

How Is the CWI Exam Structured, and Why?

BY LYNDSEY DECKARD

This column is intended to be a forum for discussing and explaining the workings of the Examination Bank Subcommittee of the American Welding Society Certification Committee. We solicit your questions and comments, which can be mailed to AWS, 550 NW LeJeune Rd., Miami, FL 33126, or e-mailed to yamamoto@aws.org.

The CWI examination consists of the following three parts: the Code Book, Fundamentals, and Practical. Examinees are assigned to one of three groups. Each group takes the three portions of the exam at different times. The order in which an applicant takes each part of the examination, (1st, 2nd, or 3rd) is determined by random selection. The exceptions to this are the nine-year renewal applicants who take only the practical portion of the exam, given during the first period of their session. All three portions are individually timed. Each portion of the examination must be completed in two hours.

The Code Book portion is an open book test of 46 questions intended to evaluate an applicant's familiarity with his or her selected code and with the individual's ability to find and apply information from that code. This portion also tests an applicant's ability to accurately read, and interpret, technical information, including footnotes, figures, and tables from the code while working under a moderate time constraint. Some subjects covered include welding procedure qualification, welder qualification, inspection, weld design, fabrication, and general provisions.

The Fundamentals portion of the exam is a closed book test consisting of 150 questions with the designed purpose of evaluating an applicant's knowledge of the fundamentals of welding. These fundamentals include terms and definitions, heat control,

The Certification Committee seeks to continuously improve its body of examinations. Questions about examination questions, challenges, protocol, or other related subjects can be addressed in this column.

metallurgy, reports and records, welding processes and procedures, destructive and nondestructive examination of welding, NDE symbols conversions and calculations, safety, and the duties and responsibilities of a Certified Welding Inspector.

The Practical portion of the exam, sometimes called the "hands-on" portion, serves to verify the applicant's ability to visually identify welding discontinuities and determine their acceptability or rejectability. Many of the questions on the Practical portion are asked using realistic weld samples with intentional discontinuities. The applicant is required to use standard weld inspection and measuring tools such as dial caliper, scale, micrometer, fillet weld gauges, and an undercut gauge. Conditions such as undercut, porosity, undersize, underfill, excess weld reinforcement, and fillet weld profile may be among the discontinuities the examinee is required to identify.

The Examination Bank Subcommittee of the Certification Committee has recently finished revising the Practical portion to

further clarify questions and sample welds. This is a part of the Certification Committee's continuous improvement activities. The end goal of these efforts is to have a body of examinations that are fair, challenging, and will maintain the high standards of the Certified Welding Inspector program. These high standards engender the legitimate sense of pride possessed by those who attain the title of American Welding Society Certified Welding Inspector.

Please send your questions about certification, examination questions, challenges, protocol, or other related certification subjects to be answered in this column.



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