

ANSI/AWWA C205-18 (Revision of ANSI/AWWA C205-12)

AWWA Standard

Cement–Mortar Protective Lining and Coating for Steel Water Pipe–4 In. (100 mm) and Larger–Shop Applied

Effective date: Apr. 1, 2018. First edition approved by AWWA Board of Directors June 26, 1941. This edition approved Jan. 20, 2018. Approved by American National Standards Institute Oct. 25, 2017.





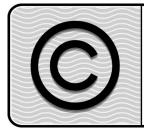
AWWA Standard

This document is an American Water Works Association (AWWA) standard. It is not a specification. AWWA standards describe minimum requirements and do not contain all of the engineering and administrative information normally contained in specifications. The AWWA standards usually contain options that must be evaluated by the user of the standard. Until each optional feature is specified by the user, the product or service is not fully defined. AWWA publication of a standard does not constitute endorsement of any product or product type, nor does AWWA test, certify, or approve any product. The use of AWWA standards is entirely voluntary. This standard does not supersede or take precedence over or displace any applicable law, regulation, or codes of any governmental authority. AWWA standards are intended to represent a consensus of the water industry that the product described will provide satisfactory service. When AWWA revises or withdraws this standard, an official notice of action will be placed in the Official Notice section of *Journal American Water Works Association*. The action becomes effective on the first day of the month following the month of *Journal AWWA* publication of the official notice.

American National Standard

An American National Standard implies a consensus of those substantially concerned with its scope and provisions. An American National Standard is intended as a guide to aid the manufacturer, the consumer, and the general public. The existence of an American National Standard does not in any respect preclude anyone, whether that person has approved the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standard. American National Standards are subject to periodic review, and users are cautioned to obtain the latest editions. Producers of goods made in conformity with an American National Standard are encouraged to state on their own responsibility in advertising and promotional materials or on tags or labels that the goods are produced in conformity with particular American National Standards.

CAUTION NOTICE: The American National Standards Institute (ANSI) approval date on the front cover of this standard indicates completion of the ANSI approval process. This American National Standard may be revised or withdrawn at any time. ANSI procedures require that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of publication. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036; (212) 642-4900, or e-mailing info@ansi.org.



This AWWA content is the product of thousands of hours of work by your fellow water professionals. Revenue from the sales of this AWWA material supports ongoing product development. Unauthorized distribution, either electronic or photocopied, is illegal and hinders AWWA's mission to support the water community.

ISBN-13, print: 978-1-62576-281-8

elSBN-13, electronic: 978-1-61300-464-7 DOI: http://dx.doi.org/10.12999/AWWA.C205.18

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information or retrieval system, except in the form of brief excerpts or quotations for review purposes, without the written permission of the publisher.

Copyright $\ensuremath{\mathbb{C}}$ 2018 by American Water Works Association Printed in USA

Committee Personnel

The Steel Water Pipe Manufacturers Technical Advisory Committee (SWPMTAC) Task Group on ANSI/AWWA C205, which revised this standard, had the following personnel at the time:

Henry H. Bardakjian, Chair

S.A. Arnaout, US Pipe, Dallas, Texas
H.H. Bardakjian, Consultant, Glendale, Calif.
R.J. Card, Manufacturing Consultant, Sugar Hill, Ga.
D.A. Dechant, Dechant Infrastructure Service, Aurora, Colo.
J. Forni, Jifco Inc., Livermore, Calif.
J.E. Hohider, Heitkamp Inc., Watertown, Conn.
B.D. Keil, Northwest Pipe Company, Draper, Utah
J.L. Luka, American SpiralWeld Pipe Company, Columbia, S.C.
L. McKinney, Womble Company, Houston, Texas
R.D. Mielke, Northwest Pipe Company, Raleigh, N.C.
J. Olmos, Ameron Water Transmission Group, Rancho Cucamonga, Calif.
B. Simpson, American SpiralWeld Pipe Company, Birmingham, Ala.
C.J. Walsh, W. Walsh Company, Attleboro, Mass.

The AWWA Standards Committee on Steel Pipe, which reviewed and approved this standard, had the following personnel at the time of approval:

John H. Bambei Jr., *Chair* Dennis A. Dechant, *Vice-Chair* John L. Luka, *Secretary*

General Interest Members

J.H. Bambei Jr., Bambei Engineering Services, Arvada, Colo.

W.R. Brunzell, Brunzell Associates Ltd., Skokie, Ill.

R.J. Card, Lockwood, Andrew & Newnam, Houston, Texas

R.L. Coffey, HDR Engineering Inc., Omaha, Neb.

S.N. Foellmi, Black & Veatch Corporation, Irvine, Calif.

R.L. Gibson, Freese and Nichols Inc., Fort Worth, Texas

M.D. Gossett,* HDR Engineering Inc., Denver, Colo.
M.B. Horsley,* Horsley Engineering LLC, Overland Park, Kan.
R. Issa,* AECOM, McKinney, Texas
R.A. Kufaas, Norske Corrosion & Inspection Services Ltd., Surrey, B.C., Canada
J.L. Mattson, Corrosion Control Technologies, Sandy, Utah
A. Murdock, CH2M, Salt Lake City, Utah
R. Ortega,* Aurora Technical Services, Houston, Texas
E.S. Ralph,[†] Standards Engineer Liaison, AWWA, Denver, Colo.
A.E. Romer, AECOM, Orange, Calif.
J.R. Snow, MWH Americas Inc., Denver, Colo.
W.R. Whidden, Woolpert, Orlando, Fla.

Producer Members

S.A. Arnaout, US Pipe, Dallas, Texas

H.R. Bardakjian, Consultant, Glendale, Calif.

D.A. Dechant, Dechant Infrastructure Service, Aurora, Colo.

V. DeGrande,* Ameron Water Transmission Group, Rancho Cucamonga, Calif.

W.B. Geyer, Steel Plate Fabricators Associates, Lake Zurich, Ill.

B.D. Keil, Northwest Pipe Company, Draper, Utah

J.L. Luka, American SpiralWeld Pipe Company, Columbia, S.C.

R. Mielke,* Northwest Pipe Company, Raleigh, N.C.

J. Olmos, Ameron Water Transmission Group, Rancho Cucamonga, Calif.

G.F. Ruchti,* Consultant, Punta Gorda, Fla.

B.P. Simpson,* American Cast Iron Pipe Company, Birmingham, Ala.

C.C. Sundberg, Victaulic, Issaquah, Wash.

D. Walker, Avid Protective Products LTD/Tnemec Company, Oakville, Ont., Canada

User Members

L. Adams, US Bureau of Reclamation, Denver, Colo.

G.A. Andersen, New York City Bureau of Water Supply, Little Neck, N.Y.

B. Cheng, Metro Vancouver, Burnaby, B.C., Canada

M.E. Conner, San Diego County Water Authority, San Diego, Calif.

* Alternate

† Liaison, nonvoting

M. Garcia,* Standards Council Liaison, Denver Water, Denver, Colo.

S. Hattan, Tarrant Regional Water District, Fort Worth, Texas

T.J. Jordan,[†] Metropolitan Water District of Southern California, La Verne, Calif.

P.K. Karna, Tacoma Water, Tacoma, Wash.

K.R. Parbhoo, Los Angeles Department of Water and Power, Los Angeles, Calif.

T. Peng, Metropolitan Water District of Southern California, Los Angeles, Calif.

M. Turney,[†] Denver Water, Denver, Colo.

^{*} Liaison, nonvoting

[†] Alternate