



**American Water Works
Association**

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ANSI/AWWA G200-15
(Revision of ANSI/AWWA G200-09)

AWWA Management Standard



Distribution Systems Operation and Management

Effective date: May 1, 2015.

First edition approved by AWWA Board of Directors June 14, 2009.

This edition approved Jan. 24, 2015.

Approved by American National Standards Institute Jan. 28, 2015.



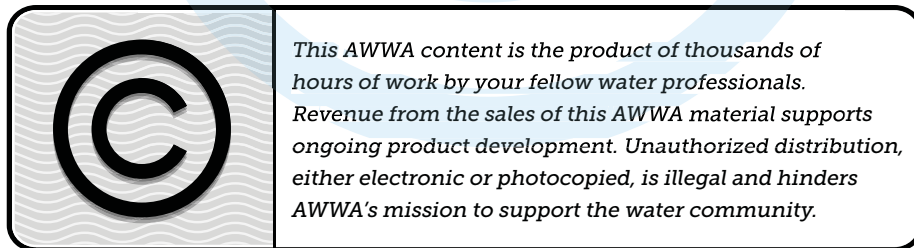
AWWA Standard

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ISBN-13, print: 978-1-62576-076-0

eISBN-13, electronic: 978-1-61300-330-5

DOI: <http://dx.doi.org/10.12999/AWWA.G200.15>

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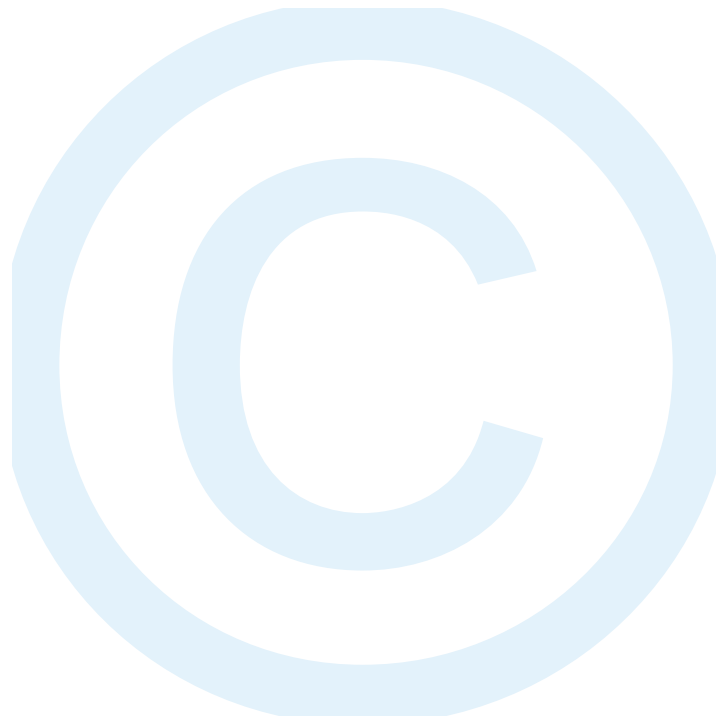
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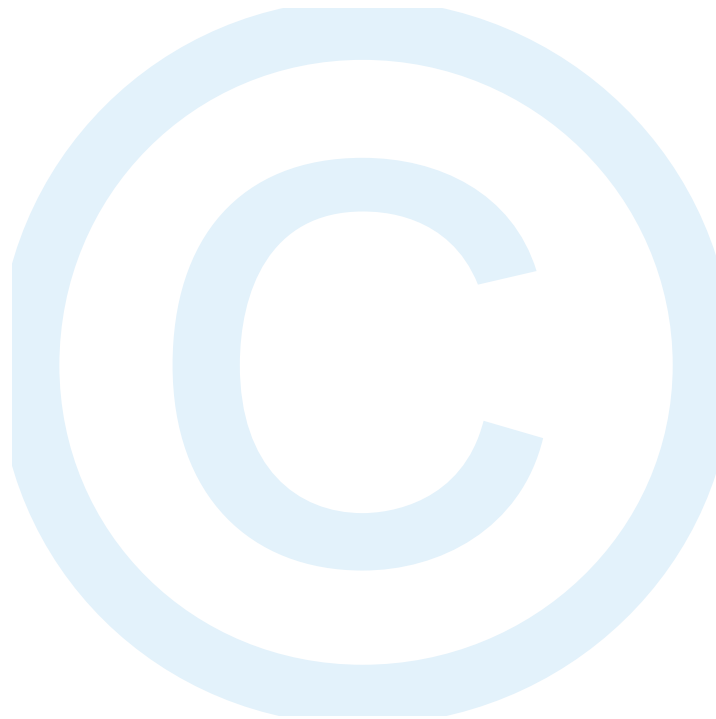


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Foreword

This foreword is for information only and is not a part of ANSI/AWWA G200.*

I. Introduction.

I.A. *Background.* The AWWA standards program is designed to serve water, wastewater, and reclaimed water utilities—hereafter referred to as the water sector—their customers, owners, service providers, and government regulators. The standards developed under the program are generally intended to improve a utility's overall operations and service. Among the standards is a specific effort to establish formal management and operations guidelines. These guidelines identify the appropriate practices, procedures, and behaviors whose implementation will promote effective and efficient utility operations and contribute to protection of public health, public safety, and the environment.

AWWA's standards process has been used for more than 90 years to produce ANSI-accredited standards for materials and processes that are used by the water and wastewater utility industries. These standards are recognized worldwide and have been adopted by many utilities and organizations. Likewise, these performance standards are developed using the same ANSI-recognized formal approval process. Volunteer standards committees establish standard practices in a uniform and appropriate format.

Formal standards committees have been and continue to be formed to address the individual standards practices for the diverse areas of water sector operation. A formal standards committee was created in 2009 to develop standards for distribution systems operation and management, water treatment plant operations, and source water management. This standard is the outcome of the Distribution Systems Operation and Management Standards Committee.

I.B. *History.* The first edition of this standard was approved by the AWWA Board of Directors on June 14, 2009. This second edition was approved on Jan. 24, 2015.

I.C. *Acceptance.* In May 1985, the US Environmental Protection Agency (USEPA) entered into a cooperative agreement with a consortium led by NSF International (NSF[†]) to develop voluntary third-party consensus standards and a certification program for direct and indirect drinking water additives. Other members of the original consortium included the Water Research Foundation (formerly AwwaRF) and the Conference of State Health and Environmental Managers (COSHEM). The

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

† NSF International, 789 North Dixboro Road, Ann Arbor, MI 48105.

American Water Works Association (AWWA) and the Association of State Drinking Water Administrators (ASDWA) joined later.

In the United States, authority to regulate products for use in, or in contact with, drinking water rests with individual states.* Local agencies may choose to impose requirements more stringent than those required by the state. To evaluate the health effects of products and drinking water additives from such products, state and local agencies may use various references, including

1. An advisory program formerly administered by USEPA, Office of Drinking Water, discontinued on Apr. 7, 1990.
2. Specific policies of the state or local agency.
3. Two standards developed under the direction of NSF: NSF/ANSI 60, Drinking Water Treatment Chemicals—Health Effects, and NSF/ANSI 61, Drinking Water System Components—Health Effects.
4. Other references, including AWWA standards, *Food Chemicals Codex*, *Water Chemicals Codex*[†], and other standards considered appropriate by the state or local agency.

Various certification organizations may be involved in certifying products in accordance with NSF/ANSI 61. Individual states or local agencies have authority to accept or accredit certification organizations within their jurisdictions. Accreditation of certification organizations may vary from jurisdiction to jurisdiction.

Annex A, “Toxicology Review and Evaluation Procedures,” to NSF/ANSI 61 does not stipulate a maximum allowable level (MAL) of a contaminant for substances not regulated by a USEPA final maximum contaminant level (MCL). The MALs of an unspecified list of “unregulated contaminants” are based on toxicity testing guidelines (noncarcinogens) and risk characterization methodology (carcinogens). Use of Annex A procedures may not always be identical, depending on the certifier.

ANSI/AWWA G200 does not address additives requirements. Thus, users of this standard should consult the appropriate state or local agency having jurisdiction in order to

1. Determine additives requirements, including applicable standards.
2. Determine the status of certifications by parties offering to certify products for contact with, or treatment of, drinking water.
3. Determine current information on product certification.

* Persons outside the United States should contact the appropriate authority having jurisdiction.

† Both publications available from National Academy of Sciences, 500 Fifth Street, NW, Washington, DC 20001.

II. Special Issues.

II.A. *Advisory Information on Application of Standards.* This standard includes only those requirements that are limited exclusively to the operation and management of the drinking water distribution system. Separate standards will cover utility programs such as safety, emergency preparedness and security, financial management, water treatment, source water protection, and business systems.

II.B. *Consecutive Systems.* Many times consecutive systems that purchase water from others have very little control over water quality issues such as disinfection by-products.

III. Use of This Standard. It is the responsibility of the user of an AWWA standard to determine that the products described in that standard are suitable for use in the particular application being considered.

III.A. *Options and Alternatives.* The following items should be provided by the purchaser.

1. Standard used—that is, ANSI/AWWA G200, Distribution Systems Operation and Management, of latest revision.
2. Whether compliance with NSF/ANSI 61, Drinking Water System Components—Health Effects, is required.
3. Details of other federal, state or provincial, and local requirements (Sec. 4.1.1).

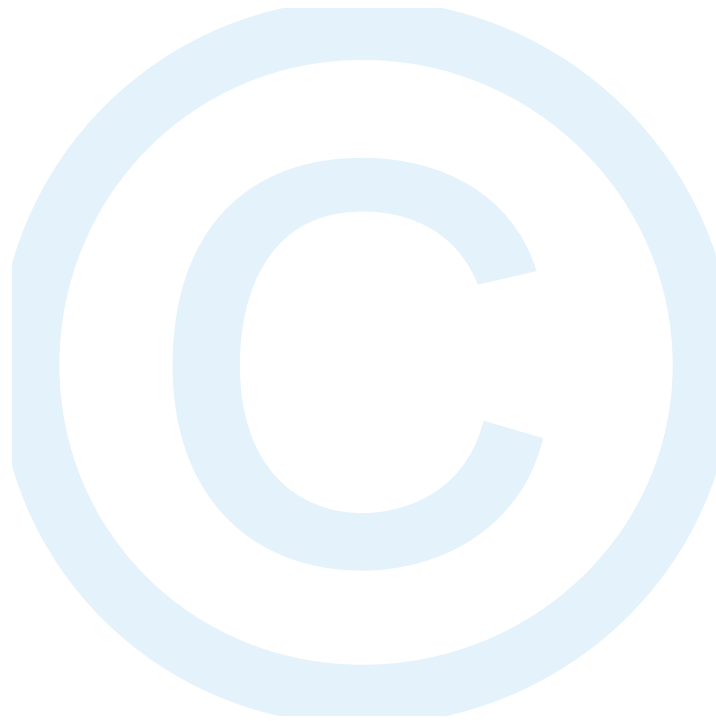
III.B. *Modification to Standard.* Any modification to the provisions, definitions, or terminology in this standard must be provided in the purchaser's specifications.

IV. Major Revisions. Major changes made to the standard in this revision include the following:

1. Repair and replacement programs were extended to include mains, service lines, valves, fire hydrants, storage facilities, pump stations, and meters.
2. Taste and odor sections were consolidated.
3. Requirements for a pressure response plan and procedures were added.
4. Visual inspections were added as a minimum requirement for a corrosion monitoring program.
5. Permeation requirements were included in this standard.

V. Comments. If you have any comments or questions about this standard, please contact AWWA Engineering and Technical Services at 303.794.7711, FAX at 303.795.7603; write to the department at 6666 West Quincy Avenue, Denver, CO 80235-3098; or email at standards@awwa.org.

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Distribution Systems Operation and Management

SECTION 1: GENERAL

Sec. 1.1 Scope

This standard describes the critical requirements for the effective operation and management of drinking water distribution systems.

Sec. 1.2 Purpose

The purpose of this standard is to define the critical requirements for the operation and management of water distribution systems, including maintaining water quality, system management programs, and operation and maintenance of facilities.

Sec. 1.3 Application

This standard can be referenced in the evaluation of distribution systems operation and management. The stipulations of this standard apply when this document has been referenced and then only to the operation and management of distribution systems.