(Revision of ASME QEI-1-2013)

## Standard for the Qualification of Elevator Inspectors

AN AMERICAN NATIONAL STANDARD



ASME QEI-1-2018 (Revision of ASME QEI-1-2013)

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#### **CONTENTS**

Foreword		iv			
Committee Ro	oster	V			
Preface		xiv			
Summary of C	Changes	xv			
Part 1	Introduction	1			
Section 1.1	Scope	1			
Section 1.2	1.2 Definitions				
Section 1.3	tion 1.3 QEI Referenced Standards				
Section 1.4	Accredited Certifying Organization Reference Standards	3			
Section 1.5					
Section 1.6					
Part 2	Qualifications and Duties of Inspectors	5			
Section 2.1	Qualifications	5			
Section 2.2	Duties	6			
Section 2.3	Maintenance of Qualification	$\epsilon$			
Part 3					
Section 3.1	Qualifications	8			
Section 3.2	Duties	8			
Section 3.3	Maintenance of Qualification	8			
Part 4					
Section 4.1	Code of Ethics (Conduct)	10			
Section 4.2	Public Disclosure of Inspectors' and Inspector Supervisors' Identities				
Nonmandato	ry Appendices				
A	Related Documents	11			
В	Recommended Qualifications and Duties of Inspector Trainees	13			
C	Sample Certification Card				
D	Model Language for Enforcement Authorities to Recognize Certified Inspectors and Inspector Supervisors From Accredited Certifying Organizations				
E	Exemplar Code of Ethics (Conduct)	16			
F	(Name of Accredited Certifying Organization) Criteria for Interpretation of the Code of Ethics (Conduct)				
G	Exemplar Policy on Conflicts of Interest	20			
Figure					
C-1	Sample Certification Card	14			

#### **FOREWORD**

Participants from the National Association of Elevator Safety Authorities, the National Elevator Industries, Inc., the American Insurance Association, and the Alliance of American Insurers met in early 1981 to discuss the trend among state and municipal governments to rely on private inspection agencies and self-inspection by elevator companies to perform inspections that had traditionally been done by the jurisdictional authorities. One of the prime concerns of the group was to develop a means for ensuring that the quality of the inspections remained at a high level. The group determined that addressing the qualifications of the persons performing the inspections is an important part of achieving this goal.

The American Society of Mechanical Engineers (ASME), which had been actively involved in elevator safety through the sponsorship of the A17 Elevator and Escalator Committee, was asked to participate in the group's discussions. ASME expressed an interest in this project and established an ad hoc committee consisting of members of the above organizations to develop a scope and guidelines for the establishment of a standards-writing committee.

On November 12, 1981, the ASME Council on Codes and Standards responded to this request and approved the formation of the ASME Committee on the Qualification of Elevator Inspectors (QEI Committee) to develop an American National Standard.

The goal established for the QEI Committee is to provide for the public health, safety, and welfare by supplementing existing standards in this field. ASME A17.1, Safety Code for Elevators and Escalators, covers design, construction, operation, inspection, testing, maintenance, alteration, and repair. ASME A17.2, Guide for Inspection of Elevators, Escalators, and Moving Walks, supplements the Safety Code by providing guidelines for the inspection and testing of the equipment. Neither ASME A17.1 nor ASME A17.2, however, covers the qualifications of inspection personnel, and the duties of the inspector are only covered briefly in the Introduction to the Inspectors' Manual.

The excellent safety record of elevators, escalators, and related equipment has been maintained, in part, by quality field inspections and tests. However, advancing technology and safety requirements have highlighted the need for establishing uniform criteria for the persons performing these inspections. The quality of inspections, of course, depends on the competence of the inspector, and the Standard for the Qualification of Elevator Inspectors is dedicated to that purpose.

Safety codes and standards are intended to enhance public health and safety. Revisions result from committee consideration of factors such as technological advances, new data, and changing environmental and industry needs. Revisions do not imply that previous editions were inadequate.

With the harmonization of ASME A17.1 and CSA B44, the application of ASME QEI-1 is now widespread in Canada. To enable the effective use of ASME QEI-1 by the jurisdictions in Canada enforcing codes other than those published by ASME, the 2007 edition of ASME QEI-1 was revised to include reference to equivalent Canadian codes. The reference to any Canadian standard and access to or possession of those standards is necessary only in Canada or where Canadian standards are adopted or enforced.

The 2013 edition of ASME QEI-1 was revised to reflect a decision made by ASME to discontinue its QEI accreditation program. Effective January 1, 2014, accreditation of organizations that certify elevator inspectors and inspector supervisors was discontinued by ASME; therefore, requirements were revised in this area to allow for accreditation to be done by other organizations.

The 2018 edition of ASME QEI-1 updates the references to include ASME A17.6 and clarifies definitions. This revision of ASME QEI-1 was approved by the American National Standards Institute on June 29, 2018.

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**PURPOSE** This Standard is intended for the purpose of establishing uniform criteria, which will aid in

- (a) qualifying and training of inspection personnel for government agencies, insurance companies, elevator companies, building owners, and managers
- (b) providing guidance for accredited certifying organizations

It is also intended to serve as a guideline on which certification is based by detailing the expertise necessary in performing inspections.

It is recommended that state, municipal, and other jurisdictional authorities reference this Standard in their governing regulations covering subjects included in this Standard. Model language for enforcement authorities to recognize certified inspectors and inspector supervisors from accredited certifying organizations is shown in Nonmandatory Appendix D.

**FORM AND ARRANGEMENT** The Foreword, Preface, and Appendices are included in this Standard for information only. They have been approved by the ASME A17 Standards Committee. The requirements therein are nonmandatory.

**RELATED PUBLICATIONS** This Standard is one of the numerous codes and standards that have been developed and published by The American Society of Mechanical Engineers (ASME). These and publications from other organizations, all of which may be of special interest to users of this Standard, are listed in Nonmandatory Appendix A.

**CORRESPONDENCE WITH THE A17 STANDARDS COMMITTEE** ASME codes and standards are developed and maintained with the intent to represent the consensus of concerned interests. As such, users of this Standard may interact with the Committee by requesting interpretations, proposing revisions, and attending Committee meetings. Correspondence should be addressed to

Secretary, A17 Standards Committee The American Society of Mechanical Engineers Two Park Avenue New York, NY 10016-5990

**Proposing Revisions.** Revisions are made periodically to the Standard to incorporate changes that appear necessary or desirable as demonstrated by the experience gained from its application and in order to conform to

developments in the elevator field. Approved revisions will be published in the next edition.

The Committee welcomes proposals for revisions to this Standard. Such proposals should be as specific as possible, citing the paragraph number(s), the proposed wording, and a detailed description of the reasons for the proposal, including any pertinent documentation.

**Requesting Interpretations.** Upon request, the A17 Standards Committee will render an interpretation of any requirement of the Standard. Interpretations can only be rendered in response to a written request sent to the Secretary of the A17 Standards Committee.

Requests for interpretation should preferably be submitted through the online Interpretation Submittal Form. The form is accessible at http://go.asme.org/InterpretationRequest. Upon submittal of the form, the Inquirer will receive an automatic e-mail confirming receipt.

If the Inquirer is unable to use the online form, he/she may mail the request to the above address. The request for an interpretation should be clear and unambiguous. It is further recommended that the Inquirer submit his/her request in the following format:

Subject: Cite the applicable paragraph number(s)

and the topic of the inquiry in one or two

words.

Edition: Cite the applicable edition of the Standard

for which the interpretation is being

requested.

Question: Phrase the question as a request for an

interpretation of a specific requirement suitable for general understanding and use, not as a request for an approval of a proprietary design or situation. Please provide a condensed and precise question, composed in such a way that a

"yes" or "no" reply is acceptable.

Proposed Reply(ies):

Provide a proposed reply(ies) in the form of "Yes" or "No," with explanation as needed. If entering replies to more than one question, please number the

questions and replies.

Background Information:

Provide the Committee with any background information that will assist the

Committee in understanding the inquiry. The Inquirer may also include any plans or drawings that are necessary to explain the question; however, they should not contain proprietary names or

information.

Requests that are not in the format described above may be rewritten in the appropriate format by the Committee prior to being answered, which may inadvertently change the intent of the original request.

Moreover, ASME does not act as a consultant for specific engineering problems or for the general application or understanding of the Standard requirements. If, based on the inquiry information submitted, it is the opinion of the Committee that the Inquirer should seek assistance, the inquiry will be returned with the recommendation that such assistance be obtained.

ASME procedures provide for reconsideration of any interpretation when or if additional information that might affect an interpretation is available. Further,

persons aggrieved by an interpretation may appeal to the cognizant ASME Committee or Subcommittee. ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

Attending Committee Meetings. The A17 Standards Committee and the various Working Committees regularly hold meetings and/or telephone conferences, all of which are open to the public. Persons wishing to attend any meeting and/or telephone conference should contact the Secretary of the A17 Standards Committee.

## **ASME QEI-1-2018 SUMMARY OF CHANGES**

Following approval by the ASME QEI Committee and ASME, and after public review, ASME QEI-1–2018 was approved by the American National Standards Institute on June 29, 2018.

ASME QEI-1-2018 includes the following changes identified by a margin note, (18).

Page	Location	Change
xiv	Preface	Revised
1	Section 1.2	(1) Definition for effective date added
		(2) Term inspection supervisor revised to inspector supervisor, definition revised, and term revised throughout
2	Section 1.3	Subparagraph (j) revised
3	1.5.2	(1) Introductory text editorially added
		(2) Subparagraph (f) added
5	Section 2.1	Subparagraph (a) revised
6	Section 2.2	Subparagraph (c)(2) revised
11	Nonmandatory Appendix A	Introductory paragraph designated A-1 and other paragraphs redesignated
12	A-12	(1) Addresses of ASME, ASSP (formerly ASSE), BOCA, and Elevator World revised
		(2) Address of ATBCB deleted
		(3) Addresses of CSA and U.S. Access Board added
14	Figure C-1	Designation and caption added
16	E-2.2	Paragraphs E-2.3 and E-2.4 editorially redesignated as E-2.2.1 and E-2.2.2, respectively

#### Part 1 Introduction

#### SECTION 1.1 SCOPE

#### 1.1.1 Inspectors and Inspector Supervisors

This Standard includes requirements for the qualification, duties, and responsibilities of inspectors and inspector supervisors engaged in the inspection and testing of

- (a) hoisting and lowering mechanisms, equipped with a car or platform, that move between two or more landings. This equipment includes, but is not limited to, the following:
- (1) elevators (ASME A17.1/CSA B44) and, in Canadian jurisdictions, special-purpose personnel elevators (CSA B311)
- (2) platform and stairway chairlifts (ASME A18.1 or CSA B355)
- (b) power-driven stairways and walkways for carrying persons between landings. This equipment includes, but is not limited to, the following:
  - (1) escalators (ASME A17.1/CSA B44)
  - (2) moving walks (ASME A17.1/CSA B44)
- (c) hoisting and lowering mechanisms equipped with a car that serves two or more landings and is restricted to the carrying of material by its limited size or limited access to the car. This equipment includes, but is not limited to, the following:
  - (1) dumbwaiters (ASME A17.1/CSA B44)
- (2) material lifts and dumbwaiters with automatic transfer devices (ASME A17.1/CSA B44)
- (d) hoists and elevators (ANSI/ASSE A10.4 or CSA Z185) that are
  - (1) not an integral part of buildings
- (2) installed inside or outside buildings or structures during construction, alteration, or demolition operations
- (3) used to raise and lower workers and other personnel connected with or related to the structure

NOTE: Nonmandatory Appendix B also includes recommended qualifications and duties of inspector trainees.

#### 1.1.2 Certification and Accreditation

Inspectors and inspector supervisors shall be certified in accordance with the requirements of this Standard. The organization that certifies the inspectors and inspector supervisors shall be accredited by an independent internationally or nationally recognized organization that accredits personnel certification bodies to ANSI/ISO/IEC 17024, or its equivalent.

#### 1.1.3 Covered Inspections

This Standard applies to any person who is making an inspection to determine compliance with the requirements of ASME A17.1/CSA B44, ASME A17.3, CSA B44.1/ASME A17.5, ASME A18.1 or CSA B355, and ANSI/ASSE A10.4 or CSA Z185. It applies to persons typically employed by, but is not limited to, the following:

- (a) jurisdictional authorities
- (b) independent inspection agencies and elevator consultants
  - (c) insurers of the equipment
- (d) manufacturers, installers, and maintainers of the equipment
  - (e) building owners and managers
- (f) testing laboratories performing field inspections and tests (see also para. 1.1.4)

#### 1.1.4 Exempt Inspections

This Standard does not cover personnel engaged in engineering and type testing as covered in Section 8.3 of ASME A17.1/CSA B44, Section 8 of ASME A18.1 or Appendix A of CSA B355, and CSA B44.1/ASME A17.5, including inspection by laboratories in association with these tests.

#### SECTION 1.2 DEFINITIONS (18)

Terms used in this Standard shall have the meanings specified in the following definitions. Other terms used shall have the meanings specified in Section 1.3 of ASME A17.1/CSA B44 and Section 3 of ANSI/ASSE A10.4 or CSA Z185.

accredited certifying organization: a certifying organization that holds valid documentation of accreditation issued by an independent internationally or nationally recognized accrediting organization that accredits personnel certification bodies.

NOTE: A Certificate of Accreditation is an example of such documentation.