AWS D1.1 Interpretation

Subject: IIW Blocks
Code Edition: D1.1-90
Code Provision: Subsection 6.21.2.3
AWS Log: IR1-91-032-05

Inquiry: This inquiry covers Section 6, subsection 6.21.2.3 of AWS D1.1-90, Structural Welding Code—Steel. The use of the International Institute of Welding (IIW) reference block, Type 2, is discussed. We have found that using the Type 2 reference block for calibration doesn’t follow the Code. The Code states that there should be an indication at 4 in. and 8 in. on the CRT for a Type 2 block. Yet, when the Type 2 reference block is used, there isn’t an indication at 8 in. An 8-in. indication is not obtained because the signal travels in this fashion: the signal leaves the transducer, and attenuates out into the block.

Response: The calibration procedure referenced in 6.21.2.3 is correct as written. The 8-in. indication is attained from the two milled slots which are shown as the reference point for the 4-in. radius on the Type 2 IIW Blocks.