



**American Water Works
Association**

The Authoritative Resource on Safe Water®

ANSI/AWWA G200-09
(Revision of ANSI/AWWA G200-04)

AWWA Standard

Distribution Systems Operation and Management



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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 and wastewater utilities, 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. The use of standards establishes uniform performance measures and promotes industry self-regulation. Within the standards program 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 ninety 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.

The AWWA Executive Committee and the AWWA Board of Directors approved the vision and conceptual structure for the development of this series of performance standards.

Technical workgroups began the standards development process by identifying best practices for distribution systems operation and management, water treatment, and source water management. Formal standards committees were then formed during the first quarter of 2001 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 committee.

AWWA used the work of the earlier technical workgroups and initial management standards to establish a series of utility management standards designed to cover the principal activities of a typical water and/or wastewater utility. Subsequent committees

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

were established to develop additional standards, including topics such as overall utility management, business practices, customer relations and communications, security practices, emergency preparedness, and wastewater operations.

I.B. *History.* The first edition of this standard was approved by the AWWA Board of Directors on Jan. 18, 2004. This second edition was approved June 14, 2009.

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 American Water Works Association Research Foundation (AwwaRF) and the Conference of State Health and Environmental Managers (COSHEM). The 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 jurisdiction. Accreditation of certification organizations may vary from jurisdiction to jurisdiction.

* NSF International, 789 N. Dixboro Road, Ann Arbor, MI 48105.

† 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.

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.

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.

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.

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. Added requirements for valve-exercising program and hydrant maintenance program.
2. Clarified flow requirements and corrective action plan.
3. Added Self-Assessment and Internal Auditing requirements.

V. Comments. If you have any comments or questions about this standard, please call the AWWA Volunteer and Technical Support Group at 303.794.7711, FAX at 303.795.7603, write to the group at 6666 West Quincy Avenue, Denver, CO 80235-3098, or e-mail the group at standards@awwa.org.



**American Water Works
Association**

AWWA Standard

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.