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American Water Works Association

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AWWA Standard

Field Welding of Steel Water Pipe

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Foreword

This foreword is for information only and is not a part of ANSI/AWWA C206.*

I. Introduction.

I.A. *Background.* The provisions of this standard describe the requirements for welding steel water pipe joints in water transmission and distribution lines. The purchaser for each project is responsible for determining if any unusual circumstances related to the project require additional provisions that are not included in the standard.

The design of field-welded joints is not discussed in this standard. Useful information on this subject may be found in AWWA Manual M11, *Steel Pipe—A Guide for Design and Installation*,† and in *Useful Information on the Design of Plate Structures* (American Iron and Steel Institute‡).

After the welded field joint has been completed, if the pipe has been coated or lined, the joint shall be coated and lined with a coating system compatible with that on the body of the pipe, in accordance with the requirements for field repairs stated in the appropriate AWWA coating or lining standard.

For lap-welded pipe with an inside diameter equal to or exceeding 48 in. (1,200 mm) and where the purchaser deems single welding to be acceptable, inside welding is recommended. Safety precautions shall be utilized in all pipe sizes, although when pipe with inside diameters less than 48 in. (1,200 mm), down to 27 in. (675 mm) is welded from the inside, additional safety precautions shall be observed. Interior welding on pipe diameters less than 27 in. (675 mm) is not recommended.

Pipe requiring inside welds with limited access should be supplied with 3-in. (75-mm) diameter weld lead pass holes at approximately 400-ft (122-m) centers to allow passage of welding leads to the joint location. Shorter distances between pass holes may be required, depending on actual project conditions. Pass holes in the pipe will permit shorter welding leads and thus avoid erratic voltage drops caused by excessively long welding leads. The pass hole is fabricated using a weldable-grade inside-threaded pipe half-coupling-welded to a hole cut through the pipe wall. After using the pass hole, a weldable-grade plug shall be threaded into the opening and seal-welded to secure.

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* American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036.

† AWWA Manual M11. Steel Pipe—A Guide for Design and Installation. Denver, CO: AWWA .

‡ *Useful Information on the Design of Plate Structures*, Steel Plate Engineering Data, Vol. 2, American Iron and Steel Institute, 1101 17th Street, NW, Suite 1300, Washington, DC 20036.