

Conformity Assessment Requirements

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Mechanical Engineers

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**The American Society of
Mechanical Engineers**

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CONTENTS

Foreword	iv
Committee Roster	v
Statement of Policy on the Use of the ASME Certification Mark in Advertising	vi
1 Introduction	1
2 Certification Process.....	1
3 Designated Oversight.....	4
4 Data Reports.....	4
5 ASME Certification Mark	4
6 Accreditation of Testing Laboratories and Acceptance of Authorized Observers.....	5
Table	
1-1 ASME Boiler and Pressure Vessel Certification Programs	2

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FOREWORD

In February 2009, the ASME Board on Conformity Assessment (BCA) formed the Committee on Conformity Assessment Requirements. The mission of this committee was to develop a separate standard that includes the necessary ASME conformity assessment requirements currently contained in various ASME Codes and Standards. This Standard is a result of that mission.

The 2013 edition of ASME CA-1 is intended to replace the ASME conformity assessment requirements contained in Sections I; IV; VIII, Divisions 1, 2, and 3; X; and XII of the ASME Boiler and Pressure Vessel Code. It is expected that the conformity assessment requirements will be deleted from those Sections and that a reference to this Standard will be added.

Future editions will address the ASME conformity assessment requirements contained in Section III of the ASME Boiler and Pressure Vessel Code; ASME RTP-1, Reinforced Thermoset Plastic Corrosion-Resistant Equipment; ASME BPE, Bioprocessing Equipment, as well as any new product certification standards that are developed.

These requirements were developed and are maintained by the ASME Committee on Conformity Assessment Requirements that reports to the ASME Board on Conformity Assessment. The Committee operates under the procedures accredited by the American National Standards Institute.

Suggestions for improvement of this Standard are welcome. They should be sent to The American Society of Mechanical Engineers; Attn: Secretary, Conformity Assessment Requirements Committee; Two Park Avenue; New York, NY 10016-5990.

COMMITTEE ON CONFORMITY ASSESSMENT REQUIREMENTS

(The following is the roster of the Committee as of May 2012.)

STANDARDS COMMITTEE OFFICERS

P. D. Edwards, *Chair*
R. E. McLaughlin, *Vice Chair*
K. I. Baron, *Secretary*

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STATEMENT OF POLICY ON THE USE OF THE ASME CERTIFICATION MARK IN ADVERTISING

ASME has established procedures to authorize qualified organizations to perform various activities in accordance with the requirements of the ASME Boiler and Pressure Vessel Code. It is the aim of the Society to provide recognition of organizations so authorized. An organization holding authorization to perform various activities in accordance with the requirements of the Code may state this capability in its advertising literature.

Organizations that are authorized to use the Certification Mark for marking items or constructions that have been constructed and inspected in compliance with the ASME Boiler and Pressure Vessel Code are issued Certificates of Authorization. It is the aim of the Society to maintain the standing of the Certification Mark for the benefit of the users, the enforcement jurisdictions, and the holders of the Certification Mark who comply with all requirements.

Based on these objectives, the following policy has been established on the usage in advertising of facsimiles of the Certification Mark, Certificates of Authorization, and reference to Code construction. The American Society of Mechanical Engineers does not “approve,” “certify,” “rate,” or “endorse” any item, construction, or activity and there shall be no statements or implications that might so indicate. An organization holding the Certification Mark and/or a Certificate of Authorization may state in advertising literature that items, constructions, or activities “are built (produced or performed) or activities conducted in accordance with the requirements of the ASME Boiler and Pressure Vessel Code,” or “meet the requirements of the ASME Boiler and Pressure Vessel Code.” An ASME corporate logo shall not be used by any organization other than ASME.

The Certification Mark shall be used only for stamping and nameplates as specifically provided in the Code. However, facsimiles may be used for the purpose of fostering the use of such construction. Such usage may be by an association or a society, or by a holder of the Certification Mark who may also use the facsimile in advertising to show that clearly specified items will carry the Certification Mark. General usage is permitted only when all of the manufacturer’s items are constructed under the rules.

CONFORMITY ASSESSMENT REQUIREMENTS

1 INTRODUCTION

1.1 Scope

This Standard specifies the requirements for certification and accreditation of organizations supplying products and/or services that are intended to conform to the requirements of ASME Standards listed in Table 1-1.

1.2 Definitions

Applicant: a company applying for ASME certification or accreditation.

ASME Designated Organization: an entity appointed by ASME to perform an administrative activity in accordance with an applicable Code or Standard.

ASME Designee: an individual authorized by ASME to perform administrative functions on its behalf.

audit: a documented evaluation performed to verify, by examination of objective evidence, that those selected elements of a previously approved Quality Program have been developed, documented, and implemented in accordance with specific requirements. An audit does not include surveillance or inspection for the purpose of process control, or acceptance of material or items.

Authorized Inspection Agency: an organization accredited by ASME in accordance with ASME QAI-1.

Enforcement Authority: a government entity that enforces regulations or laws and that formally recognizes an ASME Code or Standard as a means of compliance with those regulations or laws.

governing standard: the code or standard that establishes the technical conformance requirements for the product and/or service to be certified.

organization: a legal entity that holds, or has applied for, ASME accreditation or certification.

Quality Program: the term is intended to mean quality assurance or quality control depending on the requirements of the applicable Code or Standard.

review: evaluation of a manufacturer's quality control system, including a demonstration of compliance with Code requirements covered by the scope of the Certificate(s) being applied for, including as applicable, design, material, fabrication, examination, testing, inspection, and certification.

survey: documented evaluation of an organization's ability to perform its Code activities as verified by a determination of the adequacy of the organization's Quality Program and by review of the implementation of that program at the location of the work.

team leader: an ASME Designee who is also the member of the team, who has complete responsibility for the conduct of the survey, review, audit, investigation, or interview.

2 CERTIFICATION PROCESS

2.1 Application

2.1.1 Any organization desiring a Certificate of Authorization shall apply to ASME. The application and related forms and information may be obtained from the ASME Conformity Assessment department (www.asme.org).

2.1.2 An application for each facility shall be submitted when an organization plans to fabricate products conforming to the requirements of ASME Codes and Standards, listed in Table 1-1, at more than one location.

2.1.3 The organization shall agree that each Certificate of Authorization and each ASME Certification Mark are, and remain at all times, the property of ASME, that they will be used only in accordance with the governing standard, and will be promptly returned to ASME upon request, or when the Applicant discontinues the Code or Standard activities covered by this Certificate, or when the Certificate of Authorization has expired and a new Certificate has not been issued.

2.2 Quality Program

2.2.1 Any organization holding or applying for a Certificate of Authorization shall demonstrate a Quality Program that establishes that all requirements of the governing standard will be met. The Quality Program shall be in accordance with the governing standard specified in Table 1-1. A written description of the Quality Program that identifies the documents and procedures the organization will use to produce a product that conforms to the applicable standard shall be available for review and acceptance by the Authorized Inspection Agency and the ASME Designee.

Table 1-1 ASME Boiler and Pressure Vessel Certification Programs

ASME Certification Designator and Description	Governing Standard	Certification Period, yr	Designated Oversight	Additional Requirements
A Boiler Assembly	Section I	3	Authorized Inspection Agency	...
E Electric Boiler	Section I	3	Authorized Inspection Agency and Certified Individual	...
H Heating Boiler (except cast iron and cast aluminum)	Section IV	3	Authorized Inspection Agency	...
H Heating Boiler (cast iron and/or cast aluminum)	Section IV	1	Certified Individual	...
HLW Potable Water Heater and Storage Tanks	Section IV	3	Authorized Inspection Agency	...
HV Heating Boiler Safety Valve	Section IV	3	Certified Individual	Capacity certification test
M Miniature Boiler	Section I	3	Authorized Inspection Agency	...
PP Pressure Piping	Section I	3	Authorized Inspection Agency	...
RP Reinforced Plastic Vessel	Section X	3	Authorized Inspection Agency	...
S Power Boiler	Section I	3	Authorized Inspection Agency	...
T Transport Tank	Section XII	3	Authorized Inspection Agency, Certified Individual, or QIO	...
TD Transport Tank Rupture Disk	Section XII	3	Certified Individual	Capacity certification test
TV Transport Tank Safety Valve	Section XII	3	Certified Individual	Capacity certification test
U Pressure Vessel, Division 1	Section VIII, Division 1	3	Authorized Inspection Agency	...
U2 Pressure Vessel, Division 2	Section VIII, Division 2	3	Authorized Inspection Agency	...
U3 Pressure Vessel, Division 3	Section VIII, Division 3	3	Authorized Inspection Agency	...
UD Pressure Vessel Rupture Disk	Section VIII, Division 1	3	Certified Individual	Capacity certification test
UM Miniature Vessel	Section VIII, Division 1	1	Certified Individual	...
UV Pressure Vessel Safety Valve	Section VIII, Division 1	3	Certified Individual	Capacity certification test
UV3 Pressure Vessel Safety Valve, Division 3	Section VIII, Division 3	3	Certified Individual	Capacity certification test
V Boiler Safety Valve	Section I	3	Certified Individual	Capacity certification test

2.2.2 At any time, an organization may make changes to its Quality Program reflecting changes to its methods of achieving the results required to conform to a particular standard subject to acceptance by the Authorized Inspector, where applicable. For organizations holding Certificate(s) of Authorization for pressure relief devices, such acceptance shall be by the ASME Designated Organization.

2.3 Initial Certification Review

2.3.1 Introduction. Before the issuance or renewal of a Certificate of Authorization, the organization is subject to a review by an ASME survey team.

2.3.2 Purpose of the Review. The purpose of the review is to evaluate the Applicant's Quality Program and its implementation. The Applicant shall demonstrate sufficient administrative and fabrication functions of its Quality Program to show that the Applicant has knowledge and ability to produce the products (including services) covered by the Quality Program. Fabrication functions may be demonstrated using the current work, a mock-up, or a combination of the two. If there is current Code work in-house at the time of the survey, it shall be included as part of the demonstration item used for the certification review.

2.3.3 Capacity Certification Testing. Applicants for Certificates of Authorization requiring capacity certification testing as indicated in Table 1-1 shall demonstrate to the satisfaction of the ASME Designee that the manufacturing, production, test facilities, and quality control procedures ensure close agreement between the performance of random production samples and the performance of those devices submitted for capacity certification. Applicants shall successfully complete operational and capacity tests in accordance with the governing standard in the presence of an ASME Designee at the ASME-accepted testing laboratory.

2.3.4 Written Report of Review Results. A written report containing the results of the review shall be issued by the shop review team. This report is reviewed by ASME, which will either issue a Certificate of Authorization or notify the Applicant of deficiencies revealed during the review. If deficiencies cannot be closed during the review process, the Applicant will either be given the opportunity to correct the open deficiencies or informed that a re-review is required.

2.3.5 Code Construction Before Receipt of Certificate of Authorization. When used to demonstrate its Quality Program, an organization may start fabricating products that conform with the applicable standard before receipt of a Certificate of Authorization under the following conditions:

(a) the fabrication is done with the participation of and acceptance of the designated oversight as specified in Table 1-1.

(b) the activity shall have been performed in conformance with the Applicant's accepted Quality Program. The item is stamped with the ASME Certification Mark and certified only after the Applicant receives the ASME Certificate of Authorization.

2.4 Issuance of Certification

2.4.1 Authorization to use the Certification Mark may be granted or withheld by ASME at its discretion. If authorization is granted and the proper administrative fee paid, a Certificate of Authorization evidencing permission to use a Certification Mark will be forwarded to the Applicant. Each such Certificate will identify the Certification Mark designator to be used and the scope, including the type of shop operations, field operations, or both, when authorization is granted.

2.4.2 Certificates are valid from the date of issuance for the period shown in Table 1-1.

2.4.3 ASME may at any time revise the requirements concerning the issuance and use of the Certification Mark as it deems appropriate, and all such requirements shall become binding upon the Holders of valid Certificates.

2.5 Maintaining Certification

2.5.1 The Certificate Holder shall contact ASME regarding any changes to the address, name, location, or scope on their Certificate of Authorization.

2.5.2 For Certificate Holders with capacity certification testing required by Table 1-1, manufacturing, assembly, inspection, and test operations, including capacity, are subject to inspection at any time by an ASME Designee.

2.5.3 ASME may investigate an organization for allegations of nonconformance with Code requirements.

2.6 Renewal

Certificate Holders are responsible for applying for renewal of the certification prior to expiration at a time specified by ASME.

2.7 Suspension

ASME may suspend the certification of an organization for nonconformance with ASME requirements. Suspended organizations are not permitted to apply the ASME Certification Mark.

2.8 Withdrawal

ASME may withdraw the certification of an organization for nonconformance with ASME requirements.

2.9 Appeal

An organization may request reconsideration of adverse certification decisions by ASME.

3 DESIGNATED OVERSIGHT

Each ASME certification program that utilizes ASME marks shall provide for one (or more, where applicable) of the following types of designated oversight as specified in Table 1-1: Authorized Inspection Agency (AIA), Qualified Inspection Organization (QIO), or Certified Individual (CI).

3.1 Authorized Inspection Agency (AIA)

Authorized Inspection Agencies shall be accredited in accordance with ASME QAI-1.

3.1.1 Inspection Agreement. As a condition of obtaining and maintaining a Certificate of Authorization, the organization shall have at all times a valid and fully executed inspection contract or agreement with an ASME-accredited Authorized Inspection Agency (AIA) to provide inspection services. This inspection agreement is a written agreement between the organization and the AIA that specifies the terms and conditions under which inspection services are to be furnished and that states the mutual responsibilities of the organization and the Authorized Inspectors. A Certificate Holder shall notify ASME whenever its agreement with an AIA is canceled or changed to another AIA.

3.1.2 Use of Multiple (Secondary) AIAs. As a condition of obtaining and maintaining certain types of ASME Certificates of Authorization, the manufacturer must have in force at all times an inspection contract or agreement with an accredited AIA. This AIA (herein identified as the AIA of Record) shall be identified on the manufacturer's application for new issuance or renewal of Certificates of Authorization.

(a) The AIA of Record shall perform all required inspections at the shop location identified in the Certificate of Authorization and for the type of work listed in the scope of the ASME Certificate of Authorization.

(b) Alternatively, at the request of the purchaser, another AIA may perform inspections in the shop on its project. The AIA of Record shall perform all inspections at field site locations as authorized in the scope of the ASME Certificate of Authorization except as follows:

- (1) when the purchaser requests another AIA to perform inspections on its project
- (2) whenever the AIA of Record cannot provide coverage for inspections at a specific field site

(c) The Certificate Holder's Quality Program shall include the following provisions whenever an AIA other than the AIA of Record performs inspections as outlined in (b):

(1) how different AIAs will perform activities under the Certificate Holder's Quality Program

(2) evidence that the AIA performing the field or shop activities, or both, has a contract or agreement with the Certificate Holder

(3) evidence that this program has been accepted by the AIA of Record

(d) The provisions for the use of an AIA other than the AIA of Record are not permitted for shops operating under the mass-production provisions of the Code.

3.1.3 Authorized Inspectors (AI). Qualifications are defined in ASME QAI-1.

3.2 Certified Individual (CI)

A Certified Individual (CI) is an individual employee of the certified entity authorized by ASME to use its Certification Marks. The CI is qualified and certified by the entity authorized by ASME to use its Certification Marks, to criteria specified in the appropriate code or standard. The qualification and certification are subject to evaluation by ASME during the survey or review. The CI is neither an AI as described in para. 3.1.3 nor a Qualified Inspector (QI) as described in para. 3.3.

3.3 Qualified Inspection Organization (QIO)

An ASME Qualified Inspection Organization (QIO) is an organization that is qualified by ASME, to criteria specified in the appropriate code or standard, to provide designated oversight through the use of Qualified Inspectors (QI); is not an Authorized Inspection Agency (AIA) as described in para. 3.1; and is not an entity authorized by ASME to use its Certification Mark.

4 DATA REPORTS

Data reports shall be as specified in the governing standard.

5 ASME CERTIFICATION MARK

5.1 Application

The ASME Certification Mark, in conjunction with the certification designator, shall be applied by the certified organization only with the approval of the Authorized Inspector or Certified Individual, as applicable, and after all inspections and testing required by the governing standard and quality management system have been satisfactorily completed. Such application of the ASME Certification Mark, together with final certification in accordance with the requirements of the governing standard, shall confirm that all applicable requirements have been satisfied.