



YOUR STEP-BY-STEP PATHWAY TO CRI

INTRODUCTION

Radiographs (X-rays) reveal the hidden truths within welds—defects that could compromise an object's structural integrity. The **Certified Radiographic Interpreter (CRI)** credential, awarded by the American Welding Society (AWS), recognizes individuals skilled in accurately interpreting weld radiographs.

CRIs possess the following knowledge, skills and abilities:

- Evaluate the radiographic images to the required acceptance criteria.
- Shall be capable of evaluating the results of various radiographic exposure techniques including double wall view, single wall view, film side, source side, and double wall exposure. The RI shall be capable of understanding how the radiograph was processed in order to perform accurate interpretations.
- Produce clear and concise documented records of interpretations and radiographic media quality.

This guide outlines the path to CRI certification, detailing the necessary steps, requirements, and strategies to succeed.



ASSESS YOUR EXPERIENCE AND ELIGIBILITY

Before applying, ensure you meet the following prerequisites:

- **Education:** A high school diploma or GED equivalent.
- **Visual Acuity:** Ability to read Jaeger Number 2 letters at 12 inches with one eye, with or without corrective lenses. Test must be within seven months of your scheduled exam or renewal.
- **Experience:** Minimum 40 hours of organized training in radiographic interpretation, per Section 9 of AWS B5.15. Work experience, CWI certification, or other relevant education may be substituted with proper documentation.
- **Work Experience:** You must have at least a year's experience in radiographic interpretation, either certified by a company or nationally, or under the direct supervision of someone who is. Sometimes, up to six months of other nondestructive evaluation (NDE) experience or education can count towards this.



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ABOUT THE EXAM AND HOW TO APPLY

To apply, complete the CRI application through my.aws.org, submit all required documentation and fees, and schedule your exam upon AWS approval of your application. Exams are typically held the day after the CRI Seminar, allowing you to combine learning and testing efficiently.

- **General Knowledge Exam** – 3 hours, 70 multiple-choice questions covering welding, metallurgy, radiography theory, mathematics, and film selection.
- **Code Knowledge Exam** – 3 hours, 78 open-book multiple-choice questions focused on interpreting radiographs according to AWS, API, ASME, and ASTM standards.
- **Practical (Film Interpretation) Exam** – 3 hours, 40 questions requiring interpretation of at least 10 radiographs per specific codes or standards.



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PREPARE FOR THE EXAM

Preparation is key to passing the CRI exam. Reviewing seminar materials and practicing radiograph interpretation builds both skill and confidence.

- **Attend the CRI Seminar:** AWS offers a five-day seminar designed to impart the skills needed to master radiographic interpretation. The seminar teaches individuals how to correctly interpret indications found on radiographic media of welds or their surrounding metal. It is the perfect preparation for the CRI Certification exam, conveniently scheduled at the end of each seminar week.
- **Study Key Materials:** Physical copies of all the books/publications used during the seminar are listed below:
 - AWS D1.1/D1.1M:2008, AWS Structural Welding Code – Steel
 - API 1104, Welding of Pipelines and Related Facilities, 19th, and 20th Edition
 - ASME Section V, Article 2, Boiler & Pressure Vessel Code, Nondestructive Examination 2007
 - ASME Section V, SE-94 (ASTM E 94-04) Standard Guide for Radiographic Examination
 - ASME Section VIII, Division 1, Rules for Construction of Pressure Vessels, UW-51 and UW-52 and Appendix 10
 - ASTM E 747-04, Standard Practice for Design, Manufacture and Material Grouping Classification of Wire Image Quality Indicators (IQI) Used for Radiology
 - ASTM E 1025-05, Standard Practice for Design, Manufacture and Material Grouping Classification of Hole-Type Image Quality Indicators (IQI) Used for Radiology
 - ASTM E 1032-06, Standard Test Method for Radiographic Examination of Weldment
 - ASTM E 1742-08, Standard Practice for Radiographic Examination
- **Practice Interpretation:** Practice interpreting a variety of radiographs to build accuracy and speed.



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TAKE THE EXAM AND RECEIVE YOUR RESULTS

This is the moment where preparation meets practice. You'll demonstrate your ability to interpret weld radiographs with precision, applying AWS standards as you would on the job. Arrive early, bring required ID and materials, and approach each radiograph methodically—accuracy matters more than speed.

Passing Requirements:

- To pass, you must score at least 70% on each part and achieve an overall average of 80% across all three exam parts.
- If any part falls below the passing threshold, you may retake only the portion(s) that didn't meet the minimum score, provided your overall average still meets 80%. Otherwise, all three parts must be retaken.
- ! *Pro Tip: Review key concepts from your seminar or practice exercises right before the exam to reinforce confidence for the practical portion.*



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MAINTAIN YOUR CERTIFICATION

To keep your CRI certification active:

- **Renewal:** Submit a renewal application every three years to keep your CRI credential active.
- **Continuing Education:** Engage in ongoing professional development to stay current with industry standards and best practices.



**READY TO GET STARTED?
LEARN MORE ABOUT CRI CREDENTIALS**

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