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Standard Guide for Water Analysis for Electrodialysis/Electrodialysis Reversal Applications¹

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1. Scope

1.1 This guide covers the determinations that should be performed on any given water if processing by electrodialysis/electrodialysis reversal is being considered.

1.2 This guide is applicable to all waters but is not necessarily complete for wastewaters.

1.3 This is a guide only and should not be construed as a complete delineation of all analysis required for a specific application.

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

D511 Test Methods for Calcium and Magnesium in Water

D512 Test Methods for Chloride Ion in Water

D516 Test Method for Sulfate Ion in Water

D857 Test Method for Aluminum in Water

D858 Test Methods for Manganese in Water

D1067 Test Methods for Acidity or Alkalinity of Water

D1068 Test Methods for Iron in Water

D1125 Test Methods for Electrical Conductivity and Resistivity of Water

D1129 Terminology Relating to Water

D1179 Test Methods for Fluoride Ion in Water

D1253 Test Method for Residual Chlorine in Water

D1293 Test Methods for pH of Water

D1889 Test Method for Turbidity of Water (Withdrawn 2007)³

D2579 Test Method for Total Organic Carbon in Water (Withdrawn 2002)³

D3352 Test Method for Strontium Ion in Brackish Water, Seawater, and Brines

D3370 Practices for Sampling Water from Closed Conduits

D3561 Test Method for Lithium, Potassium, and Sodium Ions in Brackish Water, Seawater, and Brines by Atomic Absorption Spectrophotometry

D3867 Test Methods for Nitrite-Nitrate in Water

D3920 Test Method for Strontium in Water

D4189 Test Method for Silt Density Index (SDI) of Water

D4191 Test Method for Sodium in Water by Atomic Absorption Spectrophotometry

D4192 Test Method for Potassium in Water by Atomic Absorption Spectrophotometry

D4327 Test Method for Anions in Water by Suppressed Ion Chromatography

¹ This guide is under the jurisdiction of ASTM Committee D19 on Water and is the direct responsibility of Subcommittee D19.08 on Membranes and Ion Exchange Materials.

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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.