The Answer Is Summer 2007

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ANSWERED BY
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Q: I work in a shipyard where we also build structures for the oil and gas industry (mostly platforms). For structural steel, most of the platform projects require that we use AWS D1.1, D1.1.2006 for Welding Code—Steel. For stiffened panel fabrication, many times there are fillet welded T-joints that are quite long. Often there are fillet weld root openings of more than 1⁄8 in., and many times the root opening is more than 1⁄8 in. is for less than the full length of the joint. Paragraph 5.22.1 of AWS D1.1 prohibits fitup gaps of more than 1⁄8 in. (everything we do is less than 3 in. thick). Our problem is that we disagree as to what corrective action we need to take. Some say we need to remove the member and do weld buildup, others say we need to change the joint to CJF, etc. Is there any sort of standard practice for this situation?

A: We don’t believe there are any industry-wide standard corrective actions for this type of out-of-tolerance fitup situation. Paragraph 5.22.1 of AWS D1.1 only prohibits fitup openings of greater than 1⁄8 in. (5 mm) for fillet welds in material less than 3 in. (75 mm) in thickness. However, D1.1 only prohibits this — it does not instruct the code user on how to correct the situation.

As your internal discussions on this issue have underscored, there are many ways that these excessive root openings can be corrected. The best corrective action will be a compromise of economics, your quality system requirements, and satisfying your client’s expectations and requirements (for instance, dimensional requirements or prohibited practices). Possible corrective actions include weld buildup of separated members such that when fitup of the root opening is less than 1⁄8 in. (5 mm), changing the joint (or only those portions of the joint with excessive root opening) to CJF, use of filler plates, use of increased fillet weld sizes, substituting the butting member, etc. Note that some of these solutions may require the approval of the Engineer as they involve practices not permitted by the code without the approval of the Engineer. (The Engineer is likely to be your client in the offshore industry.)

Q: What do I need to do to renew my SCWI? My nine years are almost up, I am overseas, and there are no AWS seminars that are given near here.

A: You should be able to find all the information you need at www.aws.org, by clicking on “certification.” AWS publication QC1:2007, Standard for AWS Certification of Welding Inspectors, can be downloaded for free from the AWS site. The standard cites all of the requirements for the certification of welding inspectors by AWS, including the requirements for nine-year recertification. We strongly recommend that you research the site and/or contact the AWS Certification Department (you can also find their contact information on the AWS Web site). Make sure you do this well in advance of your certification’s expiration date — if you are late you will have to retest.

You’ll note that there are various options for gaining enough credit for recertification without testing, and it is possible to gain sufficient credit without retesting and without attending an AWS-sponsored seminar. The activities for which you can receive credit include the following:

- Attending non-AWS-sponsored courses or seminars (related to the field of welding inspection, of course);
- Teaching a welding inspection related course seminar;
- Attending local Section meetings of technical societies where welding inspection related technical presentations are given;
- Presentation of a technical presentation related to welding inspection at a local or national conference;
- Publication of a paper or article related to the field of welding inspection in a nationally recognized publication;
- Other activities as outlined in QC1.

Q: Is it permissible to continually use welding and inspection standards that have been replaced by newer standards?

A: When you say replaced, we are interpreting that to mean that the standard has been replaced by a more updated version/revision only and not replaced by a completely rewritten new stand-alone standard. The answer then is both yes and no. Many projects begin by using the most current up-to-date standard(s) and due to the overall length of the project, may see a new revision or revisions issued before the completion of the project. These projects generally always use the same year standards throughout the entire project duration.

If you are working with older standards that have been revised and updated, you must ensure that you comply with all contract specifications relating to the correct standard year and any possible addenda that may apply when applicable. If no reference is given to identify what year and/or years of standards to utilize, then this information should be referred back to the contract specification originator. Many times, contract specifications will contain a blanket statement indicating that the “most current year issued applicable to each reference standard shall be used for this project application.”

If your company is still using older standards for performing inspection and NDE services for customers who do not specify any particular inspection standard, it would be advisable to conduct the appropriate research beforehand to ensure that the standard and acceptance criteria you are applying are correct for the application at hand. It is not uncommon to see the incorrect acceptance criteria being applied within the same standard where more than one criteria are referenced or identified.

Q: We are looking at qualifying an AWS welding procedure using S32205 duplex stainless steel with ER2209 filler metal. Can you help me out with the correct material P number and AWS welder metal classification?

A: P10H and AWS 5.9, F number 6 and A number 8.

Inspection Trends encourages question and answer submissions. Please mail to the editor (mjohnsen@aws.org).

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