



**American Water Works
Association**

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ANSI/AWWA G100-17
(Revision of ANSI/AWWA G100-11)

AWWA Management Standard



Water Treatment Plant Operation and Management

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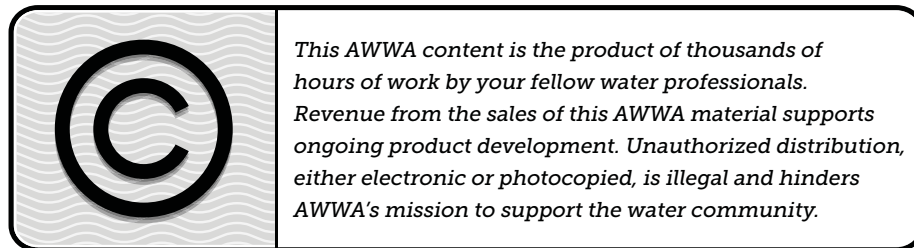
AWWA Standard

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Committee Personnel

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

Sarah C. Clark, *Chair*

General Interest Members

J.M. Assouline, CH2M, Englewood, Colo.	(AWWA)
S.C. Clark, HDR Engineering Inc., Denver, Colo.	(AWWA)
D.M. Flancher,* AWWA Staff Engineer Liaison, Denver, Colo.	(AWWA)
S.A. Hubbs, Louisville, Ky.	(AWWA)
R.D. Joost, Carollo Engineers PC, Phoenix, Ariz.	(AWWA)
R.J. Mahmood, California State University–Sacramento, Sacramento, Calif.	(AWWA)
E.C. Nieminski, Utah Division of Drinking Water, Salt Lake City, Utah	(AWWA)
N.G. Pizzi, Aqua Serv Consultants, Aurora, Ohio	(AWWA)
D.S. Schwartz,* City of Waynesboro, Waynesboro, Va.	(AWWA)
M.A. Waer, Nanostone Water, Inc., Phoenix, Ariz.	(AWWA)
R.F. Willis, RH2 Engineering, Portland, Ore.	(AWWA)

User Members

M.G. Barsotti, Champlain Water District, South Burlington, Vt.	(AWWA)
R.C. Cheng, Coachella Valley Water District, Coachella, Calif.	(AWWA)
S. Estes-Smargiassi, Massachusetts Water Resources Authority, Boston, Mass.	(AWWA)
A. Knowles, Halifax Water, Lower Sackville, N.S., Canada	(AWWA)
T.A. Pajor, City of Wichita, Wichita, Kan.	(AWWA)
D.W. Peters, City of Portland Water Bureau, Portland, Ore.	(AWWA)
C. Raghav, United Water, Paramus, N.J.	(AWWA)
B. Thompson, Anne Arundel County, Millersville, Md.	(AWWA)
A.J. Weiss, Onondaga County Water Authority, Syracuse, N.Y.	(AWWA)
Y. Wang, City of Houston, Houston, Texas	(AWWA)

* Liaison, nonvoting

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Foreword

This foreword is for information only and is not a part of ANSI/AWWA G100.*

I. Introduction.

I.A. *Background.* The AWWA utility management standards are designed to serve water, wastewater, and reuse utilities—hereafter, the water sector—and 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. One aspect of the standards program is an effort to establish formal management and operations guidelines. These guidelines identify appropriate practices, procedures, and behaviors, the implementation of which 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 American National Standards Institute (ANSI)–approved standards for materials and processes that are used by the water sector. These standards are recognized worldwide and have been adopted by many utilities and organizations. Likewise, this performance standard is developed using the same ANSI-recognized formal 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 2001 to develop standards for distribution system operation and management, water treatment plant operation and management, and source water management. This standard is the outcome of the Water Treatment Plant Operation and Management Standards Committee.

I.B. *History.* The first edition of this standard was approved by the AWWA Board of Directors on Jan. 16, 2005. The second edition was approved on June 12, 2011. This edition was approved on Jan. 14, 2017.

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)

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

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. Specific policies of the state or local agency.
2. 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.
3. 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 G100 does not address additives requirements. 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.

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

‡ 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 those requirements that are limited exclusively to the operation and management of drinking water treatment plants. Separate standards cover utility programs such as safety, emergency preparedness and security, financial management, distribution system management, 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. *Purchaser Options and Alternatives.* The following information should be provided by the purchaser:

1. Standard used—that is, ANSI/AWWA G100, Water Treatment Plant 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 and provincial, or local requirements (Sec. 4.1).

III.B. *Modification to Standard.* There is no applicable information for this section.

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

1. Sec. 4.2.3, Treatment Plant Adequacy of Treated Supply, was modified from “shall” to “should,” creating a recommendation for continuous improvement as opposed to a requirement.
2. Requirements for an instrument and electronic device maintenance program were added in Sec. 4.3.4.3.

V. Comments. If you have any comments or questions about this standard, please call 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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Water Treatment Plant 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 treatment plants.

Sec. 1.2 Purpose

The purpose of this standard is to define the critical requirements for the operation and management of water treatment plants, 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 water treatment plant operation and management. The stipulations of this standard apply when this document has been referenced and only to the operation and management of water treatment plants.