



Standard Practice for Water Conservation in Buildings Through In-Situ Water Reclamation¹

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1. Scope

1.1 In an effort to help meet growing demands being placed on available water supplies and water treatment facilities, many communities throughout the United States and the world are turning to water reclamation and reuse. Water reclamation and reuse offer an effective means of conserving the Earth's limited high-quality freshwater supplies while helping to meet the ever growing demands for water in residential, commercial, and institutional development. This practice sets forth a practice for water reuse in buildings and related construction, encompassing both graywater and blackwater in-situ reclamation.

1.1.1 This practice specifies parameters for substituting reclaimed water in place of potable water supplies where potable water quality is not required.

1.1.2 This practice specifies limitations for use of reclaimed water in-situ. It is not intended for application to the use of reclaimed water delivered from an offsite municipal wastewater treatment facility.

1.1.3 This practice specifies performance requirements for in-situ reclaimed water systems. It does not specify particular technology(ies) that must be used. A variety of technologies may satisfy the performance requirements.

1.1.4 This practice specifies requirements for water stewardship associated with in-situ water reuse. Consistent with Guide E2432 and for purposes of this practice, water stewardship includes both quantity and quality impacts on water used in buildings.

1.2 Implementation of this practice will require professional judgment. Such judgment should be informed by experience with sustainable development, including environmental, economic, and social issues as appropriate to the building use, type, scale, and location.

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical

conversions to SI units that are provided for information only and are not considered standard.

1.3.1 *Exception*—Solely SI units are used in Table 1, Table X3.1, and Table X4.1.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

- D888 Test Methods for Dissolved Oxygen in Water
- D1253 Test Method for Residual Chlorine in Water
- D4188 Practice for Performing Pressure In-Line Coagulation-Flocculation-Filtration Test in Water
- D4840 Guide for Sample Chain-of-Custody Procedures
- D5128 Test Method for On-Line pH Measurement of Water of Low Conductivity
- D5244 Practice for Recovery of Enteroviruses from Waters (Withdrawn 2013)³
- D5464 Test Method for pH Measurement of Water of Low Conductivity
- D5907 Test Methods for Filterable Matter (Total Dissolved Solids) and Nonfilterable Matter (Total Suspended Solids) in Water
- D6238 Test Method for Total Oxygen Demand in Water
- D6569 Test Method for On-Line Measurement of pH
- D6698 Test Method for On-Line Measurement of Turbidity Below 5 NTU in Water
- D6734 Test Method for Low Levels of Coliphages in Water
- E631 Terminology of Building Constructions
- E2114 Terminology for Sustainability Relative to the Performance of Buildings
- E2432 Guide for General Principles of Sustainability Relative to Buildings

¹ This practice is under the jurisdiction of ASTM Committee E60 on Sustainability and is the direct responsibility of Subcommittee E60.07 on Water Use and Conservation.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.