



Standard Practice for Writing Quality Control Specifications for Standard Test Methods for Water Analysis¹

This standard is issued under the fixed designation D 5847; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice provides specific, mandatory requirements for incorporating quality control (QC) procedures into all test methods under the jurisdiction of Committee D-19.

1.2 ASTM has adopted the following:

Policy on implementation of requirements for a quality control section in standard test methods generated by Committee D-19 on Water.

GENERAL—By July 29, 1998, or at the next reapproval or revision, whichever is later, every D-19 Standard Test Method shall contain a QC section that is in full compliance with the requirements of this practice.

NEW COLLABORATIVE TESTING—As of July 29, 1998, each collaborative study design shall include a QC section as part of the method to be tested. Prior to approval of the study design, the Results Advisor shall ascertain the appropriateness of the QC section in meeting the requirements of this Practice and Practice D-2777, and shall advise the designer of the study of any changes needed to fulfill the requirements of these practices. Before a collaborative study may be conducted, approval of the study design by the Results Advisor must be obtained.

OLDER VALIDATED METHODS—Standard test methods that were validated using D-2777-77, D-2777-86, or D-2777-94, when balloted for reapproval or revision, shall contain a QC section based upon the best information from the historical record. Where appropriate, information derived from the record of the collaborative study shall be utilized for this purpose. The introduction of the QC section into these standard test methods shall not be construed as a requirement for a new collaborative study, though the Subcommittee may opt for such a study. Any information available regarding QC or precision/bias testing shall be included in the appropriate sections of the published method.

1.3 Required QC sections in all applicable test methods are intended to achieve two goals. First, users of Committee D-19 test methods will be able to demonstrate a minimum competency in the performance of these test methods by comparison with collaborative study data. Second, all users of test methods will be required to perform a minimum level of QC as part of proper implementation of these test methods to ensure ongoing competency.

1.4 This practice contains the primary requirements for QC of a specific test method. In many cases, it may be desirable to implement additional QC requirements to assure the desired quality of data.

1.5 The specific requirements in this practice may not be applicable to all test methods. These requirements may vary depending on the type of test method used as well as the analyte being determined and the sample matrix being analyzed. See Explanation 1 in Appendix X1.

1.5.1 If there are compelling reasons why any of the specific QC requirements listed in this practice are not applicable to a specific test method, these reasons must be documented in the QC section of the test method.

1.5.2 With the approval of Committee D-19 on the recommendation of the D-19 Results Advisor and the Technical Operations section of the Executive Subcommittee, a statement giving the compelling reasons why compliance with all or specific points of this practice cannot be achieved will meet the requirements of both ASTM and this practice.

1.5.3 Test Methods developed prior to the approval of this practice with a QC Section that meet the requirements of Specification D 5789 are considered in compliance with this Practice.

1.6 This practice is for use with quantitative methods and may not be applicable to qualitative test methods.

1.7 Presently, this practice is applicable primarily to chemical test methods. It is intended that, in future revisions, the practice will be expanded to include other methods such as microbiological methods.

2. Referenced Documents

2.1 ASTM Standards:

D 1129 Terminology Relating to Water²

D 1193 Specification for Reagent Water²

D 2777 Practice for Determination of Precision and Bias of Applicable Methods of Committee D-19 on Water²

D 3648 Practices for the Measurement of Radioactivity³

¹ This practice is under the jurisdiction of ASTM Committee D19 on Water and is the direct responsibility of Subcommittee D19.02 on General Specifications, Technical Resources and Statistical Methods.

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² *Annual Book of ASTM Standards*, Vol 11.01.

³ *Annual Book of ASTM Standards*, Vol 11.02.

