

ANSI/AWWA **C671-21**
(Revision of ANSI/AWWA C671-16)

AWWA Standard

Online Turbiditymeter Operation and Maintenance

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American Water Works
Association



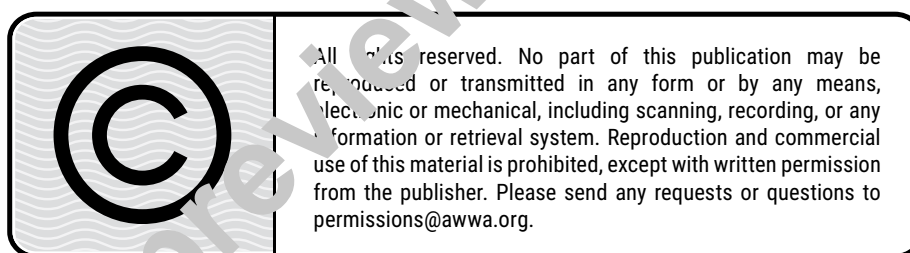
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Foreword

This foreword is for information only and is not a part of ANSI/AWWA C671.

I. Introduction.

I.A. *Background.* This standard describes online turbidimeter operation and maintenance for online turbidimeters used in the treatment and monitoring of municipal water supplies or in the treatment of municipal wastewater effluent or reuse applications.

I.B. *History.* Over the past decade, significant advancements in turbidity measurement have been observed. Although today's instruments meet the same basic requirements of nephelometers, improvements in advanced electronics, ratio algorithms, techniques to eliminate stray light interference, and software have produced modern measurement technologies that are far more accurate and stable. In addition, the new designs may have a greater dynamic range, can be used to measure samples with more complex matrices, and may help minimize the effects of typical interferences.

The selection of the best turbidity instrument design will depend on the specific water quality. Sample composition and process requirements typically dictate the type of technology to be used. Water samples with high levels of dissolved color or absorbance may require a long wavelength (in the 830–870 nm range) or ratio measurement. For membrane filtration effluent monitoring and granular media filter effluent monitoring, instruments that both comply with regulatory monitoring requirements and have the highest accuracy and precision at low-turbidity levels should be used (e.g., a laser nephelometer).

The AWWA Standards Council approved the formation of a committee to create a standard for online instrument operation and maintenance during its March 2006 meeting. A chair for the new Online Monitoring Committee was selected in August 2006, and the committee held its first meeting at the Water Quality and Technology Conference in Denver, Colo., in November 2006.

The first edition of ANSI/AWWA Standard C671 was approved by the AWWA Board of Directors on Jan. 16, 2016. This edition was approved on March 30, 2021.

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

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