ANSI-ASC A14.1-2007

American National Standard for Ladders — Wood Safety Requirements

American National Standards

ANSI-ASC A14.1-2007
Revision of ANSI A14.1-2000

American National Standard for Ladders-Wood Safety Requirements

Secretariat
American Ladder Institute

Approved August 20, 2007
American National Standards Institute, Inc.

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American National Standard

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Forward

(This Foreword is not a part of American National Standard A14.1-1994.)

This standard is a revision of American National Standard Safety Requirements for Portable Wood Ladders, ANSI A14.1-2000. It is one of a series of many standards prepared under the supervision of American National Standards Committee on Safety in the Construction, Care, and Use of Ladders, A14. All of the standards have been developed by subcommittees reporting to American National Standards Committee A14. The subcommittees are: A14.1, Portable Wood Ladders; A14.2, Portable Metal Ladders; A14.3, Fixed Ladders; A14.4, Job-Made Ladders; A14.5, Portable Reinforced Plastic Ladders; and A14.9, Ceiling Mounted Disappearing Climbing Systems.

All standards, with the exception of A14.7-1991, Mobile Ladder Stands, derive from the original American National Standard Safety Code for Construction, Care, and Use of Ladders, A14, which was first approved in 1923. Revisions were approved in 1935, 1948, and 1952.

The earlier editions contained some treatment of metal and fixed ladders. Requirements for these types of ladders were removed from the 1948 revision because rapid development in the metal ladder field warranted special consideration and treatment of metal ladders and fixed ladders (usually metal) in separate standards. In 1948, the code was revised and its title and designation changed to American National Standard Code for Wood Ladders, A14.1. In 1952, it was again revised and retitled American National Standard Safety Code for Portable Wood Ladders. It was further revised in 1959, 1968, 1980, and 1982.

Responding to a Consumer Product Safety Commission challenge in August 1975, the A14 Committee mounted a three-prong attack to upgrade the portable ladder standards within the consensus framework of developing standards. Three Task Forces — Anthropometric, Testing, and Labeling — were established in October 1975.

Without question, the most massive and technically difficult task, which included a significant amount of human-factors work, was carried out by the Testing Task Force. Over 100 known ladder experts were solicited to join this task force and provide their technical expertise. The work involved 50 meetings, over 400 test documents, and the use of numerous test ladders over a period of nearly two years. The cost of the project has been conservatively estimated at over $300,000.

At the August 11, 1977, joint meeting of the Testing Task Force and the A14 Advisory Committee, 23 procedures were presented. These procedures, with an accompanying rationale based upon statistical and human-factors data, were distributed to the three portable-ladder subcommittees for review and incorporation into the standards. Recommendations for nomenclature and for care and use of ladders have been included in the Appendixes, had been previously balloted in order that this more technical material from the Testing Task Force receive the full attention of the three subcommittees.

Test procedures were developed for three different applications; namely, design verification, quality control, and in-service testing. Design verification tests would generally be conducted on a one-time basis during the original design development of the product and would usually be destructive tests. Quality control tests would be conducted by the manufacturer on an on-going basis; some of the tests would be destructive and some would be nondestructive. In-service tests would be conducted by the user on a periodic basis and would be nondestructive in nature.

The A14 Committee adopted June 4, 1982*, as the effective date of ANSI A14.1-1981. This was to allow the manufacturers the necessary lead time to evaluate their products for conformance to the 1981 edition of the three portable-ladder standards, to redesign and test their products where applicable, to design and build the required manufacturing tooling and machinery, and to convert their manufacturing operations to produce the revised products.

In 1981, experience by some of the manufacturers indicated that the inclined load test was not practical when applied to all available lengths of extension ladders. Also, recommendations were received for clarifications in test procedure descriptions.

In the course of resolving these questions, evidence was produced to warrant modifications in the label test requirements. As a result, it became necessary to postpone the effective date of these standards from June 4, 1982, to October 4, 1982, to allow investigations which brought about needed changes in label test specifications.

In September 1991, an errata sheet was added to allow an extension beyond November 10, 1991, of 90 days to use existing stocks of labels.

On November 17, 1994, the A14 committee agreed to specify residential non-waxed vinyl sheet floor covering for test surfaces as needed.

In the 1994 revision, two new sections on double front ladders were added along with two new labels/markings for these ladders.

This 2007 standard contains editorial changes which align the presentation with ANSI A14.2 and A14.5 standards for metal and plastic ladders, respectively.

Suggestions for improvement of this standard will be welcomed. They should be sent to the American Ladder Institute.

The standard was processed and approved for submittal to ANSI by American National Standards Committee on Safety in the Construction, Care, and Use of Ladders, A14. Committee approval of the standard does not necessarily imply that all the committee members voted for its approval. At the time it approved this standard, the A14 Committee had the following members:

** The original effective date was March 4, 1982.*

Erick Knox, Chairman
Don Gibson, Vice Chairman
Ron Pietrzak, Administrative Secretariat

Organization Represented	**Name of Representative**
American Insurance Association	George Earhart
	Thomas Murray (Alt)
American Ladder Institute	Marc McConnell
American Society of Safety Engineers	Earnest Harper
	Michael Lorenzo (Alt)
Associated General Contractors of America	Charles Bird
Canadian Standards Association	Walter Dick
Cosco Home and Office Products	Eric Kruse
	Terry Emerson (Alt)
Disappearing Attic Stairway Association	Dennis Williams
	Brad Hudspeth (Alt)
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International Brotherhood of Electrical Workers	James Tomaseski
International Brotherhood of Painters and Allied Trades	Dan Penski
	Mike Metz (Alt)
International Union of Bricklayers & Allied Craftsmen	Anthony Kassman
Metal Ladder Manufacturers Association	Dave Plotner
	Dale King (Alt)
National Fire Protection Association	Samuel C. Cramer
	Ronald Bennett (Alt)
National Frame Builders Association	Stan Virkler
Precision Ladders	Don McKinney
	Steve Richey (Alt)

Risk Retention Services . . . . . Paul B. Junius
Robert G. Stuligross (Alt)
Scaffold Industry Association . . . . . Alan Kline (Alt)
Steel Plate Fabricators Association . . . . . Wallace Melvin
Underwriter's Laboratories . . . . . Edgar Wolff-Klammer
U.S. Consumer Product Safety Commission . . . . . Thomas Caton*
Mark E. Kumagai (Alt)*
U.S. Department of Labor OSHA . . . . . Virginia Fitzner*
Robert Bell (Alt)*
Independent Specialists . . . . . Donald Bloswick
John E. Johnson
George H. Kyanka
Irving Ojalvo
Steven Cramer

*non-voting advisory member

Subcommittee A14.1, which developed this standard, had the following members:

George H. Kyanka, Chairman
A.L. DeBonis
Don Gibson
Alan Kline
Robert F. Nissly
Edgarr Wolff-Klammer

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American National Standard for Ladders — Wood — Safety Requirements

1. Scope and Purpose

1.1 Scope

This standard prescribes rules and establishes minimum requirements for the construction, testing, care, and use of the common types of portable wood ladders described herein in order to ensure safety under normal conditions of usage. Ladder Types included are:

Duty Rating	Ladder Type	Working Load (pounds)
Extra Heavy-Duty	IA	300
Heavy-Duty	I	250
Medium-Duty	II	225
Light-Duty	III	200

It does not cover step stools (furniture type), except ladder-type step stools (see 6.4.4 for other exceptions). It also does not cover ladder accessories, including, but not limited to, ladder shoes, ladder levelers, ladder stabilizers or standoff devices, ladder jacks, or ladder straps and hooks, that may be installed on or used in conjunction with ladders.

Note: While ladder type stools are covered by A14.1, it is recognized that a step stool standard is under development. When the step stool standard is approved, A14.1 will no longer cover ladder type step stools. The new standard will be A14.11.

These requirements are also intended to prescribe rules and criteria for labeling/marking of the kinds of portable ladders cited in this standard, but exclusive of furniture type step stools and special purpose ladders. These labeling/marking requirements do not apply to those situations where training, supervision, or documented safety procedures would be in conflict, or serve in lieu of, these labeling/marking requirements.

1.2 Purpose

The purpose of this standard is to provide reasonable safety for life, limb, and property. In order to develop an effective safety program, the standard may serve also as a basis for purchase requirements and for instructions in personnel training. It may also assist in the preparation of motivational/instructional material such as safety practices, manuals, posters, and the like. This standard is also intended to provide the manufacturer, purchaser, and user of wood ladders with a set of specifications and requirements against which a ladder may be compared.

It is not the purpose of this standard to specify all the details of construction of portable wood ladders. The limitations imposed are for the purpose of providing adequate general requirements and testing methods needed for consistency.

2. General

2.1 Rationale

A rationale has been developed covering the specifications and performance requirements of this standard.[1]

2.2 Application

This standard is intended for voluntary use by establishments that use, manufacture, or evaluate ladders. It is also designed to serve as a guide for federal and state authorities or other regulatory bodies in the formulation of laws or regulations.

The methods employed to ensure the proper regulatory or administrative authority should determine compliance with this standard.

2.3 Interpretation

To secure uniform application of this standard, it is recommended that suggestions involving changes in the requirements or disputes over its interpretation shall be referred to the A14 Administrative Secretariat.

[1] The rationale is on file with the Secretariat, American Ladder Institute, 401 N. Michigan Avenue, Chicago, IL 60611.

ANSI-ASC A14.2-2007

American National Standard for Ladders — Portable Metal — Safety Requirements

American National Standards

ANSI®-ASC A14.2-2007
Revision of ANSI A14.2 2000

American National Standard for Ladders — Portable Metal — Safety Requirements

Secretariat
American Ladder Institute

Approved August 20, 2007
American National Standards Institute, Inc.

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Foreword

(This Foreword is not a part of American National Standard A14.2-2007.)

This standard on portable ladders is one of many American National Standards prepared under the supervision of the ANSI Accredited Standards Committee on Safety in the Construction, Care, and Use of Ladders, A14. Subcommittees that report to the American National Standards Committee A14 have developed all of the standards. The subcommittees are A14.1, Portable Wood Ladders; A14.2, Portable Metal Ladders; A14.3, Fixed Ladders, A14.4, Job-Made Ladders; and A14.5, Portable Reinforced Plastic Ladders, and 14.9, Ceiling Mounted Disappearing Climbing Systems.

All standards, except A14.7 Mobile Ladders Stands and Mobile Ladder Stand Platforms, derive from the original American National Standards Safety Code for Construction, Care, and Use of Ladders, which was first approved on July 25, 1923. Revisions were approved on April 11, 1935; April 2, 1948; and November 10, 1952.

The earlier editions contained some treatment of metal and fixed ladders. Requirements for these types were removed from the 1948 revision because rapid development in the metal ladder field warranted special consideration and treatment of metal ladders, and fixed ladders (usually metal) in separate standards.

The Metal Ladder Manufacturers Association is responsible for initiating the standard on portable metal ladders. This group prepared the original draft and submitted it to Standards Committee A14 for consideration in May 1951. Subcommittee A14.2 was then created to review the document and make any changes necessary to conform to the requirements of all the interested groups. After consideration and some revision by the subcommittee, nearly 200 copies of the draft were sent to various organizations and individuals for review and comment. The suggestions received were considered in the preparation of the final draft, which was submitted to the Standards Committee for letter ballot in December 1955, and approved in 1956. Subcommittee A14.2 also developed the 1972 edition.

Responding to a Consumer Product Safety Commission challenge in August 1975, the A14 Committee mounted a three-prong attack to upgrade the portable ladder standards within the consensus framework of developing standards. Three Task Forces — Anthropometric, Testing, and Labeling — were established in October 1975.

Without question the Testing Task Force carried out the most massive technically difficult task, which included a significant amount of human-factors work. Over 100 known ladder experts were solicited to join this task force and provide their technical expertise. The work involved 50 meetings, over 400 test documents and the use of numerous test ladders over a period of nearly two years. The cost of the project has been conservatively estimated at over $300,000.

At the August 11, 1977, joint meeting of the Testing Task Force and the A14 Advisory Committee, 23 procedures were presented. These procedures, with an accompanying rationale based upon statistical and human factors data, were distributed to the three portable-ladder subcommittees for review and incorporation into the standards. Recommendations for nomenclature, and for care and use of ladders had been previously balloted. In addition, the Ladder Use Survey Form and Bi-Level Fall Victim Report Form (that have been included in the Appendixes), had also been balloted so the more technical material from the Testing Task Force could receive full attention of the three subcommittees.

Test procedures were developed for three different applications, namely, design verification, quality control, and in-service testing. Design verification tests would generally be conducted on a one-time basis during the original design development of the product and would usually be destructive tests. The manufacturer on an on-going basis would conduct quality control tests; some of the tests would be destructive and some would be nondestructive. In-service tests would be conducted by the user on a periodic basis and would be nondestructive in nature.

ANSI A14.2-1981 was approved March 4, 1980 with an effective date of March 4, 1982. This 2 year period was to allow the manufacturers the necessary lead time to evaluate their products for conformance to the 1981 edition of the three portable ladder standards, to redesign and test their products where applicable, to design and build the required manufacturing tooling and machinery, and to convert their manufacturing operations to produce the revised products.

During development of product for compliance with the 1981 revision, experience by some of the manufacturers indicated that the inclined load test was not practical when applied to all available length ladders. Also, recommendations were received for clarifications in test procedure descriptions. In the course of resolving these questions, evidence was produced to warrant modifications in the label test requirements and further investigations brought about changes in the label test specifications.

To allow time for investigating these issues, the effective date of the 1981 revision was postponed to June 4, 1982 and then to October 4, 1982. Once the issues were resolved, ANSI A14.2-1982 was approved with the needed changes incorporated and an effective date of October 4, 1982.

In the 1990 revision, several issues, which had arisen since the 1982 revision, were addressed. Most significantly, requirements were developed to cover the multipurpose articulated ladder. In addition the label/marking section improved the graphics as well as presented new labels.

Considerable effort went into preparing the 2000 revision to assure consistency between the A14.2 standard for portable metal ladders and the new revisions of A14.1 (portable wood ladders) and A14.5 (portable reinforced plastic ladders) standards.

In this current revision, several issues, which have arisen since the last revision, are addressed. As a result of efforts by an Articulated Ladder Task Force, additional dynamic testing has been added to the testing requirements for articulated ladders. Additionally, requirements for ladders with a 375 pound duty rating, designated as "Special Duty Type IAA" are now being incorporated within the ANSI A14.2 and A14.5 standards. Requirements for Special Duty Type IAA ladders were previously developed and issued in the ANSI A14.10-2000 standard. The A14.10 subcommittee was originally formed in order to *quickly* respond to a petition to ANSI by cable TV and electric companies for a higher duty rating ladder. After incorporation of the Special Duty Type IAA requirements into the A14.2 and A14.5 standards, the A14.10 standard will be withdrawn.

Each revision of the standard was processed and approved for submittal to ANSI by American National Standards Committee on Safety in the Construction, Care, and Use of Ladders, A14. Committee approval of the standard does not necessarily imply that all the committee members voted for its approval.

Suggestions for improvement of this standard are welcome. They should be sent to the American Ladder Institute, 401 N. Michigan Ave., Chicago, IL 60611.

At the time it approved this standard, the A14 Committee had the following members:

Erick Knox, Chairman
Don Gibson, Vice Chair
Ron Pietrzak, Administrative Secretariat

Organization Represented	**Name of Representative**
American Insurance Association	George Earhart
	Thomas Murray (Alt)
American Ladder Institute	Marc McConnell
American Society of Safety Engineers	Earnest Harper
	Michael Lorenzo (Alt)
Associated General Contractors of America	Charles Bird
	John O'Donovan (Alt)
Canadian Standards Association	Walter Dick
Cosco Home and Office Products	Eric Kruse
	Terry Emerson (Alt)
Disappearing Attic Stairway Association	Dennis Williams
	Brad Hudspeth (Alt)

Illinois Association of Building Maintenance Contractors . . . . . Carl Pedersen
James Weil (Alt)
International Brotherhood of Electrical Workers . . . . . James Tomaseski
International Brotherhood of Painters and Allied Trades . . . . . Dan Penski
Mike Metz (Alt)
International Union of Bricklayers & Allied Craftsmen . . . . . Anthony Kassman
Metal Ladder Manufacturers Association . . . . . Dave Plotner
Dale King (Alt)
National Fire Protection Association . . . . . Samuel C. Cramer
Ronald Bennett (Alt)
National Frame Builders Association . . . . . Stan Virkler
Precision Ladders. . . . . Don McKinney
Steve Richey (Alt)
Risk Retention Services. . . . . Paul B. Junius
Robert G. Stuligross (Alt)
Scaffold Industry Association . . . . . Alan Kline (Alt)
Steel Plate Fabricators Association . . . . . Wallace Melvin
Underwriter's Laboratories . . . . . Edgar Wolff-Klammer
U.S. Consumer Product Safety Commission . . . . . Thomas Caton*
Mark E. Kumagai (Alt)*
U.S. Department of Labor OSHA. . . . . Virginia Fitzner*
Robert Bell (Alt)*
Independent Specialists. . . . . Donald Bloswick
John E. Johnson
George H. Kyanka
Irving Ojalvo
Steven Cramer

*non-voting advisory member

Subcommittee A14-2 on portable ladders, which revised this standard, consists of the following members:

Erick Knox, Chairman
R. Bennett
D. Gibson
J. E. Johnson
J. Krafchick
I. Ojalvo
D. Plotner
T. Schmitt
M. Silverman
M. VanBree
K. Vidal
E. Wolff-Klammer

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American National Standard for Ladders — Portable Metal — Safety Requirements

1. Scope and Purpose

1.1 Scope

This standard prescribes rules governing the safe construction, design, testing, care and use of portable metal ladders of various types and styles. Ladder Types included are:

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

Ladder styles include ladder type step stools, portable extension, step, trestle, sectional, combination, single, platform, and articulating ladders, but excluding ladders in and on mines, the fire services, mobile equipment, hoisting equipment, work platforms, antenna communications towers, transmission towers, utility poles, and chimneys. It does not cover special-purpose ladders that do not meet the general requirements of this standard, nor does it cover ladder accessories, including, but not limited to, ladder levelers, ladder stabilizers or stand-off devices, ladder jacks, or ladder straps or hooks, that may be installed on or used in conjunction with ladders.

Note: Ladder type step stools are covered by A14.2. It is recognized that a step stool standard is under development. When the step stool standard is approved, A14.2 will no longer cover ladder type step stools.

These requirements are also intended to prescribe rules and criteria for labeling/marking of the kinds of portable ladders cited in this standard, but exclusive of furniture type step stools and special purpose ladders. These labeling/marking requirements do not apply to those situations where training, supervision, or documented safety procedures would be in conflict, or serve in lieu of, these labeling/marking requirements.

1.2 Purpose

The purpose of this standard is to provide reasonable safety for life, limb, and property. In order to develop an effective safety program, the standard may serve also as a basis for purchase requirements and for instructions in personnel training, and in the preparation of motivational/instructional material such as safety practices, manuals, posters, and the like.

This standard is also intended to provide the manufacturer, purchaser, and user of metal ladders with a set of performance and dimensional requirements against which this product may be compared. It is not the purpose of this standard to specify all the details of construction of portable metal ladders. The limitations imposed are for the purpose of providing adequate general requirements and testing methods needed for consistency.

2. General

2.1 Rationale

A rationale has been developed covering the specifications and performance requirements of this standard.[1]

2.2 Application

This standard is intended for voluntary use by establishments that use, manufacture or evaluate ladders. It is also designed to serve as a guide to federal and state authorities or other regulatory bodies in the formulation of laws or regulations.

The methods employed to ensure compliance with this standard shall be determined by the proper regulatory or administrative authority.

[1]The rationale is on file with the Secretariat. American Ladder Institute, 401 N. Michigan Avenue, Chicago, IL. 60611.

ANSI-ASC A14.3-2008
Revision of A14.3-2002

American National Standard for Ladders – Fixed – Safety Requirements

American National Standards

ANSI-ASC® A14.3-2008
Revision of ANSI A14.3 2002

American National Standard for Ladders – Fixed – Safety Requirements

Secretariat
American Ladder Institute

Approved October 31, 2008
American National Standards Institute, Inc.

For information on possible errata sheets and other ANSI-ASC A14 Standards please refer to the ALI website located at:
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Printed in the United States of America

Foreword

(This Foreword is not a part of the American National Standard A14.3 – 2008.)

This standard is a revision of American National Safety Standard for Fixed Ladders, ANSI A14.3-2002. It is one of a series of seven standards prepared under the supervision of American National Standards Committee ASC A14. All seven standards have been developed by subcommittees reporting to American National Standards Committee ASC A14. The subcommittees are: A14.l, Portable Wood Ladders; A14.2, Metal Ladders; A14.3, Fixed Ladders; A14.4, Job-Made Ladders, A14.5, Portable Reinforced Plastic Ladders, A14.7, Mobile Ladder Stands and Mobile Ladder Stand Platforms, and A14.9, Ceiling Mounted Disappearing and Climbing Systems.

All seven standards derive from the original American National Standard Safety Code for Construction, Care and Use of Ladders, A14, which was first approved in 1923. Revisions were approved in 1935, 1948, 1952, 1984, 1992, and 2002. Prior to the 1948 revision, the Code contained some treatment of metal and fixed ladders. Requirements for these types of ladders were removed from the 1948 revision, which then became the American National Standard for Wood Ladders, ANSI A14.1 – 1948, because, in the opinion of the committee, the rapid development in the metal ladder field warranted special consideration and treatment of metal ladders and fixed ladders (usually metal) in separate standards.

Subcommittee A14.3 was created for the purpose of reviewing the data on fixed ladders originally contained in the Code prior to the 1948 revision, and making any changes or additions necessary to conform to the requirement of interested groups. The A14.3 standard was submitted to the ASC A14 Committee for letter ballot in December of 1955 and approved in 1956. A revision was published in 1974, 1984, 1992, and 2002.

This revision addresses a new section on ladder security systems, and changes to graspability in roof hatches, modifications of ladder safety systems, maintenance, use and additional figures to assist document users.

Suggestions for improvement of this standard will be welcome. They should be sent to the ASC A14 Committee c/o the American Ladder Institute at 401 N. Michigan Avenue, Chicago, IL 60611. All comments must be sent on the Official Comment Form that can be found on the last page of this document. Each comment must include a rationale.

This standard was processed and approved for submittal to ANSI by American National Standards Committee on the safety requirements for fixed ladders, ASC A14. Committee approval of the standard does not necessarily imply that all the committee members voted for its approval. At the time it approved this standard, the A14 Committee had the following members:

Erick Knox, Chairman
Don Gibson, Vice Chair
Ron Pietrzak, Secretariat

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American Insurance Association	George Earhart
American Ladder Institute	Marc McConnell
American Society of Safety Engineers	Earnest Harper
	Michael Lorenzo (Alt)
Associated General Contractors of America	Charles Bird
	Michele Myers (Alt)
Canadian Standards Association	Walter Dick
Cosco Home and Office Products	Eric Kruse
	Terry Emerson (Alt)
Disappearing Attic Stairway Association	Dennis Williams
	Brad Hudspeth (Alt)
Illinois Association of Building Maintenance Contractors	Carl Pedersen
	James Weil (Alt)
International Brotherhood of Electrical Workers	James Tomaseski
International Union of Painters and Allied Trades	Dan Penski
	Mike Metz (Alt)
International Union of Bricklayers & Allied Craftsmen	Anthony Kassman
Metal Ladder Manufacturers Association	Dave Plotner
	Dale King (Alt)
National Fire Protection Association	Samuel C. Cramer
	Ronald Bennett (Alt)
National Frame Builders Association	Stan Virkler
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	Steve Richey (Alt)
Risk Retention Services	Paul B. Junius
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U.S. Consumer Product Safety Commission	Thomas Caton*
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U.S. Department of Labor OSHA	Virginia Fitzner*
	Robert Bell (Alt)*
Independent Specialists	Donald Bloswick
	John E. Johnson
	George H. Kyanka
	Irving Ojalvo
	Steven Cramer

*non-voting advisory member

Subcommittee A14.3 on Safety Requirements for Fixed Ladders, which developed this standard, had the following members:

James D. Smith, Chairman

Ronald Bennett
J. Nigel Ellis
Donald Bloswick
Tom Wolner
Sharon Morales
Thomas Bresnahan

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American National Standard for Ladders — Fixed — Safety Requirements

1. General

1.1 Scope

This standard prescribes minimum requirements for the design, construction, and use of fixed ladders, and sets forth requirements for cages, wells, and ladder safety systems used with fixed ladders, in order to minimize personal injuries. All parts and appurtenances necessary for a safe and efficient ladder shall be considered integral parts of the design.

1.2 Purpose.

The purpose of this standard is to provide safety for life, limb, and property by establishing minimum standards for the design and installation of fixed ladders.

1.3 Application.

The methods employed to ensure compliance with this standards shall be determined by the proper regulatory or administrative authority.

1.4 Pitch.

This standard covers fixed ladders within the pitch range of 60 to 90 degrees from the horizontal.

1.4.1 Preferred Pitch. The preferred pitch of fixed ladders shall be considered to be within the range of 75 to 90 degrees from the horizontal (See Fig. 1).

1.4.2 Substandard Pitch. Fixed ladders shall be considered substandard if they are installed within the substandard pitch range of 60 to 75 degrees from the horizontal.

1.4.3 Pitch Greater Than 90 Degrees. Ladders having a pitch in excess of 90 degrees from the horizontal shall not be permitted.

1.5 Exceptions

1.5.1 This standard is intended for application to the types of fixed structures depicted and described in the standard (i.e., buildings, wells, and shafts). It sets forth the criteria (what is needed) necessary to build a fixed ladder in a certain way and manner (how to build). The standard does not contemplate special or unique (as to where and when) applications of the requirements, although individual requirements, or a combination of requirements, may apply universally.

1.5.2 This standard establishes requirements for fixed ladders in order to promote a greater degree of standardization. In cases where difficulty is encountered in complying with the standard, or where there are special service conditions, it is expected that the administrative authority will grant exceptions from the literal requirements of the standards, or will permit the use of alternative designs or features, if equivalent safety is thereby secured (see 1.9).

1.6 Existing Installation

1.6.1 The requirements of this standard shall not apply to existing installations, provided they meet one of the following conditions:

(1) The installation was made in compliance with a state, federal, or consensus standard that was in existence and applicable at the time of installation, and documentation is available to substantiate this.

(2) The installation differs from the design measurements of this standard by a degree, determined by an individual competent in structural design, such that its performance will not substantially deviate from the requirements of this standard.

1.6.2 If the existing installation is subsequently modified or replaced, or if repairs on more than 25 percent of the total unit are required, the installation shall be made to conform to the requirements of this standard.

ANSI-ASC A14.4-2009
Revision of A14.4-2002

American National Standard Safety Requirements for Job-Made Wooden Ladders

American National Standards

ANSI-ASC® A14.4-2009
Revision of ANSI A14.4 2002

American National Standard Safety Requirements for Job-Made Wooden Ladders

Secretariat
American Ladder Institute

Approved March 10, 2009
American National Standards Institute, Inc.

For information on possible errata sheets and other ANSI-ASC A14 Standards please refer to the ALI website located at:
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American National Standard

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Foreword

(This Foreword is not a part of the American National Standard A14.4 – 2009.)

This standard is a revision of American National Safety Standard for Job-Made Wooden Ladders, ANSI A14.4-2002. It is one of a series of seven standards prepared under the supervision of American National Standards Committee ASC A14. All seven standards have been developed by subcommittees reporting to American National Standards Committee ASC A14. The subcommittees are: A14.l, Portable Wood Ladders; A14.2, Metal Ladders; A14.3, Fixed Ladders; A14.4, Job-Made Wooden Ladders, A14.5, Portable Reinforced Plastic Ladders, A14.7, Mobile Ladder Stands and Mobile Ladder Stand Platforms and A14.9, Ceiling Mounted Disappearing Climbing Systems.

Subcommittee A14.4 was created for the purpose of developing a safety standard covering job-made wooden ladders used on construction sites. It had been the recommendation of the American National Standards Committee on Safety in Construction and Demolition Operations, AlO, and the ANSI Safety Technical Advisory Board that a safety standard for job-made wooden ladders be developed by American National Standards Committee on Construction, Care, and Use of Ladders, ASC A14, and Subcommittee A14.4 on Job-Made Wooden Ladders was established by vote of the ASC A14 Standards Committee at a meeting on May 23, 1972.

Following are the most significant aspects of this current revision:

- Table 1 has been simplified by listing those acceptable lumber grades that are most commonly available, by allowing all lumber grades that meet a minimum threshold, and by allowing the use of lower grade lumber when corresponding ladder components are increased in size.
- Engineering calculations were made affirming the grades and sizes specified in Tables 1, 2 and 3.
- Language on safe use of ladders was simplified for clarity and consistency with other standards.
- Figures were revised with dimensioning details adjusted to coincide with other standards and safer recommended practice.

Suggestions for improvement of this standard will be welcome. They should be sent to the ASC A14 Committee c/o the Amercian Ladder Institute at 401 N. Michigan Avenue, Chicago, IL 60611. All comments must be sent on the Official Comment Form that can be found on the last page of this document. Each comment must include a rationale.

This standard was processed and approved for submittal to ANSI by American National Standards Committee on Construction, Care, and Use of Ladders, ASC A14. Committee approval of the standard does not necessarily imply that all the committee members voted for its approval. At the time it approved this standard, the ASC A14 Committee had the following members:

Erick Knox, Chairman
Don Gibson, Vice Chair
Janet Rapp, Secretariat

Organization Represented	Name of Representative
American Insurance Association	George Earhart
	Thomas Murray (Alt)
American Ladder Institute	Marc McConnell
American Society of Safety Engineers	Michael Lorenzo
Associated General Contractors of America	Charles Bird
	Michele Myers (Alt)
Canadian Standards Association	Walter Dick
Cosco Home and Office Products	Eric Kruse
	Terry Emerson (Alt)
Disappearing Attic Stairway Association	Dennis Williams
	Brad Hudspeth
Illinois Association of Building Maintenance Contractors	Carl Pedersen
	James Weil (Alt)
International Brotherhood of Electrical Workers	James Tomaseski
International Brotherhood of Painters and Allied Trades	Brian Gustine
International Union of Bricklayers & Allied Craftsmen	Henry Kramer
	Mike Kassman (Alt)
Metal Ladder Manufacturers Association	Dave Plotner
	Dale King (Alt)
National Fire Protection Association	Samuel C. Cramer
	Ronald Bennett (Alt)
National Frame Builders Association	Stan Virkler
Precision Ladders	Don McKinney
	Steve Richey (Alt)
Risk Retention Services	Paul B. Junius
	Robert G. Stuligross (Alt)
Scaffold Industry Association	Alan Kline (Alt)
Steel Plate Fabricators Association	Wallace Melvin
U.S. Consumer Product Safety Commission	Thomas Caton*
	Mark E. Kumagai (Alt)*
U.S. Department of Labor OSHA	Virginia Fitzner*
	Robert Bell (Alt)*
Independent Specialists	Donald Bloswick
	John E. Johnson
	George H. Kyanka
	Irving Ojalvo
	Steven Cramer

*non-voting advisory member

Subcommittee A14.4 on Job-Made Wooden Ladders, which developed this standard, had the following members:

Steven Cramer, Chairman

David Allie
Charlie Bird
Peter Ruvalcaba
Mike Van Bree
Dan Zarletti

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American National Standard Safety Requirements for Job-Made Wooden Ladders

1. General

1.1 Scope

This safety standard prescribes minimum requirements and recommendations for the construction, design, installation, and use of job-made wooden ladders in order to minimize personal injuries. This standard does not cover portable manufactured or portable job-made ladders, permanent fixed ladders, or mobile-equipment ladders.

1.2 Purpose.

The purpose of this standard is to provide reasonable safety for life and limb during any construction or demolition operation where conditions are not practical or permit the erection of temporary stairs or ramps. This standard provides a guide for compliance with minimum required specifications when job-made wooden ladders are being constructed for temporary access on construction and demolition operations.

1.3 Characteristics of a Job-Made Ladder.

Job-made ladders are custom-made to fit specific job situations during construction or demolition operations. Their primary purpose is to provide access to or egress from a work area. Job-made access ladders are not intended to serve as a work station. They are temporary in nature and serve only until a particular phase of work is completed or until permanent stairways or fixed ladders are ready for use.

1.4 Application.

This standard is designed for voluntary adoption by contractors or to serve as a guide to governmental authorities or other regulatory bodies in the formation of laws or regulations. The methods to be employed to assure compliance with this standard shall be determined by the proper regulatory or administrative authority. To secure uniform application of this standard, it is recommended that suggestions involving changes in the requirements or questions over the interpretation of them be referred to the American National Standards Institute, 11 West 42nd St., New York, N.Y. 10036 or to the secretariat of this standard: American Ladder Institute, 401 N. Michigan Avenue, Chicago, IL 60611.

1.5 Mandatory and Advisory Rules.

The word “shall” is to be understood as denoting a mandatory requirement. The work “should” is to be understood as denoting a recommendation.

1.6 Equivalent.

The word “equivalent” in this standard means a construction, connection, or material providing equal performance.

2. Related Standards

This standard is intended for use in conjunction with the following American National Standards or latest revision:

Standard Specifications for Adhesives for Structural Laminated Wood Products, ASTM D2559-2004

National Institute of Standards and Technology, American Softwood Lumber Standard, PS 20-05

3. Definitions

Cleats. Horizontal ladder crosspieces used by a person in ascending or descending a ladder. Sometimes called steps or rungs.

Double-cleat ladder. A job-made wooden ladder with two side rails and a center rail, all connected with continuous cleats, and of sufficient width to allow for two-way traffic for personnel ascending and descending.

Ladder. A device incorporating or employing steps, rungs, or cleats on which a person may ascend or descend.

ANSI-ASC A14.5-2007

American National Standard for Ladders — Portable Reinforced Plastic — Safety Requirements

American National Standards

ANSI-ASC® A14.5-2007
Revision of ANSI A14.5 2000

American National Standard for Ladders — Portable Reinforced Plastic — Safety Requirements

Secretariat
American Ladder Institute

Approved August 20, 2007
American National Standards Institute, Inc.

For information on possible errata sheets and other ANSI-ASC A14 Standards please refer to the ALI website located at:
www.americanladderinstitute.org

American National Standard

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Printed in the United States of America

Foreword

(This Foreword is not a part of American National standard A14.5-2007.)

This standard on reinforced plastic ladders is one of many American National Standards prepared under the supervision of ANSI Accredited Standards Committee on Safety in the Construction, Care, and Use of Ladders, A14. Subcommittees that report to American National Standards Committee A14 have developed all of the standards. The subcommittees are: A14.1, Portable Wood Ladders; A14.2, Portable Metal Ladders; A14.3, Fixed Ladders; A14.4, Job-Made Ladders; and A14.5, Portable Reinforced Plastic Ladders, and 14.9, Ceiling Mounted Disappearing Climbing Systems.

All standards, except A14.7, Mobile Ladders Stands and Mobile Ladder Stand Platforms, derive from the original American National Standard Safety Code for Construction, Care, and Use of Ladders, which was first approved on July 25, 1923. Revisions were approved in 1935, 1948, and 1952.

The earlier editions contained some treatment of metal and fixed ladders. Requirements for these types were removed from the 1948 revision because rapid development in the metal ladder field warranted special consideration and treatment of metal ladders and fixed ladders (usually metal) in separate standards.

The ensuing years saw the introduction of many new materials. The reinforced plastics and composite development efforts yielded man-made materials that offered advantages when employed in ladders. Initially, the performance test requirements given in American National Standard Safety Requirements for Portable Metal Ladders, A14.2, were used in the design and evaluation of reinforced plastic ladders.

The American Ladder Institute initiated a project that resulted in the development of the Fiberglass Ladder Material Specification, which was approved on October 6, 1971. Further revisions were approved on February 29, 1972 and October 4, 1972.

Concurrently, numerous requests were made to the American Ladder Institute and the American Mutual Insurance Alliance, as the Secretariat of ANSI-ASC A14, to develop an American National Standard on fiberglass ladders. Because of the significant use of reinforced plastic ladders, the recommendation was discussed at the May 23, 1972 meeting of American National Standards Committee A14. Subcommittee A14-5, Portable Reinforced Plastic Ladders, was created as a permanent subcommittee of ANSI-ASC A14 with instructions to develop a performance standard.

Subcommittee membership was solicited from a wide range of organizations representing consumers, manufacturers, and general interest areas. Technical specialists were included with expertise in material manufacture and testing of composite structures.

A preliminary draft was submitted to the A14-5 Subcommittee by the Fiberglass Code Committee of the American Ladder Institute on June 23, 1972. This was reviewed, and the first draft, dated November 1, 1972, was developed following the subcommittee meeting of September 7, 1972. The subcommittee met again on November 16, 1972, to review this draft, which resulted in a second draft. A letter ballot was submitted to the subcommittee membership with this draft soliciting approval.

A working task force from the subcommittee updated the draft to incorporate all relevant comments. The final draft was submitted to American National Standards Committee A14 on February 16, 1973, and was approved by the American National Standards Institute on June 20, 1974.

Responding to a Consumer Product Safety Commission challenge in August 1975, the A14 Committee mounted a three-prong attack to upgrade the portable ladder standards within the consensus framework of developing standards. Three Task Forces — Anthropometric, Testing, and Labeling — were established in October 1975.

Without question the most massive technically difficult task, which included a significant amount of human-factors work, was carried out by the Testing Task Force. Over 100 known ladder experts were solicited to join this task force and provide their technical expertise. The work involved 50 meetings, over 400 test documents, and the use of numerous test ladders over a period of nearly two years. The cost of the project has been conservatively estimated at over $300,000.

At the August 11, 1977, joint meeting of the Testing Task Force and the A14 Advisory Committee, 23 procedures were presented. These procedures, with an accompanying rationale based upon statistical and human factors data, were distributed to the three portable-ladder subcommittees for review and incorporation into the standards. Recommendations for review and incorporation into the standards. Recommendations for nomenclature, and for care and use of ladders, as well as the Ladder Use Survey Form and Bi-Level Fall Victim Report Form that have been included in the Appendixes, had been previously balloted in order that this more technical material from the Testing Task Force would receive the full attention of the three subcommittees.

Test procedures were developed for three different applications, namely, design verification, quality control, and in-service testing. Design verification tests would generally be conducted on a one-time basis during the original design development of the product and would usually be destructive tests. Quality control tests would be conducted by the manufacturer on an on-going basis; some of the tests would be destructive and some would be nondestructive. In-service tests would be conducted by the user on a periodic basis and would be nondestructive in nature.

ANSI A14.2-1981 was approved March 4, 1980 with an effective date of March 4, 1982. This 2 year period was to allow the manufacturers the necessary lead time to evaluate their products for conformance to the 1981 edition of the three portable ladder standards, to redesign and test their products where applicable, to design and build the required manufacturing tooling and machinery, and to convert their manufacturing operations to produce the revised products.

During development of product for compliance with the 1981 revision, experience by some of the manufacturers indicated that the inclined load test was not practical when applied to all available length ladders. Also, recommendations were received for clarifications in test procedure descriptions. In the course of resolving these questions, evidence was produced to warrant modifications in the label test requirements and further investigations brought about changes in the label test specifications.

To allow time for investigating these issues, the effective date of the 1981 revision was postponed to June 4, 1982 and then to October 4, 1982. Once the issues were resolved, ANSI A14.2-1982 was approved with the needed changes incorporated and an effective date of October 4, 1982.

In the 1992 revision, several issues, which had arisen since the 1982 revision, were addressed. Most significantly, requirements were developed to cover the multipurpose articulated ladder. In addition the label/marking section improved the graphics as well as presented new labels.

Considerable effort went into preparing the 2000 revision to assure consistency between the A14.2 standard for portable metal ladders and the new revisions of A14.1 (portable wood ladders) and A14.5 (portable reinforced plastic ladders) standards.

In this current revision, several issues, which have arisen since the last revision, are addressed. As a result of efforts by an Articulated Ladder Task Force, additional dynamic testing has been added to the testing requirements for articulated ladders. Additionally, requirements for ladders with a 375 pound duty rating, designated as “Special Duty Type IAA” are now being incorporated within the ANSI A14.2 and A14.5 standards. Requirements for Special Duty Type IAA ladders were previously developed and issued in the ANSI A14.10-2000 standard. The A14.10 subcommittee was originally formed in order to quickly respond to a petition to ANSI by cable TV and electric companies for a higher duty rating ladder. After incorporation of the Special Duty Type IAA requirements into the A14.2 and A14.5 standards, the A14.10 standard will be withdrawn.

Each revision of the standard was processed and approved for submittal to ANSI by American National Standards Committee on Safety in the Construction, Care, and Use of Ladders, A14. Committee approval of the standard does not necessarily imply that all the committee members voted for its approval.

Suggestions for improvement of this standard are welcome. They should be sent to American Ladder Institute, 401 N. Michigan Ave., Chicago, IL 60611-4267.

At the time it approved this standard, the A14 Committee had the following members:

Erick Knox, Chairman
Don Gibson, Vice Chair
Ron Pietrzak, Administrative Secretariat

Organization Represented	**Name of Representative**
American Insurance Association	George Earhart
	Thomas Murray (Alt)
American Ladder Institute	Marc McConnell
American Society of Safety Engineers	Earnest Harper
	Michael Lorenzo (Alt)

Associated General Contractors of America . . . . . Charles Bird
Canadian Standards Association . . . . . Walter Dick
Cosco Home and Office Products . . . . . Eric Kruse
Terry Emerson (Alt)
Disappearing Attic Stairway Association . . . . . Dennis Williams
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International Brotherhood of Painters and Allied Trades . . . . . Dan Penski
Mike Metz (Alt)
International Union of Bricklayers & Allied Craftsmen . . . . . Anthony Kassman
Metal Ladder Manufacturers Association . . . . . Dave Plotner
Dale King (Alt)
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National Frame Builders Association . . . . . Stan Virkler
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Steel Plate Fabricators Association . . . . . Wallace Melvin
Underwriter's Laboratories . . . . . Edgar Wolff-Klammer
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Mark E. Kumagai (Alt)*
U.S. Department of Labor OSHA. . . . . Virginia Fitzner*
Robert Bell (Alt)*
Independent Specialists. . . . . Donald Bloswick
John E. Johnson
George H. Kyanka
Irving Ojalvo
Steven Cramer

*non-voting advisory member

Subcommittee A14.5 on reinforced plastic ladders, which revised this standard, consists of the following members:

John E. Johnson, Chairman
Ronald Bennett
Don Gibson
Clint Smith
John Vasichko
Edgar Wolff-Klammer
Erick Knox
Dave Plotner
Thomas Schmitt
Mike Van Bree

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American National Standard for Ladders — Portable Reinforced Plastic — Safety Requirements

1. Scope and Purpose

1.1 Scope

This standard prescribes rules governing the safe construction, design, testing, care and use of portable reinforced plastic ladders of various Types and styles. Ladder Types included are:

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

Ladder styles include ladder type step stools, portable extension, step, trestle, sectional, combination, single, platform, and articulating ladders, but excluding ladders in and on mines, the fire services, mobile equipment, hoisting equipment, work platforms, antenna communications towers, transmission towers, utility poles, and chimneys. It does not cover special-purpose ladders that do not meet the general requirements of this standard, nor does it cover ladder accessories, including, but not limited to, ladder levelers, ladder stabilizers or stand-off devices, ladder jacks, or ladder straps or hooks, that may be installed on or used in conjunction with ladders.

Note: Ladder type step stools are covered by A14.5. It is recognized that a step stool standard is under development. When the step stool standard is approved, A14.5 will no longer cover ladder type step stools.

These requirements are also intended to prescribe rules and criteria for labeling/marking of the kinds of portable ladders cited in this standard, but exclusive of furniture type step stools and special purpose ladders. These labeling/marking requirements do not apply to those situations where training, supervision, or documented safety procedures would be in conflict, or serve in lieu of, these labeling/marking requirements.

1.2 Purpose

The purpose of this standard is to provide reasonable safety for life, limb, and property. In order to develop an effective safety program, the standard may serve also as a basis for purchase requirements and for instructions in personnel training, and in the preparation of motivational/instructional material such as safety practices, manuals, posters, and the like.

This standard is also intended to provide the manufacturer, purchaser, and user of reinforced plastic ladders with a set of performance and dimensional requirements against which this product may be compared. It is not the purpose of this standard to specify all the details of construction of portable reinforced plastic ladders. The limitations imposed are for the purpose of providing adequate general requirements and testing methods needed for consistency.

2. General

2.1 Rationale

A rationale has been developed covering the specifications and performance requirements of this standard.[1]

2.2 Application

This standard is intended for voluntary use by establishments that use, manufacture or evaluate ladders. It is also designed to serve as a guide to federal and state authorities or other regulatory bodies in the formulation of laws or regulations.

The methods employed to ensure compliance with this Standard shall be determined by the proper regulatory or administrative authority.

[1]The rationale is on file with the Secretariat. American Ladder Institute, 401 N. Michigan Avenue, Chicago, IL. 60611.

ANSI - ASC A14.7-2006

American National Standard for Mobile Ladder Stands and Mobile Ladder Stand Platforms

American National Standards

ANSI - ASC A14.7-2006
Revision of ANSI A14.7 2000

American National Standard for Mobile Ladder Stands and Mobile Ladder Stand Platforms

Secretariat
American Ladder Institute

Approved February 16, 2006
American National Standards Institute, Inc.

For information on possible errata sheets and other ANSI - ASC A14 Standards please refer to the ALI website located at:
www.americanladderinstitute.org

American National Standard

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Foreword

(This forward is not a part of American National Standard A14.7-2006.)

This standard is a revision of American National Standard A14.7-2000. It is one of a series of many standards prepared under the supervision of the accredited American National Standards Committee on Safety in the Construction, Care, and Use of Ladders, A14.

Prior to the initial publishing of A14.7- 1991, the product types covered by this standard were found in A92.1. Other products found in A92.1, such as manually propelled scaffolds (towers), are now under the jurisdiction of A10.8.

One very important distinction to be made about the products identified in this standard is that these products are primarily used in the workplace, generally purchased to perform a specific task, and quite often remain in the same work area throughout their useful life. They are not intended to be broken down and rebuilt once initially constructed.

The majority of changes in the current revision are administrative in nature to provide additional clarity and direction to manufacturers and users. Additions include a handrail/guardrail test, new definitions, and an expanded labeling/marking section.

The requirements of this standard shall become effective on the date the revised A14.7 standard is approved by ANSI.

Rationales have been developed and are in the possession of the administrative secretariat, the American Ladder Institute, regarding the thought processes and decisions involved in the development of the A14.7 standard.

Suggestions for improvement of this standard will be welcome. They should be sent to the American Ladder Institute, 401 North Michigan Avenue, Chicago, Illinois 60611.

This standard was processed and approved for submittal to ANSI by the accredited American National Standards Committee on Safety in the Construction, Care, and Use of Ladders, A14. Committee approval of the standard does not necessarily imply that all the committee members voted for its approval. At the time it approved this standard the A14 Committee had the following members:

Erick Knox, Chairman
Don Gibson, Vice Chair
Ron Pietrzak, Administrative Secretariat

Organization Represented	**Name of Representative**
Alliance of American Insurers	Keith D. Lessner
The Aluminum Association	Peter Pollack
American Insurance Association	George Earhart
	Thomas Murray (Alt)
American Ladder Institute	Tom Greco

American Society of Safety Engineers . . . . . Keith Vidal
Thomas F. Bresnahan (Alt 1)
Jim Smith (Alt 2)
Associated General Contractors of America . . . . . Charlie Bird
John O'Donovan (Alt)
Canadian Standards Association . . . . . Walter Dick
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International Brotherhood of Painters and Allied Trades . . . . . Dan Penski
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International Union of Bricklayers & Allied Craftsmen . . . . . Anthony Kassman
Metal Ladder Manufacturers Association . . . . . Dave Plotner
Dale King (Alt)
National Fire Protection Association . . . . . Samuel C. Cramer
Ronald Bennett (Alt)
National Frame Builders Association . . . . . Stan Virkler
Precision Ladders. . . . . Don McKinney
Steve Richey (Alt)
Safe-Step . . . . . Chris Prentice
Paul Junius (Alt)
Scaffold Industry Association. . . . . Linda Tweten
Alan Kline (Alt)
Steel Plate Fabricators Association . . . . . Wallace Melvin
Gary Wildman (Alt)
Underwriter's Laboratories . . . . . Edgar Wolff-Klammer
U.S. Consumer Product Safety Commission . . . . . Thomas Caton*
Nicholas Marchica* (Alt)
U.S. Department of the Army, Corps of Engineers . . . . . vacant
U.S. Department of Labor OSHA. . . . . Virginia Fitzner
Robert Bell (Alt)
ANSI Z133.1 Committee . . . . . vacant (Alt 2)
Independent Specialists. . . . . Donald Bloswick
John E. Johnson
George H. Kyanka
Irving Ojalvo
Steven Cramer

*non-voting advisory member

Subcommittee A14.7 Mobile Ladder Stands and Mobile Ladder Stand Platforms, which developed this standard, had the following members:

Martin Silverman, Chairman	William F. Frame	Alan Kline	William G. Switalski
Ronald Bennett	Don Gibson	Erick Knox	Jim Tomaseski
Thomas Bresnahan	Tony Huffine	Daniel Penski	Mike Van Bree
Richard Feldmiller	Jim Kerr	Eric Pucek	David Young

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Appendices

American National Standard for Mobile Ladder Stands and Mobile Ladder Stand Platforms

Introduction

This standard is one of a series formulated under the general auspices of the American National Standards Institute with the American Ladder Institute as administrative secretariat.

The development and increasing use of a variety of mobile ladder stands and mobile ladder stand platforms necessitates establishment of performance specifications for design and manufacture.

This standard sets forth requirements that must be considered and built into the devices to provide for proper operation.

1. Scope and Purpose

1.1 Scope

This standard prescribes rules and requirements governing the proper design, construction, testing, care, use, and maintenance of mobile ladder stands and mobile ladder stand platforms including labeling /marking of these units.

It excludes special purpose units that do not meet the general requirements of this standard.

1.2 Purpose

This standard establishes requirements to be met for the design, construction, testing, care, maintenance and use of mobile ladder stands and mobile ladder stand platforms.

In order for users to develop effective operating procedures, this standard may also serve as a basis for instructing and training personnel in proper equipment use.

It is not the purpose of this standard to specify all the details of construction of mobile ladder stands and mobile ladder stand platforms. The limitations imposed are for the purpose of providing adequate general requirements and test methods.

1.3 Exceptions

This standard does not include the products (scaffolds and aerial lifts) covered by:

ANSI A10.8-2001, Construction and Demolition Operations — Scaffolding- Safety Requirements.

ANSI / SIA A92.2-2001, Vehicle Mounted Elevating and Rotating Aerial Devices.

ANSI / SIA A92.3-1990, Manually Propelled Elevating Work Platforms.

ANSI / SIA A92.5-1992, Boom-Supported Elevating Work Platforms.

ANSI / SIA A92.6-1999, Self-Propelled Elevating Work Platforms.

ANSI / SIA A92.7-1990 (R1998), Airline Ground Support Vehicle-Mounted Vertical Lift Devices.

ANSI / SIA A92.8-1993 (R1998), Vehicle-Mounted Bridge Inspection and Maintenance Devices.

ANSI / SIA A92.9-1993, Mast-Climbing Work Platforms.

2. General

2.1 Application

This standard is intended for voluntary use by establishments that use, manufacture, or purchase mobile ladder stands and/or mobile ladder stand platforms by providing a set of performance and dimensional requirements against which products may be evaluated.

This standard may also serve as a guide to federal and state authorities or other regulatory bodies in the formulation of laws or regulations.

ANSI-ASC A14.9-2010
Revision of A14.9-2004

American National Standard Safety Requirements for Disappearing Attic Stairways

American National Standards

ANSI-ASC® A14.9-2010
Revision of ANSI A14.9-2004

American National Standard Safety Requirements for Disappearing Attic Stairways

Secretariat
American Ladder Institute

Approved April 30, 2010
American National Standards Institute, Inc.

For information on possible errata sheets and other ANSI-ASC A14 Standards please refer to the ALI website located at:
www.americanladderinstitute.org

American National Standard

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Foreword

(This Foreword is not a part of the American National Standard A14.9 – 2010.)

This standard is the revised version of the American National Standard Safety Requirements for Disappearing Attic Stairways (formerly Ceiling Mounted Disappearing Climbing Systems, ANSI A14.9-2004). It is one of a series of seven standards prepared under the supervision of the American National Standards Institute. The other safety standards include: A14.1 Portable Wood Ladders; 14.2 Metal Ladders; A14.3 Fixed Ladders; 14.4 Job-Made Ladders; A14.5 Portable Reinforced Plastic Ladders and A14.7 Mobile Ladder Stands and Mobile Ladder Stand Platforms.

All seven standards derive from the original American National Standard Safety Code for Construction, Care and Use of Ladders, A14, which was first approved in 1923. Revisions were approved over the years as required.

Subcommittee A14.9 was created for the purpose of developing rules to govern the safe design, construction, testing, care and use of permanently installed folding or collapsible fixed aluminum or wood attic ladders of various types. All parts and appurtenances necessary for safe and efficient attic ladders shall be considered integral parts of the design. The A14.9 standard was submitted to the ASC A14 Committee for review in November of 2009 and approved on April 30, 2010.

This standard does not apply where training, supervision or established safety procedures are in conflict with or serve in lieu of this standard.

Suggestions for improvement of this standard will be welcome. They should be sent to the ASC A14 Committee c/o the American Ladder Institute at 401 N. Michigan Avenue, Suite 2200, Chicago, IL 60611. All comments must be sent on the Official Comment Form that can be found on the last page of this document. Each comment must include a rationale.

This standard was processed and approved for submittal to ANSI by American National Standards Committee on the safety requirements for Disappearing Attic Stairways, ASC A14.9. Committee approval of the standard does not necessarily imply that all the committee members voted for its approval. At the time it approved this standard, the ASC A14 Committee had the following members:

Erick Knox, Chairman
Don Gibson, Vice Chair
Janet Rapp, Secretariat

Organization Represented	Name of Representative
American Insurance Association	George Earhart
	Thomas Murray (Alt)
American Ladder Institute	Marc McConnell
American Society of Safety Engineers	Michael Lorenzo
Associated General Contractors of America	Charles Bird
	Michele Myers (Alt)
Canadian Standards Association	Walter Dick
Cosco Home and Office Products	Eric Kruse
	Terry Emerson (Alt)
Disappearing Attic Stairway Association	Dennis Williams
	Brad Hudspeth (Alt)
Illinois Association of Building Maintenance Contractors	Carl Pedersen
	James Weil (Alt)
International Brotherhood of Electrical Workers	James Tomaseski
International Brotherhood of Painters and Allied Trades	Brian Gustine
International Union of Bricklayers & Allied Craftsmen	Henry Kramer
	Mike Kassman (Alt)
Metal Ladder Manufacturers Association	Dave Plotner
	Dale King (Alt)
National Fire Protection Association	Samuel C. Cramer
	Ronald Bennett (Alt)
National Frame Builders Association	Stan Virkler
Precision Ladders	Don McKinney
	Steve Richey (Alt)
Risk Retention Services	Paul B. Junius
	Robert G. Stuligross (Alt)
Scaffold Industry Association	Alan Kline (Alt)
Steel Plate Fabricators Association	Wallace Melvin
U.S. Consumer Product Safety Commission	Thomas Caton*
	Mark E. Kumagai* (Alt)
U.S. Dept. of Labor OSHA	Virginia Fitzner*
	Robert Bell* (Alt)
Independent Specialists	Donald Bloswick
	John E. Johnson
	George H. Kyanka
	Irving Ojalvo
	Steven Cramer

*non-voting advisory member

Subcommittee A14.9 Disappearing Attic Stairways, which developed this standard, consisted of the following members:

Jon Ver Halen, Chairman

Roger Ball
Tom Broderick
Andy Davis
Edwin Davis
Brad Hudspeth
Tony Huffine
Dale King
George Kyanka
Don McKinney
Michael Van Bree
Dennis Williams
Thomas Yeaglin

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American National Standard Safety Requirements for Disappearing Attic Stairways

1. Scope and Purpose

1.1 Scope

This standard prescribes rules concerning the safe design, construction, testing, care, installation and use of permanently installed metal or wood, disappearing attic stairways of various types designed to be used for access to upper levels such as attics. Household units with duty ratings of 250, 300 and 350 lbs., or commercial units with a rating of 500 lbs. are the only units covered in this standard. This standard is not intended to apply to any attic stairway covered in any other ANSI A14 standards, or disappearing attic stairways intended for use with ceiling heights in excess of 12 feet. This standard also prescribes rules and minimum requirements for installation instructions and labeling of disappearing attic stairways in order to promote safety under normal conditions of usage.

This standard is not intended to cover requirements for fire separation that may be required by various building codes. It does not apply where training, supervision, or established safety procedures are in conflict with, or serve in lieu of, this standard.

1.2 Purpose

The purpose of this document is to help provide safety for life, limb, and property by establishing standards for the design and installation of permanently installed disappearing attic stairways.

It is not the purpose of this standard to specify all the details of construction of disappearing attic stairways. The limitations imposed are for the purpose of providing adequate general methods and testing.

2. General

2.1 Application

This standard is intended for voluntary use by establishments that manufacture disappearing attic stairways. It is also designed to serve as a guide to federal and state authorities or other regulatory bodies in the formulation of laws or regulations.

2.2 Interpretation

To secure uniform application of this standard, suggestions involving changes in the standards or disputes over its interpretation shall be referred to the following organization:

AMERICAN LADDER INSTITUTE
401 NORTH MICHIGAN AVENUE
SUITE 2200
CHICAGO, ILLINOIS 60611

In view of the different styles of disappearing attic stairways and the different circumstances under which they may be installed, this standard should be liberally construed.

2.3 Mandatory and Advisory Provisions

The word "shall" is to be understood as denoting a mandatory requirement. The word "should" is to be understood as denoting a recommendation.

2.4 Equivalent

The word "equivalent" in this standard means a construction, connection, or material providing equal performance.

2.5 Effective Date

This standard shall become effective 180 days after publication and shall apply only to products manufactured after the effective date.