be approved by a renowned laboratory or institute (UL, FM). The ladder must comply with ANSI A14.1 2000 (wooden), ANSI A14.2 2000 (metallic), ANSI A 14.5 2000 (fiber).

The steps:

- Must not be cracked
- Lose
- Misassembled
- Unduly substituted with metal bars, wires or ropes.
- Must not have foreign substances like grease or oil.
- The spaces between the steps must be evenly distributed.
- Handrails must not be cracked.

Safety footings: Straight and extension ladders must have footings.

Metallic ladders: any bent or dented, part of the structure, damaged hardware or signs of corrosion.

Wooden or fiberglass ladders:

- All parts must be free from cutting edges, chips or any other hazard.
- They must not be painted; varnish is acceptable.
- Steps must have anti-slip paper.
- There must not be grease on the steps.
- Metallic parts must be lubricated.
- Joints between steps and lateral railings must be firm.

6.3.1.3 Anything else that the manufacturer recommends to be inspected.

6.3.2 Equipment purchase: all ladders purchased by the ACP must comply with ANSI A14.1 2000 for wooden ladders; ANSI A14.2 2000 for metallic ladders; and ANSI A 14.5 2000 for fiberglass ladders. They must be approved by Underwriter Laboratories (UL) or Factory Mutual (FM).

7.0 RESPONSIBILITIES

7.1 Users are responsible for:

- 7.1.1** Complying with section 6 herein.
- 7.1.2** Take into account their safety and that of their coworkers at all times.
- 7.1.3** Visually inspecting the ladder before each use.

7.1.4 Inspecting their work area to make sure that it is clear of any objects, grease or oil that may cause the individual using the ladder to trip or slip, both in the areas around the base and the top.

7.2 Supervisors are responsible for:

- 7.2.1** Complying with and enforcing this standard's requirements.



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- 7.2.2 Training their workers.
- 7.2.3 Maintaining inspection logs.
- 7.2.4 Follow-up on the elimination of all damaged ladders.

8.0 INQUIRIES

Any information or clarification of the content or application of this Standard must be requested in writing to the Safety and Industrial Hygiene Unit (RHSH).

9.0 EXCEPTIONS

Any requests for changes or temporary exceptions to this Standard must be made in writing to the Safety and Industrial Hygiene Unit (RHSH).

10.0 TERM

This Standard shall remain in force until amended or revised.