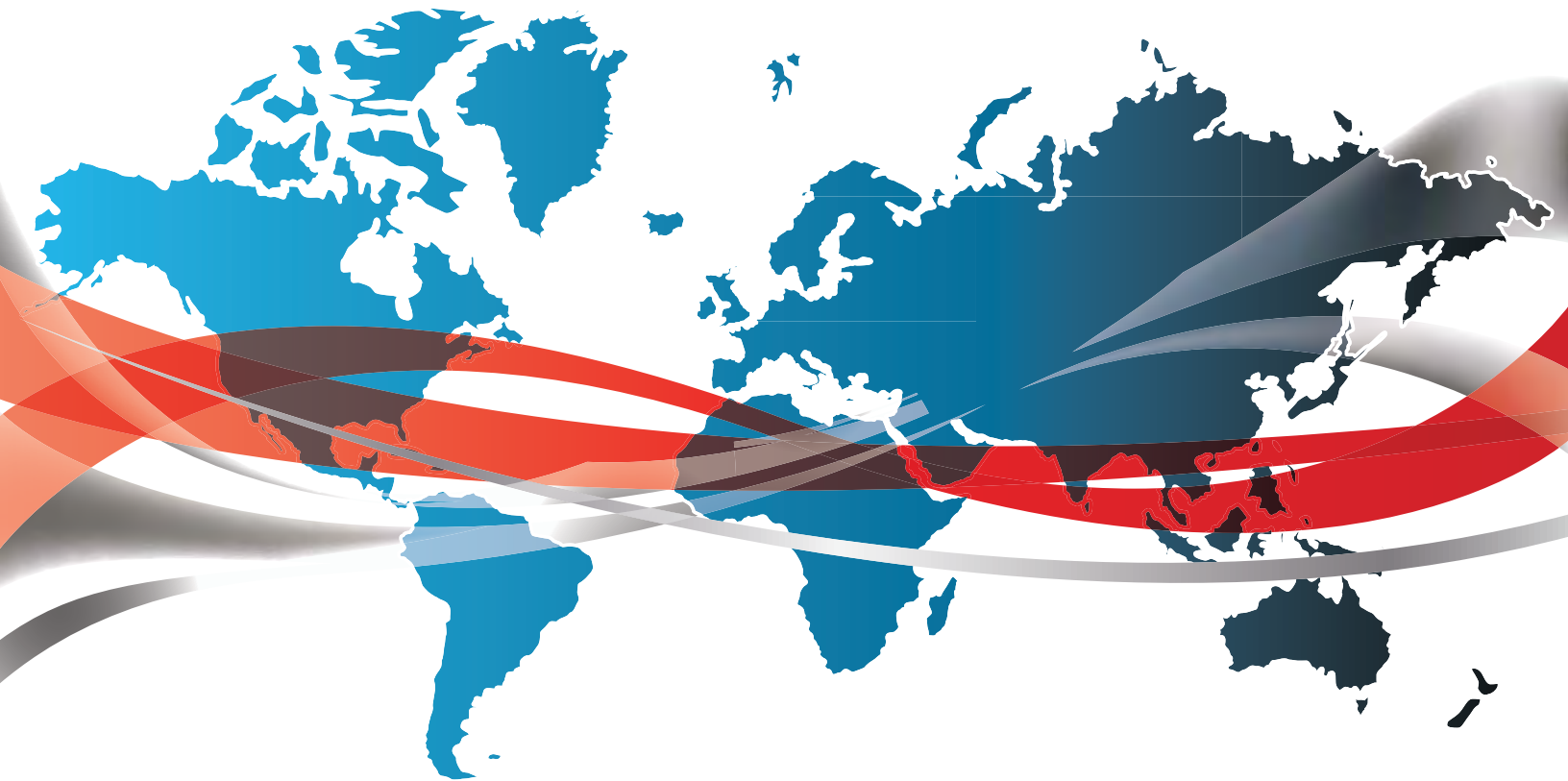


CASTI

Code and Standards Training Institute



CASTI Career Path

rev. 130531

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CAST CAREER PATH DIAGRAM

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CASTI Inspection Career Path for Inspectors and Engineers



Prior code experience
(ASME, API, CSA, etc.)

* For individuals without prior ASME code experience, it is recommended that CASTI's Introduction to ASME Pressure Equipment Codes course be taken before beginning your inspector career path.

Level 1
A
CSA W178.2
Welding Inspector
Level 1

B
Alberta Welding
Examiner

C
AWS Certified
Welding Inspector

D
CSA W178.2
Welding Inspector
Level 2

D1
Level 2
Additional Code Exams

Two year waiting period is required to be eligible to write CSA W178.2 Level 2 exams

Employment Opportunities:
for owner/users, fabricators, construction, 3rd party inspectors, material/equipment suppliers, unions, etc.
- Welding Supervisor
- QA/QC Supervisor
- Welding Engineer
- Tank Engineer
- QA/QC Manager

Employment Opportunities:
for owner/users, fabricators, construction, 3rd party inspectors, material/equipment suppliers, testing facilities, trade unions, etc.
- Welding Inspector - Level 1 (AWS CAWI)
- Welding Inspector - Level 2 (AWS CWI)
- Welding Examiner (Qualifying Welders)
- API Equipment Inspector (pressure vessels, piping, tanks)
- Welding Inspector - Level 3 (AWS SCWI)
- Senior Inspector (multiple inspector certifications)

E
API 510
Pressure Vessel Inspector

F
API 570
Piping Inspector

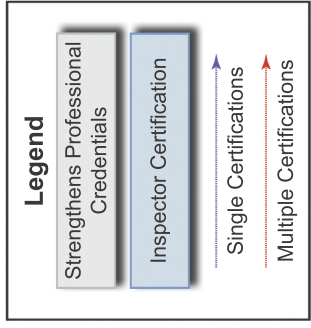
G
API 653
Storage Tank Inspector

H
Alberta In-Service
Pressure Vessel Inspector

E1
API 571
Supplementary Certificate

E2
API 577
Supplementary Certificate

E3
API 580
Supplementary Certificate



Welding Inspector/Examiner Career Path

1. The shortest and easiest step to begin a career as an inspector is to obtain the CSA Level 1 Certified Welding Inspector (CWI) accreditation; (**see Box A**)
 - Note 1: if code experience is insufficient, it is recommended to take the Introduction to ASME Codes course as the first step*;
 - Note 2: jumping steps in this career path by going directly to the Alberta Welding Examiner (WE) or API Inspector certification programs are much larger steps that require considerable thought before attempting them; please contact CASTI customer support staff for further discussion to assist you with this decision;
2. there is a 2-year waiting period for a CSA Level 1 CWI before challenging their Level 2 CWI exams; during this 2 year period, the Alberta WE certification can be obtained, which typically can take 12 to 18 months; (**see Box B**)
3. the Alberta WE certification typically takes about 1 to 1.5 years to complete;
4. since there is some overlap between CSA Level 1 CWI and the Alberta WE certifications, the individual will be better prepared for challenging the WE program after achieving the CSA Level 1 CWI status, particularly if they have multiple code endorsements;
5. during the 2 year waiting period between the CSA Level 1 and Level 2 CWI programs, the inspector can continue their career development by also obtaining other code endorsement certifications, since CSA W178.2 limits inspection work to the code that was written during the initial examination; (**see Box A1**)
6. with this career development path, since there is a significant overlap between the Alberta WE and CSA Level 2 CWI programs, the inspector will be better prepared to challenge the CSA Level 2 CWI exams; (**see Box D**)
7. with the CSA Level 2 CWI certification, by recognition, the inspector can become an AWS CWI; (**see Box C**)
8. to strengthen professional credentials and create more job opportunities, the inspector can continue their career development by also obtaining other code endorsement certifications, since the AWS CWI and CSA W178.2 certifications limit inspection work to the code that was written during the initial examination; (**see Box C1 and D1**)
9. after 2+ years with the above CASTI career development path, the individual will have obtained the following three certifications:
 - CSA Level 2 (with multiple code endorsements),
 - AWS CWI, and
 - Alberta Welding Examiner.

API Pressure Equipment Inspector Career Path

1. Now that the welding inspector/examiner has experience with various codes and writing exams, the next step in their career development is to follow the API pressure equipment inspector career path, which will be a smoother and more natural progression;
2. the first API inspector step is to become an API 510 Pressure Vessel Inspector since it is mandated in Alberta by the Pressure Equipment Safety Regulation (PESR, which is the law) that only certified in-service inspectors are permitted to inspect pressure vessels, which provides job opportunities; (**see Box E**)
3. with the API 510 certification, the individual can then write the Alberta In-Service Pressure Vessel Inspector certification exam; (**see Box H**)
4. although there are no other PESR requirements for API inspectors, most companies require piping and storage tank inspectors to be certified as:
 - API 570 Piping Inspector, and (**see Box F**)
 - API 653 Storage Tank Inspector; (**see Box G**)
5. after becoming either an API 510, 570, or 653 inspector, the inspector can further their career development by obtaining the three API advanced knowledge certifications: (**see Box E1, E2, and E3**)
 - API 571 Damage Mechanisms
 - API 577 Welding Inspection and Metallurgy
 - API 580 Risk-Based Inspection

NOTE: The API 571, 577, 580 Advanced Knowledge Certifications can now be obtained at any time the candidate meets the qualifying requirements and can be taken prior to the basic API certifications (API 510, 570, 653).

This CASTI Inspector Career Path will achieve the status of a "complete pressure equipment inspector" having obtained:

1. CSA Level 2 Welding Inspector
2. AWS Certified Welding Inspector
3. Alberta Welding Examiner
4. API 510 Pressure Vessel Inspector
5. Alberta In-Service Pressure Vessel Inspector
6. API 570 Pressure Piping Inspector
7. API 653 Aboveground Storage Tank Inspector
8. API 571 Certification
9. API 577 Certification
10. API 580 Certification

Although it is not necessary to achieve all of these certifications to be employed as a welding or pressure equipment inspector, the more certifications one can achieve, the more employable they become.

Getting Started: Alberta Welding Examiner

A Welding Examiner Certificate of Competency authorizes the holder to conduct Performance Qualification (PQ) tests on behalf of a testing organization while employed by that testing organization. All ABSA authorized testing organizations are required to employ a Welding Examiner to conduct performance qualification tests.

Education and Experience Requirements

To take a Welding Examiner Certificate of Competency examination, a candidate must meet at least one of the following criteria:

- a) Professional Engineer with a Bachelor of Science Degree in Metallurgy, Welding, or Mechanical Engineering, or
- b) First Class Power Engineers Certificate of Competency, or
- c) Certified Engineering Technologist (CET) with a Diploma in Materials or Mechanical Engineering Technology, or
- d) Diploma in Welding Engineering Technology, or
- e) Grade A or B Pressure Welder, or
- f) Canadian Standards Association (CSA) W178.2 Welding Inspector Level III, or
- g) Safety Codes Officer Boiler Discipline, or
- h) Other Equivalent Qualification, as determined by the Administrator

Welding Examiner Examinations

Paper #1 - Welding Processes and Filler Metals **3.5 Hours**

Welding Processes (Weighting 50%); closed-book
Cutting Processes (Weighting 15%)
Filler Metals (Weighting 35%); open-book

Paper #2 - Metallurgy and Materials **3.5 Hours**

Properties and Structure of Metals (Weighting 20%)
Steel Manufacturing (Weighting 35%)
Welding Metallurgy (Weighting 35%); closed-book
Material Specifications (Weighting 10%); open-book

Paper #3 - Quality Control and Weld Evaluation **3.5 Hours**

Quality Control (Weighting 30%)
Non-Destructive Examination (Weighting 35%)
Weld Examination (Weighting 35%)

Paper #4 - Regulations and Codes
3.5 Hours

Pressure Equipment Safety Regulation and CSA B51 (Weighting 5%)

Pressure Welders Regulation (Weighting 10%)

ASME Section IX-Part QW Welding (Weighting 65%)

ASME Sections I, VIII, B31.1, B31.3 and National Board Inspection Code (Weighting 20%)

Renewals

- Every 3 years, reapply

Getting Started: CSA W178.2 Level 1 & 2

Education and Experience Requirements

CSA W178.2 Level 1 Welding Inspector shall have:

- a) obtained at least 1 year of qualified experience or
- b) successfully completed recognized courses in the fundamental principles and practices of welding, quality control, and welding inspection

NOTE: Level 1 WI shall perform welding inspection under Level 2 or Level 3 WI or by non-certified personnel who, in the opinion of the CWB, possess the knowledge, skills training, and experience required to perform such supervision

CSA W178.2 Level 2 Welding Inspector shall have:

- a) min. 2 years of experience as a certified Level 1 welding inspector

NOTE: In exceptional cases, practicing welding inspectors may be eligible to qualify directly as Level 2 or Level 3. In such cases, candidates shall demonstrate to the CWB that their combination of education, training, and experience is equivalent to either Level 2 or Level 3.

CSA W178.2 Welding Inspector Examinations

Level 1:

- a) welding inspection*; 2 hrs, closed (75 multiple choice questions)
- b) product category code exam; 2 hrs, open (45 multiple choice questions)
- c) W178.2; 0.5 hrs, open (15 multiple choice questions)
- d) visual practical; 0.5 hr (10 samples for visual detection and identification)

min. grade: 70%

total: 5 hrs

*Candidates may attend an approved training program and meet the requirements for exemption of Welding Inspection closed-book exam

Level 2:

- a) welding fundamentals and welding inspection; 3.5 hrs, closed (150 multiple choice questions)
- b) descriptive report writing; 1 hr, closed (5 essay questions)
- c) product category code exam; 2 hrs, open (45 multiple choice questions)
- d) W178.2*; 0.5 hrs, open (*non-applicable if written in Level 1)
- e) visual; 0.5 hr (10 samples for visual detection and identification)

min. grade: 70%

total: 7.0 hrs

*Candidates may attend an approved training program and meet the requirements for a shortened version of the Welding Fundamentals and Welding Inspection closed-book exam.

Code Exams:

- a) CSA W47.1 and W59
- b) ABS
- c) CSA S473
- d) ASME B31.3
- e) CSA Z662
- f) ASME VIII-1 and IX
- g) API 650

Renewals

Levels 1, 2, 3:

- 3 years reapply
- 6 years re-exam; written exam(s) on certified code(s)

Reciprocity and Recognition

From CSA → AWS

CSA W178.2 Level 1 → AWS CAWI
CSA W178.2 Level 2 → AWS CWI

From AWS → CSA

CAWI* → Level 1
CWI* → Level 2
(after 2 years as a CWI)

* must write a 0.5 hr open-book W178.2 exam

NOTE: When applying as an AWS CWI for CSA W178.2 Recognition, you will be permitted to inspect the equivalent code endorsement(s) for which you wrote your AWS CWI exam.

Getting Started: AWS Certified Welding Inspector

Education and Experience Requirements

Associate Welding Inspector shall have:

- a) high school graduate and
- b) min. of 2 years of *qualified* experience with welding fabrication and standards and directly involved in 1 or more *qualified* areas; or
- c) an eighth grade level of schooling with a minimum of 4 years work experience in 1 or more *qualified* areas; or
- d) alternatively, 2 years post-high school education in welding curriculum or engineering technology, engineering, or physical sciences, and a min. of 6 months experience in any of the welding functions

NOTE: CAWI shall perform inspections under the active supervision of a CWI or SCWI

Welding Inspector shall have:

- a) high school graduate and
- b) min. of 5 years of *qualified* experience with welding fabrication and standards and directly involved in 1 or more *qualified* areas; or
- c) an eighth grade level of schooling with a minimum of 9 years work experience in 1 or more *qualified* areas; or
- d) alternatively, max. of 2 years of post-high school education may be substituted for an equal number of years of the required 5 years experience, as follows:
 - i) eng., eng. tech., or sc. degree; 2 years max.
 - ii) eng. or eng. tech. courses; 2 years max.
 - iii) trade/vocational courses related to welding; 1 year max.

NOTE: the areas of *qualified* experience options are listed in AWS B5.1 paragraph 5.5

AWS Welding Inspector Examinations

CAWI:

- a) fundamentals; 2 hours, closed-book
- b) practical; 2 hours
- c) selected code; 2 hours, open-book

min. grade: 60%
total: 6 hours

CWI:

- a) fundamentals; 2 hours, closed-book
- b) practical; 2 hours
- c) selected code; 2 hours, open-book

min. grade: 72%
total: 6 hours

Code Exams:

- a) AWS D1.1
- b) AWS D1.2
- c) AWS D1.5
- d) AWS D15.1
- e) API 1104
- f) ASME IX, B31.1, and B31.3
- g) ASME VIII-1 and IX

Renewals for CAWI, CWI, and SCWI

CAWI:

- valid for 3 years, nonrenewable

CWI/SCWI:

- 3 years reapply
- 9 years re-exam; either a practical or code exam or by experience and continuing education (min. 80 PDH with 20 PDH within last 3 years)

Reciprocity and Recognition

From CSA to AWS

CSA W178.2 Level 1 to AWS CAWI with endorsement code(s)

CSA W178.2 Level 2 to AWS CWI with endorsement code(s)

From AWS to CSA

CAWI* to Level 1 with endorsement code(s)

CWI* to Level 2 with endorsement code(s), but only after 2 years as a CWI

* must write a 0.5 hour open-book W178.2 exam

NOTE: When applying as an AWS CWI for CSA W178.2 Recognition, you will be permitted to inspect the equivalent code endorsement(s) for which you wrote your AWS CWI exam.

Getting Started: API 510 Pressure Vessel Inspector

API's Inspector Certification Programs are based on industry-developed standards that are recognized and used with confidence worldwide. These standards have also provided a uniform platform that serves as a model for many state and government regulations. These API programs emphasize professional credibility and process integrity. They enable inspectors to play an active role in improving industry health and safety; environmental performance; ensuring compliance and self-regulation; and strengthening management control and internal inspection capabilities.

Education and Experience Requirements

To take the API 510 examination, a candidate must meet at least one of the following criteria:

- a) BS or higher in Engineering with a minimum of 1 year experience in supervision or performance of inspection activities as described in API 510
- b) 2-year degree or certificate in Engineering or Technology with a minimum of 2 years experience in design, construction, repair, operation, or inspection of pressure vessels, of which one year **must** be in supervision performance of inspection activities.
- c) High school diploma or equivalent with a minimum of 3 years experience in design, construction, repair, operation, or inspection of pressure vessels, of which one year **must** be in supervision performance of inspection activities.
- d) Have 5 or more years of experience in design, construction, repair, operation, or inspection of pressure vessels, of which one year **must** be in supervision performance of inspection activities.

API 510 Pressure Vessel Inspector Examination

- API examination consist of 150 multiple choice questions.
- It is an 8-hour exam
 - 4 hours open book
 - 4 hours closed book
- The exam candidate must bring the applicable API & ASME reference publications listed on the [Effectivity Sheet](#) pertaining to the API 510 exam for the open-part of the examination

The examination consists of two parts.

The closed-book part tests the candidate on knowledge and tasks requiring everyday working knowledge of API Standard 510 and the applicable reference documents.

The open-book portion of the examination requires the use of more detailed information that the inspector is expected to be able to find in the documents, but would not normally be committed to memory.

A. API Publications:

API 510, Pressure Vessel Inspection Code
API RP 571, Damage Mechanisms Affecting Equipment in Refining Industry
API RP 572, Inspection of Pressure Vessels (except Appendix B)

API RP 576, Inspection of Pressure-Relieving Devices
API RP 577, Welding Inspection and Metallurgy

B. ASME Publications:

Section V, Nondestructive Examination
Section VIII, Division 1, Rules for Constructing Pressure Vessels
Section IX, Welding and Brazing Qualifications

NOTE: Refer to the Publications Effectivity Sheet in the application package for a list of specific editions, addenda, and supplements of the reference publications that are effective for your exam date. All API and ASME publications are copyrighted material. Photocopies of publications are not permitted at the exam. These code documents can be purchased from CASTI.

Renewals

- every 3 years, reapply
- every 6 years re-exam; online exam on latest edition of 510

Getting Started: API 570 Piping Inspector

API's Inspector Certification Programs are based on industry-developed standards that are recognized and used with confidence worldwide. These standards have also provided a uniform platform that serves as a model for many state and government regulations. These API programs emphasize professional credibility and process integrity. They enable inspectors to play an active role in improving industry health and safety; environmental performance; ensuring compliance and self-regulation; and strengthening management control and internal inspection capabilities.

Education and Experience Requirements

To take the API 570 examination, a candidate must meet at least one of the following criteria:

- e) BS or higher in Engineering with a minimum of 1 year experience in supervision or performance of inspection activities of piping systems as described in API 570
- f) 2-year degree or certificate in Engineering or Technology with a minimum of 2 years experience in Design, construction, repair, operation, or inspection of piping systems, of which 1 year **must** be in supervision or performance of inspection activities as described in API 570
- g) High school diploma or equivalent with a minimum of 3 years experience in design, construction, repair, operation, or inspection in-service piping systems, of which 1 year **must** be in supervision or performance of inspection activities as described in API 570
- h) Have 5 or more years of experience in design, construction, repair, operation, or inspection in-service piping systems, of which 1 year **must** be in supervision or performance of inspection activities as described in API 570

API 570 Piping Inspector Examination

- API examination consist of 150 multiple choice questions.
- It is an 8-hour exam
 - 4 hours open book
 - 4 hours closed book
- The exam candidate must bring the applicable API & ASME reference publications listed on the [Effectivity Sheet](#) pertaining to the API 570 exam for the open-part of the examination

The examination consists of two parts.

The closed-book part tests the candidate on knowledge and tasks requiring everyday working knowledge of API Standard 570 and the applicable reference documents.

The open-book portion of the examination requires the use of more detailed information that the inspector is expected to be able to find in the documents, but would not normally be committed to memory.

A. API Publications:

API Standard 570, Inspection, Repair, Alteration, and Rerating of In-Service Piping Systems

API RP 571, Damage mechanisms Affecting Fixed equipment in the Refining Industry
API Recommended Practice 574, Inspection Practices for Piping System Components
API RP 577, Welding Inspection and Metallurgy
API Recommended Practice 578, Material Verification Program for New and Existing Alloy Piping Systems

B. ASME Publications:

Section V, Nondestructive Examination, and
Section IX, Welding and brazing Qualifications
B16.5, Pipe Flanges and Flanged Fittings
B31.3, Process Piping

NOTE: Refer to the Publications Effectivity Sheet in the application package for a list of specific editions, addenda, and supplements of the reference publications that are effective for your exam date. All API and ASME publications are copyrighted material. Photocopies of publications are not permitted at the exam. These code documents can be purchased from CASTI.

Renewals

- every 3 years, reapply
- every 6 years re-exam; online exam on latest edition of 570

Getting Started: API 653 Aboveground Storage Tanks Inspector

API's Inspector Certification Programs are based on industry-developed standards that are recognized and used with confidence worldwide. These standards have also provided a uniform platform that serves as a model for many state and government regulations. These API programs emphasize professional credibility and process integrity. They enable inspectors to play an active role in improving industry health and safety; environmental performance; ensuring compliance and self-regulation; and strengthening management control and internal inspection capabilities.

Education and Experience Requirements

To take the API 653 examination, a candidate must meet at least one of the following criteria:

- i) BS or higher in Engineering with a minimum of 1 year experience in supervision or performance of inspection activities of piping systems as described in API 653
- j) 2-year degree or certificate in Engineering or Technology with a minimum of 2 years experience in Design, construction, repair, operation, or inspection of piping systems, of which 1 year **must** be in supervision or performance of inspection activities as described in API 653
- k) High school diploma or equivalent with a minimum of 3 years experience in design, construction, repair, operation, or inspection in-service piping systems, of which 1 year **must** be in supervision or performance of inspection activities as described in API 653
- l) Have 5 or more years of experience in design, construction, repair, operation, or inspection in-service piping systems, of which 1 year **must** be in supervision or performance of inspection activities as described in API 653

API 653 Aboveground Storage Tanks Inspector Examination

- API examination consist of 150 multiple choice questions.
- It is an 8-hour exam
 - 4 hours open book
 - 4 hours closed book
- The exam candidate must bring the applicable API & ASME reference publications listed on the [Effectivity Sheet](#) pertaining to the API 653 exam for the open-part of the examination

The examination consists of two parts.

The closed-book part tests the candidate on knowledge and tasks requiring everyday working knowledge of API Standard 653 and the applicable reference documents.

The open-book portion of the examination requires the use of more detailed information that the inspector is expected to be able to find in the documents, but would not normally be committed to memory.

A. API Publications:

API Recommended Practice 571, Damage Mechanisms Affecting Equipment in Refining Industry

API Recommended Practice 577, Welding Inspection and Metallurgy
API Recommended Practice 575, Inspection of Atmospheric and Low Pressure
Storage Tanks
API Standard 650, Welded Steel Tanks for Oil Storage
API Recommended Practice 651, Cathodic Protection of Aboveground Petroleum
Storage
Tanks
API Recommended Practice 652, Lining of Aboveground Petroleum Storage Tank
Bottoms
API Standard 653, Tank Inspection, Repair, Alteration, and Reconstruction

B. ASME Publications:

Section V, Nondestructive Examination
Section IX, Welding and Brazing Qualifications

NOTE: Refer to the Publications Effectivity Sheet in the application package for a list of specific editions, addenda, and supplements of the reference publications that are effective for your exam date. All API and ASME publications are copyrighted material. Photocopies of publications are not permitted at the exam. These code documents can be purchased from CASTI.

Renewals

- every 3 years, reapply
- every 6 years re-exam; online exam on latest edition of 653

Getting Started: Alberta In-Service Pressure Vessel Inspector

In Alberta, pressure equipment owner-users must have an Integrity Management System (IMS) that complies with the Alberta Pressure Equipment Safety Regulations (PESR). In compliance, all IMSs require personnel who inspect and certify installed pressure vessels, boilers, fired equipment and similar equipment, and those who supervise in-service inspection staff, shall hold the required Alberta In-service pressure equipment Inspector Certification and be certified as competent to perform the specific type of inspection.

Education and Experience Requirements

In order to qualify as an in-service pressure equipment inspector, a candidate must also have the following combinations of education and experience:

- High school diploma or General Education Diploma (GED) equivalent; and
- Bachelor's degree in Engineering or First Class Power Engineers Certificate and 2 years of experience; or
- 2-year diploma or certificate in engineering or technology or Second Class Power Engineers Certificate and 3 years of experience; or
- Technical training in Boiler and/or Pressure Vessel Inspection and 4 years of experience (including continuing education, correspondence or code course(s) in at least one of the categories in "Acceptable Pressure Equipment Experience".

Acceptable Pressure Equipment Experience:

Must include a minimum of one year pressure equipment inspection experience or equivalent plus one of the following categories:

- Engineering, design or design registration; or
- Manufacturing, including fabrication methods or processes in either shop or field; or
- In charge in the operation of a power plant exceeding 5 000 kW (Second or First Class plant); or
- Performing repair, alteration or maintenance of boilers and/or pressure vessels; or
- Supervising a quality control system related to boiler and/or pressure vessel manufacturing, repair or alteration in shop or field; or
- Inspection of boilers and/or pressure vessels either in service or during construction in shop or field; or
- Performing as a minimum NDE Level II examiner of boilers and/or pressure vessels

AND

Third Party Certification Requirements

To be eligible for certification, the candidate must meet ONE of the following third party certifications:

- Permanent Safety Codes Officer (Boiler) Level III; or
- API 510 Certification; or
- Provide evidence of successful challenge of the API 510 certification examination within the previous 5 years; or
- National Board Inservice Commission; or
- Provide evidence of successful challenge of National Board Inservice Commission Examination within the previous 5 years.

In-service Pressure Vessel Inspector Examination

- Exam consists of 100 multiple choice questions
- It is a 3 hour open-book exam
- This examination has a set passing point of 70%

Exam questions are broken down and graded in the 15 areas identified in the ABSA AB-59 syllabus.

NOTE: Published legislation, codes and standards referenced in the syllabus are permitted for the examination. Reference materials used during the examination are to be authorized "hard copy" paper versions as published. All reference materials must be free of any insert pages, notations, answers or crib sheets. Except for the American Society of Mechanical Engineers (ASME) codes, sharing of reference materials with other candidates is not permitted.

Renewals

Every 5 years, must meet the following requirements:

- have in-service pressure equipment inspection experience,
- continuing education in pressure equipment, and
- successfully pass the 1 hour, 25-question re-certification examination

Getting Started: API 571 Certification Certification Program for Advanced Knowledge of Corrosion and Materials

The objective of this Certification program is to provide documented evidence of advanced knowledge and expertise in the area of Corrosion and Materials based on the information contained in API RP 571.

Education and Experience Requirements

Education	Experience
Engineering Degree	1 year of experience in petrochemical industry
2-Year Technical Degree	2 years of experience in petrochemical industry
High School	3 years of experience in petrochemical industry
No Formal Education	5 years of experience in petrochemical industry

Or have a valid and current basic API certification as one of the following:

API 510
API 570; or
API 653

API 571 Inspector Examination

- API 571 examination consist of 70 multiple choice questions
- It is a 4-hour closed-book exam
- No reference materials will be permitted at the examination
- This examination has a set passing point of 70%, or 49 correctly answered questions

The examination will be based on the API Recommended Practice 571 – Damage Mechanisms Affecting Fixed Equipment in the Refining Industry with the exception of the following sections: 1.1, 3.1, 4.1, and 5.2.

NOTE: Questions become effective when the applicable API documents (namely API RP571 – any new issue, addenda or rewrite) have been in use for 12 months since issue date. This code documents can be purchased from CASTI.

Renewals

- every 3 years, reapply

Getting Started: API 577 Certification Certification Program for Advanced Knowledge of Welding Inspection and Metallurgy

The objective of this Certification program is to provide documented evidence of advanced knowledge and expertise in the area of Welding Inspection and Metallurgy based on the information contained in API RP 577.

Education and Experience Requirements

Education	Experience
Engineering Degree	1 year of experience in petrochemical industry
2-Year Technical Degree	2 years of experience in petrochemical industry
High School	3 years of experience in petrochemical industry
No Formal Education	5 years of experience in petrochemical industry

Or have a valid and current basic API certification as one of the following:

API 510
API 570; or
API 653

API 577 Inspector Examination

- API 577 examination consist of 70 multiple choice questions
- It is a 4-hour closed-book exam
- No reference materials will be permitted at the examination
- This examination has a set passing point of 70%, or 49 correctly answered questions

The examination will be based on the API Recommended Practice 577 – Welding Inspection and Metallurgy

NOTE: Questions become effective when the applicable API documents (namely API RP577 – any new issue, addenda or rewrite) have been in use for 12 months since issue date. This code documents can be purchased from CASTI.

Renewals

- every 3 years, reapply

Getting Started: API 580 Certification Certification Program for Advanced Knowledge of Risk-Based Inspection

The objective of this Certification program is to provide documented evidence of advanced knowledge and expertise in the area of Risk-Based Inspection (RBI) based on the information contained in API RP 580.

Education and Experience Requirements

Education	Experience
Engineering Degree	1 year of experience in petrochemical industry
2-Year Technical Degree	2 years of experience in petrochemical industry
High School	3 years of experience in petrochemical industry
No Formal Education	5 years of experience in petrochemical industry

Or have a valid and current basic API certification as one of the following:

API 510
API 570; or
API 653

API Inspector Examination

- API 580 examination consist of 70 multiple choice questions
- It is a 4-hour closed-book exam
- No reference materials will be permitted at the examination
- This examination has a set passing point of 70%, or 49 correctly answered questions

The examination will be based on API Recommended Practice 580 – Risk-Based Inspection.

NOTE: Questions become effective when the applicable API documents (namely API RP580 – any new issue, addenda or rewrite) have been in use for 12 months since issue date. This code documents can be purchased from CASTI.

Renewals

- every 3 years, reapply