AWS D15.1/D15.1M:2012-AMD1 Interpretation

Subject: Base Metal Thickness Limitations for Notch Toughness
Code Edition: D15.1:2012-AMD1 (Ed. 5)
Code Provision: Table 10.1 (44) and Table 10.2, note g
AWS Log: D15.1-12-I01

Inquiry: Per Table 10.2 note g, all groove welds qualify fillet welds base metal 1/8 in [3mm] and thicker but per Table 10.1 (44) the minimum thickness qualified is T or 5/8 in [16 mm] whichever is less, except if T is less than 1/4 in [6 mm] then the minimum base metal qualified is 1/8 in [3 mm].

Does Table 10.1 (44) override Table 10.2 note g?

Response: Yes, Table 10.1 (44) overrides Table 10.2, note g. Subclause 10.1 states that “When Notch Toughness is a requirement, the “Supplemental Essential Variables” shall also apply.”

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.