

 200901009799 (852807W)	Document Type	CERTIFICATION SCHEME	QM Level	2	Document Number	RSA-CRT-0800-03
	INTERNATIONAL PERSONNEL CERTIFICATION SCHEMES				Revision	2
	Scheme	Welding Inspector in accordance with AWS B5.1			Page	
					Effective Date	1 st October 2023

1.0 PRE-REQUISITE

1.1 Candidates applying for certification as Associate Welding Inspector, Welding Inspector, or Senior Welding Inspector must fulfil the relevant education and experience requirements outlined in Table 1.

1.2 The required work experience must involve one or more welding-related functions as specified in Section Level of Certification.

Table 1: Education and Experience Requirements

No.	Requirement	Requirements		
		AWI	WI	SWI
A	Requirements			
1	Pre-requisite (6 years out of 8 years)	-	-	WI
2	High school graduate, or hold a state or military approved high school equivalency diploma	Yes	Yes	Yes
3	Years of experience in an occupational function with a direct relationship to weldments fabricated to national or international standards	2	5	15
B	Alternatives to A2 and A3, years of work experience in welding functions as defined under 6.0			
1	Eighth grade level of schooling	4	9	-
2	Less than an eighth grade level of schooling	6	12	-
3	Eighth grade level of schooling with a minimum of one year of vocational education and training in a welding curriculum	3	-	-
4	Two years post-high school education in welding curriculum or engineering technology, engineering, or physical sciences	1/2	-	-
5	Bachelor or higher degree in Welding in welding engineering or welding technology	-	1	11
6	Associate or higher degree in welding or non-welding related engineering technology, engineering, or physical sciences	-	2	12
7	Engineering/technical school courses with successfully completed courses in a curriculum that can be (or could be) applied to (B5) above	-	3	13
8	Trade/vocational courses with successfully completed courses in a curriculum related to welding that can be (or could be) applied to (B5) above	-	4	14

 200901009799 (852807W)	Document Type	CERTIFICATION SCHEME	QM Level	2	Document Number	RSA-CRT-0800-03
	INTERNATIONAL PERSONNEL CERTIFICATION SCHEMES				Revision	2
	Scheme	Welding Inspector in accordance with AWS B5.1			Page	
					Effective Date	1 st October 2023

1.3 Applicants shall provide documentation that includes a record of all education, relevant work, and employment history. The documentation shall consist of:

- An education background with relevant supporting documents.
- A listing of all relevant employers and their contact information when available.
- The nature of the work performed the dates of employment.
- A letter of verification from the employer or client.

1.4 The educations, relevant work and employment documentation is subject to verification by Certification Department and false information is caused to reject the application and can disqualify the applicant from testing to become an Associate Welding Inspector, Welding Inspector or Senior Welding Inspector.

2.0 TRAINING REQUIREMENTS

2.1 Applicants shall submit documentary evidence, acceptable to RSA, demonstrating successful completion of training in the subjects and at the level corresponding to the certification being sought.

2.2 Training may be delivered through instructor-led sessions, personalized instruction, virtual instructor-led training, computer-based training, or web-based training.

2.3 Applicants for Associate Welding Inspector and Welding Inspector certifications shall successfully complete a training program covering the subjects specified in Table 2.

2.4 Applicants for Senior Welding Inspector certification shall successfully complete a training program covering the subjects specified in Table 3.

2.5 At a minimum, training shall provide sufficient knowledge to ensure that the applicant has an adequate understanding of each subject area.

 200901009799 (852807W)	Document Type	CERTIFICATION SCHEME	QM Level	2	Document Number	RSA-CRT-0800-03
	INTERNATIONAL PERSONNEL CERTIFICATION SCHEMES				Revision	2
	Scheme	Welding Inspector in accordance with AWS B5.1			Page	
					Effective Date	1 st October 2023

3.0 INDUSTRIAL EXPERIENCE

3.1 For all certification levels, required experience may be obtained after successful completion of the examination. Examination results shall remain valid for a period of three (3) years from the date of the examination.

3.2 Documentary evidence of experience shall be verified by the employer and submitted to RSA for approval.

Table 2: Associate Welding Inspector and Welding Inspector Training

Part	Subject	Required Training (Hours)
A	Fundamentals	16
1	Definition and Terminology	
2	Welding Processes	
3	Symbols – Welding and NDT	
4	Weld Examination	
5	Welding Performance	
6	Test Methods – NDT	
7	Heat Control & Metallurgy (carbon and low-alloy steel)	
8	Welding Related Calculations	
9	Duties and Responsibilities	
10	Destructive Tests	
11	Cutting	
B	Practical Application	16
1	Welding Inspection and Flaws	
2	Procedure and Welder Qualifications	
3	Mechanical Test and Properties	
4	NDT	
5	Utilization of Specification and Drawings	
C	Code Book Application	8
1	Qualification	
2	Fabrication	
3	Inspection	
4	Reports and Records	
5	Material and Design	

 200901009799 (852807W)	Document Type	CERTIFICATION SCHEME	QM Level	2	Document Number	RSA-CRT-0800-03
	INTERNATIONAL PERSONNEL CERTIFICATION SCHEMES				Revision	2
	Scheme	Welding Inspector in accordance with AWS B5.1			Page	
					Effective Date	1 st October 2023

3.3 Applicants shall possess experience in an occupational function directly related to weldments fabricated in accordance with national or international standards. Such experience shall involve one or more of the following:

- Development of procedures, inspection requirements, acceptance criteria, and specifications for weldments.
- Planning, control, and application of base metals and filler metals in the preparation and completion of production weldments
- Performance of welding activities as a welder, welding operator, or tack welder in fabrication, manufacturing, or construction.

Table 3: Senior Welding Inspector Training

No.	Subject	Required Training (Hours)
A	Technical Fundamental	16
1	Heat Control & Metallurgy (High Alloy Steel and Nonferrous Materials)	
2	NDT Fundamentals, Technique and Applicability (VT, PT, MT, RT, UT)	
3	Welding and Allied Processes	
4	Destructive Testing Fundamentals, Techniques, and Applicability including Groove Welds, Fillet Welds, Stud Welds, and Weldability Testing	
5	NDT Applicability (LT)	
B	Administrative Fundamentals	16
1	Welding Procedure Qualification and Code Compliance	
2	Welding Personnel Qualification and Certification	
3	Welding Inspection and NDT Personnel (Qualification and Certification)	
4	Quality Assurance/Quality Management, including: - Quality Program - Document Control - Procurement and Supplier Control - Calibration - Quality Control - Process Control - Statistical Quality Control - Trend Analysis - Nonconformance Control - Auditing and Surveillance - Corrective Action - Records	
5	Project Management	
6	Personnel Management and Training Programs (Performance Evaluation)	

 200901009799 (852807W)	Document Type	CERTIFICATION SCHEME	QM Level	2	Document Number	RSA-CRT-0800-03
	INTERNATIONAL PERSONNEL CERTIFICATION SCHEMES				Revision	2
	Scheme	Welding Inspector in accordance with AWS B5.1			Page	
					Effective Date	1 st October 2023

4.0 VISION REQUIREMENTS

4.1 Requirements

The applicant shall provide documentary evidence of satisfactory vision in accordance with the requirements described in Sections 4.2 through 4.4 below.

4.2 Administration

The vision examinations shall be administered by an optometrist or a qualified person authorized by the employer. The tests of near visual acuity shall be carried out at initial certification and subsequent annually and verified by the employer.

4.3 Near-Vision Acuity

The examination shall ensure natural or corrected near-distance acuity in at least one eye such that the applicant can read a minimum of Jaeger Number 1 or Times Roman N4.5 or equivalent letters (having a height of 1.6mm) at the distance not less than 30.5cm.

4.4 Colour Contrast Differentiation

The examination shall demonstrate the capability of distinguishing and differentiating contrast among colors or shades of gray used in the method, as specified by the employer.