



**American Water Works
Association**

The Authoritative Resource on Safe WaterSM

ANSI/AWWA G100-05
(First Edition)

AWWA Standard

Water Treatment Plant Operation and Management



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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 accreditation program is designed to serve water and wastewater utilities and their customers, owners, and government regulators. Accreditation improves a water utility's service quality and management efficiency by establishing formal standards and performing independent audits to verify conformance. Accreditation establishes uniform performance standards and promotes industry self-regulation. It also develops standards for water and wastewater utility operation and management (and the policies for applying the standards) that are used as a basis for conferring accreditation.

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 for the water utility industry. These standards are recognized worldwide and have been adopted by many utilities and organizations. Accreditation standards are developed using the same, ANSI-recognized, formal process. Volunteer standards committees establish standard practices in a uniform and appropriate format. Formal approval procedures are used to develop recognized standards. This standard is one of a series that may be adopted for use in the AWWA water and wastewater utility accreditation program.

Technical work groups began the standards development process by identifying best practices for distribution system 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 system operation and management, water treatment plant operations and management, and source water management. This standard is the outcome of the water treatment plant operation and management committee.

I.B. *History.* This standard was approved by the AWWA Board of Directors on Jan. 16, 2005.

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 all 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.

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.

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

†NSF International, 789 N. Dixboro Rd., Ann Arbor, MI 48105.

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

§Both publications available from National Academy of Sciences, 500 Fifth Street, N.W., Washington, DC 20418.

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.

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 drinking water treatment plants. Separate standards will 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.* There is no applicable information for this section.

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

IV. **Major Revisions.** This is the first edition—as such, there are no major revisions.

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 303.795.7603, write to the group at 6666 West Quincy Avenue, Denver, CO 80235-3098, or e-mail at standards@awwa.org.

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AWWA Standard

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 for accreditation. The stipulations of this standard apply when this document has been referenced and only to the operation and management of water treatment plants.