

Ladders—New Reg

- GISO and CSO ladders standards were not consistent or complete
- safety hazards associated with ladders in construction and general industries are essentially the same,
- consolidate the existing provisions pertaining to portable ladders into a single standard.
- Majority of regs in GISO § 3276
- Effects almost every trade

§3276. Use of Ladders.

(a) Scope. ... design, construction, selection, care, and use of all self-supporting and non-self-supporting portable ladders...



Self Supporting



Non-Self Supporting



Two man Supporting

§3276. Portable Ladders.

(a) Scope.

- This section is intended to prescribe rules and establish minimum requirements for the design, construction, selection, care, and use of all self-supporting and non-self-supporting portable ladders,
- in order to insure safety under normal conditions of usage.
- This section does not apply to ladder type step stools or other types of step stools *except*
 - for the definition of “step stool (ladder type)” in subsection (b) and
 - the design and construction requirements of subsection (c)(5).



•§3276. Use of Ladders.

(b) Definitions.

- Ladders. A ladder is an appliance usually consisting of two side rails joined at regular intervals by crosspieces called steps, rungs, or cleats, on which a person may step in ascending or descending.

(c) Design and Construction.

ANSI A14.1-2007, Ladders – Wood

ANSI A14.2-2007, Ladders - Metal

ANSI A14.5-2007, Ladders - Reinforced Plastic



•§3276. Use of Ladders.

(c) Design and Construction.

- (4) Portable special purpose ladders that are not covered by one of the ANSI A14 standards referenced in this section shall be designed and constructed in accordance with sound engineering principles and approved per Section 3206.

- (5) Ladder type step stools shall be designed ...

§3276. Use of Ladders.

(d) Selection.

- ...purpose for which the ladder is designed.
- the person, the task, and the environment
- length or height required,
- load & the duty rating,
- worker position to the task to be performed



§3276. Use of Ladders.

- *Duty Rating*

Ladder	Type	Working Load (lbs)
Special Duty	IAA	375
Extra Heavy-Duty	IA	300
Heavy-Duty	I	250
Medium-Duty	II	225
Light-Duty	III	200

LADDER DUTY RATINGS

TYPE:	Type IAA	Type IA	Type I	Type II	Type III
CAPABLE OF SUPPORTING:	375 pounds	300 pounds	250 pounds	225 pounds	200 pounds
RELATED USE:	Extra heavy duty industrial	Extra heavy duty industrial	Heavy duty industrial	Medium duty commercial	Light duty household

§3276(e) Care, Use, Inspection and Maintenance of Ladders.

(1) Maintenance.

- maintained in good condition *at all times*

(2) Inspection.

- inspected by a qualified person for visible defects *frequently*

(3) Damaged Ladders

- withdrawn from service for repair or destruction
- Ladders with broken or missing steps, rungs, cleats, safety feet, side rails, or *other defects* shall not be used.

§3276(e) Care, Use, Inspection and Maintenance of Ladders.

(4) Cleaning

- free of oil, grease, or slippery materials

(5) Surface Coatings

- Wood ladders shall not be painted

(6) Loading

- shall not be overloaded



§3276(e) Care, Use, Inspection and Maintenance of Ladders.

(7) Footing Support.

- placed on a secure and level footing.
- Ladders shall not be placed on boxes, barrels or other unstable
- Ladders shall not be used on ice, snow or slippery surfaces unless ...



§3276(e) Care, Use, Inspection and Maintenance of Ladders.

(8) Top Support.

- placed with the two rails supported equally, unless a single support attachment is provided and used.



§3276(e) Care, Use, Inspection and Maintenance of Ladders.

(9) Angle of Inclination.

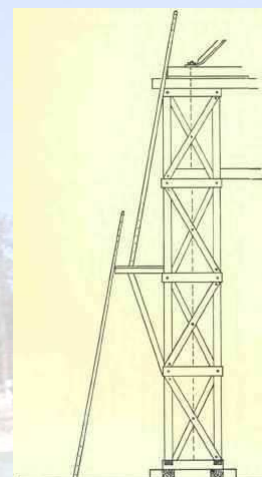
- horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder
- The ladder shall be so placed as to prevent slipping, or it shall be tied, blocked, held, or otherwise secured to prevent slipping.
- Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds unless designed for such use.



§3276(e) Care, Use, Inspection and Maintenance of Ladders.

(10) Access to Elevated Work Areas.

- when two or more separate ladders are used to reach an elevated work area, the ladders shall be offset with a platform or landing between the ladders.



§3276(e) Care, Use, Inspection and Maintenance of Ladders.

(11) Access to Landings.

- the side rails shall extend not less than 36 inches above the upper landing surface
- when such an extension is not possible,
 - then the ladder shall be secured at its top to a rigid support that will not deflect, and
 - a grasping device, such as a grab-rail, shall be provided to assist employees in mounting and dismounting the ladder



§3276(e) Care, Use, Inspection and Maintenance of Ladders.

(12) Fastening Together.

- not be tied or fastened together

(13) Erection of Extension Ladders.

- top section is above and resting on the bottom section with the rung locks engaged.

(14) Ladder Placement.

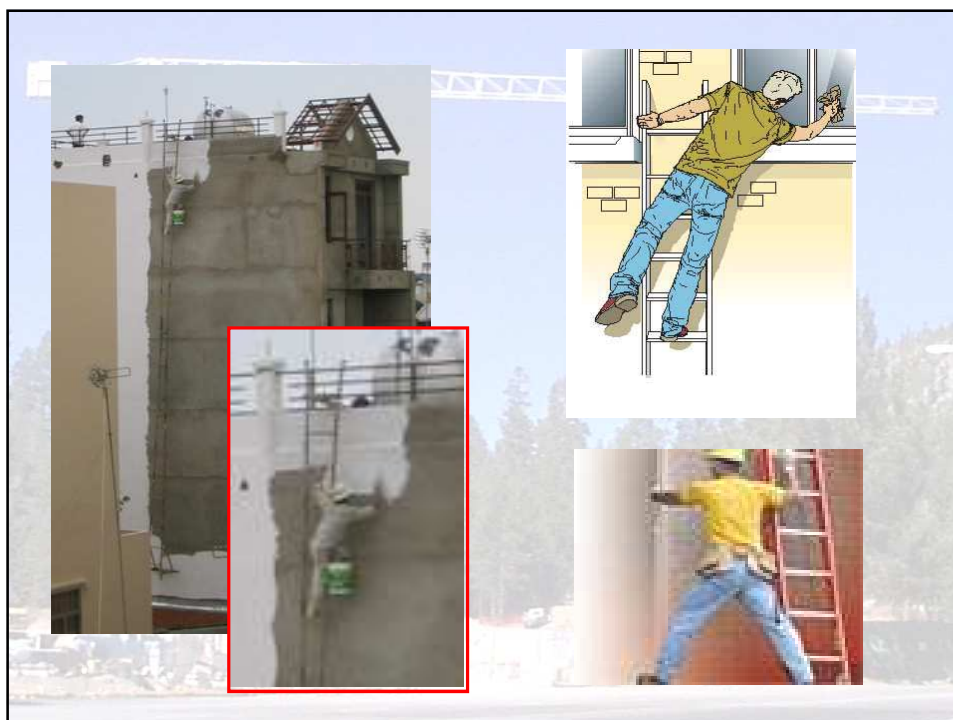
- not be placed in passageways, doorways, driveways, ...unless protected by barricades or guards.



§3276(e)(15) Climbing and Working on Ladders.

(A) The employee shall climb or work with the body near the middle of the step or rung and shall not overreach from this position.

- When necessary to avoid overreaching, the employee shall descend and reposition the ladder.
- When it is not practical to work with the body near the middle of the step or rung, the ladder shall be secured to the top support, and the employee shall be protected by a personal fall protection system.



§3276(e)(15) Climbing and Working on Ladders.

(B) prohibited from carrying equipment or materials

(C) face the ladder and maintain contact with the ladder at three-points at all times.

NOTE: Contact with the ladder at three points means two feet and one hand, or two hands and one foot which is safely supporting the user's weight.



§3276(e)(15) Climbing and Working on Ladders.

(D) An employee shall not be permitted to stand and work on the top 3 rungs of a single or extension ladder unless ...

(E) Employees shall not stand on the topcap or the step below the topcap of a step ladder.



§3276(e)(15) Climbing and Working on Ladders.

- (F) Cross-bracing on the rear section of step ladders shall not be used for climbing...
- (G) Ladders shall not be moved, shifted, or extended while occupied, unless the ladder is designed and recommended for this purpose by the manufacturer.

§3276(e)(16) Prohibited Uses.

- (A) Ladders shall not be used as a brace, skid, guy or gin pole, gangway, or for other uses than that for which they were intended,
- (B) Planks shall not be used on the top step or topcap of step ladders.
- (C) Step ladders shall not be used as single ladders or in the partially closed position.



§3276(e)(16) Prohibited Uses.

<i>Ladder Type</i>	<i>Max Length (Ft)</i>
Step ladder.	20
Two-section extension ladder (wood).	60
Two-section extension ladder (metal).	48
Three-section extension ladder (metal).	60
Two-section extension ladder (reinforced plastic).	72
Trestle ladder.	20
Extension trestle ladder base section.	20
Extension trestle ladder extension section.	20
Painter's step ladder.	12
Mason's ladder.	40
Cleat ladder.	30
Trolley ladder or side-rolling ladder.	20
Single ladder.	30

§3276(e) Care, Use, Inspection and Maintenance of Ladders.

- (17) Portable rung ladders with reinforced rails shall be used only with the metal reinforcement on the under side.
- (18) Electrical Hazards. Non-conductive ladders shall be used in locations where...
- (19) The area around the top and bottom of a ladder shall be kept clear.



§3276. Use of Ladders.

(f) Employee Training. Before an employee uses a ladder, the employee shall be provided training

- (1) Importance of using ladders safely,
- (2) Selection, (type length capacity)
- (3) Maintenance, inspection, and removal
- (4) Erecting ladders,
- (5) Climbing and working on ladders,
- (6) Factors contributing to falls, ...
- (7) Prohibited uses



"You weren't listening. I said, 'Don't fall.'"