AWS C3.6M/C3.6:2016-AMD1 Interpretation

Subject: Uninterpretable discontinuities
Code Edition: AWS C3.6M/C3.6:2016-AMD1 (Ed. 4)
Code Provision: Subclause 6.6
AWS Log: C3.6AMD1-16-I01

Inquiry: (1) The Quality Assurance Provisions (Section 6), External Discontinuities (6.6.1), Pinholes and Voids Section (6.6.1.1) states that: “Pinholes, voids, or filler metal skips are allowed provided they shall not exceed the limits specified below. Discontinuities of less than 0.38 mm [0.015”] are uninterpretable and are not considered as defects.”

6.6.1.1 continues and describes the visual inspection criteria in detail and acceptable flaw sizes. My question is in regard to the application of “uninterpretable discontinuities” in subsequent subsections.

Does the definition of uninterpretable discontinuities (pinholes, voids, and filler metal skips), less than 0.28 mm (0.015 in) apply to 6.6.1.1 only, or all of the subsequent sections of 6.6?

Response: Discontinuities with a major dimension of less than 0.38 mm [0.015 in], which are uninterpretable, are not considered defects.

AWS standards are prepared by AWS technical committees. Because many AWS standards are written in the form of codes or specification, they cannot present background material or discuss the committee’s intent.

The nature of inquiries directed to the American Welding Society and their technical committees have indicated that there are some requirements in AWS standards that are either difficult to understand or not sufficiently specific.

It should be recognized that the fundamental premise of AWS standards are to provide general stipulations applicable to any situation and to leave sufficient latitude for the exercise of engineering judgment. Another point to be recognized is that AWS standards represent the collective experience of AWS technical committees; and, while some provisions may seem overly conservative, they have been based on sound engineering practice.