ASME B31Q-2025
(Revision of ASME B31Q-2021)

Pipeline Personnel Qualification

ASME Code for Pressure Piping, B31

AN INTERNATIONAL PIPING CODE®

The American Society of Mechanical Engineers

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The American Society of Mechanical Engineers
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The next edition of this Standard is scheduled for publication in 2027. This Standard will become effective 6 months after the Date of Issuance.

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CONTENTS

FOREWORD

ASME B31Q-2025 provides requirements for the qualification of pipeline personnel. The implementation of this Standard is intended to minimize the impact on safety and integrity of the pipeline due to human error that may result from an individual's lack of knowledge, skills, or abilities during the performance of certain activities.

This Standard does not impose a requirement to perform specific tasks that affect the safety or integrity of the pipeline. It does, however, set the requirements for qualification of individuals if these types of tasks are performed.

This Standard establishes the requirements for identifying covered tasks that impact the safety or integrity of pipelines, properly qualifying individuals to perform these tasks, and managing the qualifications of pipeline personnel. Design and engineering tasks are excluded because appropriately educated or experienced individuals perform these tasks using guidelines and procedures that ensure the quality of their work. In addition, the quality of the work is generally confirmed procedurally through review and ultimately by field inspection and testing of the design required by the applicable ASME Standard (ASME B31.4 and ASME B31.8 for hazardous liquid pipelines and gas transmission and distribution pipelines, respectively) and jurisdictional authority. Design and engineering tasks involving analysis and integration of data associated with integrity management are excluded from this Standard.

Numerous entities have previously developed and implemented qualification programs. Therefore, as part of implementation of this Standard, the implementer should determine what changes to provisions of its existing program (e.g., span of control, subsequent qualification intervals, and evaluation methods) are required to meet this Standard. An individual qualified to perform a covered task under the existing program could be considered to be qualified under the program described by this Standard. Individuals currently qualified under an existing program can maintain their qualifications by meeting the subsequent qualification requirements established in this Standard. A documented performance evaluation, if not previously performed for a task that requires performance evaluation for initial qualification under this Standard, should be performed either during the implementation period or at the time of subsequent qualification.

The following is a summary of the revisions incorporated into previous editions and this edition of ASME B31Q:

(a) The 2010 edition of the Standard was a revision of the first edition, published in 2006, and included the following improvements:

(1) addition of four new tasks in the task list

(2) editorial refinements

(3) clarification on handling new technology, long-term degradation of physical abilities, qualification exemptions, and new construction

(b) The 2014 edition of the Standard enhanced the qualification standards to provide more in-depth evaluation criteria for 145 of the 165 tasks in the task list.

(c) The 2016 edition of the Standard included the following improvements:

(1) refinement of the task list, including

(-a) enhancement of the qualification standards to provide more in-depth evaluation criteria for the balance of the task list

(-b) addition of seven new tasks to the task list

(-c) removal of nine tasks specific to diving that were covered sufficiently by nondestructive testing, welding, and other land-based tasks

(-d) removal of one task that had been combined with a similar task

(2) addition of a nonmandatory appendix that provided guidance for implementing ASME B31Q and the nonmandatory task list

(3) editorial clarification and refinements, including

(-a) construction documentation clarified in the definition of documentation in the nonmandatory task list

(-b) redesignation of sections and appendices to follow ASME guidelines

(d) The 2018 edition of the Standard included the following improvements:

(1) editorial clarification and refinements, including

(-a) consistency in language used for task titles and reference to other tasks

(-b) addition of a definition of "interval" to Nonmandatory Appendix A

(-c) update of language for a few requalification intervals to match current regulatory requirements

(-d) update of example evaluation criteria in Nonmandatory Appendix D to match the enhanced task standards

(2) refinement of the task list, including

(-a) addition of Task 1020, Perform Electrical Inspection of Pipe Coating (Holiday Detection or Jeeping)

(-b) removal of an unnecessary step in Task 0091, Troubleshoot Active Cathodic Protection System

(-c) clarification of the scope of tasks where portions of the work are covered by other tasks

(-d) clarification of what is covered by Task 0801, Perform Welding

(3) replacement of Nonmandatory Appendix B with a new table of tasks sorted by category and providing the latest version status of each task

(e) The 2021 edition of the Standard included the following improvements:

(1) enhancement of para. 8.1, Evaluation Process, including

(-a) additional guidance in para. 8.1.2 regarding evaluation procedures

(-b) addition of para. 8.1.3, Evaluation Security

(2) revision of para. 9.3, Qualification Requirements for Emergency Response, including

(-a) addition of para. 9.3.1, Emergency Response Qualification

(-b) addition of para. 9.3.2, Mutual Aid

(3) editorial clarification and refinements, including

(-a) addition of para. 1.3, Units of Measure

(-b) refinements of various tasks in Nonmandatory Appendix A to address units of measure

(-c) update of language in para. 11.1, Program Effectiveness to include guidance regarding periodicity of operator qualification program effectiveness reviews

(-d) revision of title for Task 1511

(-e) addition of definitions for *mutual aid*, *emergency response provider*, and *first responder*

(f) The 2025 edition of the Standard includes the following improvements:

(1) addition of definitions of “may,” “pipe,” “shall,” and “should”

(2) addition of detail to the selection of evaluation methods

(3) addition of requirements for operators to consider necessary changes to evaluation criteria

(4) addition of requirements for when to qualify individuals

(5) addition of requirements for qualified individuals in span-of-control situations

(6) addition of Task 0637 on performing vacuum box inspection of tank welds

(7) clarification of the updates required to ensure program effectiveness

(8) revision of “pipeline” to “pipe” in several tasks

(9) revision of Table H-2-1

(10) updates of Table B-1

(11) upgrade of several activities from “permitted” to “recommended” or “required”

(12) editorial clarifications and refinements throughout

Following approval by the ASME B31 Standards Committee, ASME B31Q-2025 was approved by the American National Standards Institute on January 15, 2025.

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Code for Pressure Piping

(The following is the roster of the committee at the time of approval of this Standard.)

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Revisions and Errata. The committee processes revisions to this Standard on a continuous basis to incorporate changes that appear necessary or desirable as demonstrated by the experience gained from the application of the Standard. Approved revisions will be published in the next edition of the Standard.

In addition, the committee may post errata on the committee web page. Errata become effective on the date posted. Users can register on the committee web page to receive e-mail notifications of posted errata.

This Standard is always open for comment, and the committee welcomes proposals for revisions. Such proposals should be as specific as possible, citing the paragraph number, the proposed wording, and a detailed description of the reasons for the proposal, including any pertinent background information and supporting documentation.

Cases

(a) The most common applications for cases are

(1) to permit early implementation of a revision based on an urgent need

(2) to provide alternative requirements

(3) to allow users to gain experience with alternative or potential additional requirements prior to incorporation directly into the Standard

(4) to permit the use of a new material or process

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(1) a statement of need and background information

(2) the urgency of the case (e.g., the case concerns a project that is underway or imminent)

(3) the Standard and the paragraph, figure, or table number

(4) the editions of the Standard to which the proposed case applies

(d) A case is effective for use when the public review process has been completed and it is approved by the cognizant supervisory board. Approved cases are posted on the committee web page.

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ASME B31Q-2025
SUMMARY OF CHANGES

Following approval by the ASME B31 Standards Committee and ASME, and after public review, ASME B31Q-2025 was approved by the American National Standards Institute on January 15, 2025.

ASME B31Q-2025 includes the following changes identified by a margin note, **(25)**.

Page	*Location*	*Change*
1	2	Definitions of *may*, *pipe*, *shall*, and *should* added
4	5.3	Second sentence revised
5	5.4	(1) Title editorially revised (2) First sentence of third paragraph revised
6	Figure 5.4-1	In General Note, listing under B35 revised
5	5.5	Subparagraph (b) revised
8	6	Second sentence revised
9	8.1.1.2	Second sentence revised
10	8.2.2	Last sentence of first paragraph revised
10	8.2.3	Revised in its entirety
12	9.1.3.2	First sentence of second paragraph revised
13	9.3.1	Subparagraph (a) revised
14	9.4	Revised in its entirety
14	9.4.1	Revised in its entirety
15	9.4.2.1	First sentence revised
15	9.4.2.2	First sentence revised
15	9.4.2.3	Second sentence revised
15	9.5.3	First two sentences revised
15	9.5.4	Second sentence revised
16	10.1	Titles editorially revised
17	11.1	Subparagraph (c)(3) revised in its entirety
19	13.7.3	Revised
20	14	Updated
47	Task 0637	Added
66	Task 1131	Subparagraph (a)(6)(-a) revised
73	Task 1311	Subparagraph (a)(2)(-c)(-1) revised
80	Task 1511	Subparagraph (a)(9)(-d) revised
81	Task 1521	Subparagraphs (a)(5) and (a)(6)(-b) revised
81	Task 1531	Subparagraphs (a)(5) and (a)(6)(-c) revised
82	Task 1541	*Pipeline* revised to *pipe* in all but subparas. (a)(5)(-c) and (a)(5)(-d)
82	Task 1551	*Pipeline* revised to *pipe* in all but subparas. (a)(5)(-b) and (a)(5)(-c)
88	Nonmandatory Appendix B	Text added

Page	*Location*	*Change*
89	Table B-1	Revised
95	Nonmandatory Appendix D	Penultimate sentence revised
97	F-5	Subparagraph (e) and last paragraph revised
106	H-2	Last sentence revised
109	Table H-2-1	Revised
125	I-2(f)	Subparagraph I-2(f) revised in its entirety

PIPELINE PERSONNEL QUALIFICATION

1 INTRODUCTION

1.1 Scope

This Standard establishes the requirements for developing and implementing an effective Pipeline Personnel Qualification Program (qualification program) using a combination of technically based data, accepted industry practices, and consensus-based decisions. The Standard also offers guidance and examples of a variety of methods that may be used to meet selected requirements. The Standard specifies the requirements for identifying covered tasks that impact the safety or integrity of pipelines, for qualifying individuals to perform those tasks, and for managing the qualifications of pipeline personnel.

With the following exceptions, this Standard applies to tasks that impact the safety or integrity of pipelines:

(a) design or engineering tasks

(b) tasks that are primarily intended to ensure personnel safety

1.2 Purpose and Objectives

The purpose of this Standard is to establish requirements for the qualification and management of qualifications for pipeline personnel. The objective of this Standard is to minimize the impact on safety and integrity of the pipeline due to human error that may result from an individual's lack of knowledge, skills, or abilities during the performance of certain activities.

Individuals who perform covered tasks and those individuals responsible for ensuring a qualified workforce shall meet the applicable requirements of this Standard.

1.3 Units of Measure

This Standard states values in both U.S. Customary and International System (SI, also known as metric) units. Either set of units may be used. Local customary units may also be used to demonstrate compliance with this Standard. Within the text, the SI units are shown in parentheses or in separate tables. The values stated in each system are not exact equivalents; therefore, each system of units should be used independently of the other. It is the responsibility of the organization performing calculations to ensure that a consistent system of units is used.

When necessary to convert from one system of units to another, conversion should be made by rounding the values to the number of significant digits of implied precision in the starting value.

2 DEFINITIONS (25)

ability: the mental and physical capacity to perform a task.

abnormal operating condition (AOC): a condition that may indicate a malfunction of a component or deviation from normal operations that may

(a) indicate a condition exceeding design limits or

(b) result in one or more hazards to persons, property, or the environment

affected individual: an individual who performs one or more covered tasks or who has qualification program implementation responsibility.

covered task: a task that can affect the safety or integrity of the pipeline.

DI analysis: an analysis that explores the difficulty (D) and importance (I) of each task.

DIF analysis: an analysis that explores the difficulty (D), importance (I), and frequency of performance (F) of each task.

direct and observe: the process by which a qualified individual oversees the work activities of one or more nonqualified individuals and is able to take immediate corrective action when necessary.

distinctive physical ability: clearly defined perceptual or physical functioning required to perform a task (e.g., color vision, visual acuity, hearing, smell).

emergency response provider: governmental and nongovernmental emergency, public safety, fire, law enforcement, emergency response, emergency medical service providers and related authorities, agencies, agency volunteers, and personnel.

entity: any individual or organization using any portion of this Standard to develop or implement a qualification program or portion thereof, including pipeline operators, contractors, subcontractors, service providers, etc.

evaluation: a process established to determine an individual's ability to perform a covered task. The term can be used to refer to the process or the instruments or both. The process may entail one or more evaluation methods or one or more distinct evaluation instruments.