

AWS B5.15:2010
An American National Standard



Specification for the Qualification of Radiographic Interpreters



American Welding Society



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American National Standards Institute
October 21, 2009**

Specification for the Qualification of Radiographic Interpreters

2nd Edition

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Prepared by the
American Welding Society (AWS) B5K Subcommittee on NDE Personnel

Under the Direction of the
AWS Personnel and Facilities Qualification Committee

Approved by the
AWS Board of Directors

Abstract

This specification defines the requirements for the qualification of radiographic interpreters. The qualification of radiographic interpreters requires experience, knowledge, and skills unique to the interpretation of radiographic media and the determination of acceptance criteria for weldments and adjacent base metal. Training and work experience in radiographic theory, procedures, weld and adjacent base metal defect recognition, radiographic processing, handling, storage, and code requirements relating to radiographic acceptance criteria are essential to ensuring the competence of individuals engaged in radiographic interpretation.



American Welding Society

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Personnel

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Foreword

This foreword is not part of AWS B5.15:2010, *Specification for the Qualification of Radiographic Interpreters*, but is included for informational purposes only.

This specification was developed by the Personnel and Facility Qualification Committee in response to an industry demand for a qualification document for radiographic interpreters. This specification establishes the qualification requirements from which a central certification agency or an employer may develop a certification program for radiographic interpreters. This is the second edition of this specification. The first edition was published in 2003; the first edition was amended in 2007.

The primary revision between the first edition and this edition is the addition of Subclause 10.2 on examination structure. This specification now provides examinations subjects and weights for those examinations subjects. This change was made in response to organizations and companies who implemented the first edition in their personnel certification and qualification. Revisions to the previous edition are underlined throughout the standard.

The purpose of radiographic interpretation is to properly assess indications produced on radiographic media during the process of weldment or adjacent base metal evaluation. The Radiographic Interpreter must be thoroughly familiar with the process of radiography as well as the welding processes. This includes, but may not be limited to: welding processes, materials, limitation of various testing methods, drawings, procedures, specifications, behavior of different types of radioactivity (particles and photons), film construction, behavior of energy sensitive imaging systems, mathematics, radiographic film selection, handling, and storage. For Radiographic Interpreters to be effective, they must not only be technically competent, but also consistent and ethically principled in their dealings with clients and employers.

Personnel seeking qualification to this specification should be prepared to receive instruction by their employers with regard to specific duties required for employment. In addition to the competence level and areas specified herein, each employer must provide job orientation and/or training to ensure the competence of their employees.

Comments and suggestions for the improvement of this standard are welcome. They should be sent to the Secretary, AWS Personnel and Facility Qualification Committee, American Welding Society, 550 N.W. LeJeune Road, Miami, FL 33126.

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Specification for the Qualification of Radiographic Interpreters

1. Scope

1.1 General. This specification establishes the requirements for qualification of radiographic interpreters. It describes how these personnel shall be qualified, establishes training requirements, defines experience requirements, and establishes areas and levels of knowledge required to perform the functions related to radiographic interpretation.

1.2 Training. The employer shall be responsible for providing job-specific training and/or orientation of the radiographic interpreter to ensure his/her understanding of the special requirements of the employer.

1.3 Personal Capabilities. It shall be the responsibility of the employer to determine if the radiographic interpreter is physically and mentally capable of performing the duties involved in the work assignment. Visual acuity requirements are specified in this specification. Mental capabilities shall include, but not be limited to, an ability to render fair and unbiased judgment and communicate said judgments to others in a manner which is helpful and well understood.

1.4 Rights of Employers. This specification is intended to supplement the requirements of an employer, standard, or other documents and shall not be construed as a preemption of the employer's rights and responsibilities for the quality of work provided under contract to others.

1.5 Terminology. As used in this specification, the word *shall* denotes a requirement; the word *should* denotes a guideline; and the word *may* denotes a choice.

1.6 Safety and Health. Some safety and health issues may be beyond the scope of this standard and therefore not be fully addressed by this standard. Users of this standard should consult ANSI Z49.1, *Safety in Welding, Cutting, and Allied Processes*, applicable federal, state, and local regulations and other relevant documents concerning safety and health issues not addressed herein.

2. Referenced Documents

ANSI Z49.1, *Safety in Welding, Cutting, and Allied Processes*¹

API 1104, *Welding of Pipelines and Related Facilities*²

ASME B31.1, *Power Piping*³

ASME B31.3, *Process Piping*³

ASME Boiler and Pressure Vessel Code, Section I: *Rules for Construction of Power Boilers*³

ASME Boiler and Pressure Vessel Code, Section V: *Nondestructive Examination*³

ASME Boiler and Pressure Vessel Code, Section VIII, Division 1: *Rules for Construction of Pressure Vessels*³

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² Published by the American Petroleum Institute, NW 1220 L Street, Washington, DC 20005-4070.

³ Published by the ASME International, Information Central, P.O. Box 2300, Fairfield, NJ 07007-2300.