

LIST OF COMMITTEE D19 DISCONTINUED AND SUPERSEDED STANDARDS

D 514–85 (1989), Test Method for Hydroxide Ion in Water. This test method covers the volumetric determination of free hydroxide ion in water. This test method was discontinued in 1996.

D 992–71 (1978), Test Method for Nitrate Ion in Water. This test method covers the determination of nitrate ion in water. This test method was discontinued in 1984 and replaced by Test Method D 3867, Test Methods for Nitrite-Nitrate in Water. This test method was discontinued in 1984.

D 993–58 (1982)^{e1}, Test Methods for Sulfate-Reducing Bacteria in Water and Water-Formed Deposits. These methods cover the detection of the presence of sulfate-reducing bacteria when present in deposits or water samples and the estimation of the number of bacteria present. These methods were discontinued in 1987 and replaced by Test Methods D 4412, Test Methods for Sulfate-Reducing Bacteria in Water and Water-Formed Deposits.

D 1128–60 (1974), Method for Identification of Types of Microorganisms and Microscopic Matter in Water and Waste Water. This method covers the procedure for identification by microscopical examination of bacterial cells, mold filaments, algae, protozoa and other small animals, and such particles of inert material as may be found in water and wastewater. This method was discontinued in 1982.

D 1254–67 (1974), Test Methods for Nitrite Ion in Water. These test methods cover the determination of nitrite ion in water. Two methods are given as follows: Method A (Colorimetric Method) and Method B (Volumetric Method). These test methods were discontinued in 1981.

D 1339–84, Test Methods for Sulfite Ion in Water. These test methods cover the volumetric determination of sulfite ion in water. These test methods were discontinued in 1990.

D 1427–68 (1974), Test Methods for Residual Chlorine in Waste Water. These test methods cover procedures for the determination of residual chlorine in wastewater. These test methods were discontinued in 1982 and replaced by Test Methods D 1253, Test Method for Residual Chlorine in Water.

D 1428–82^{e1}, Test Methods for Sodium and Potassium in Water and Water-Formed Deposits by Flame Photometry. These test methods cover the determination of sodium and potassium in water and water-formed deposits using direct measuring-type flame photometers. These test methods were discontinued in 1990.

D 1588–60 (1974), Test Methods for Dissolved and Gaseous Hydrogen in Water. These test methods cover the collection and measurement of dissolved and gaseous hydrogen in water. These test methods were discontinued in 1984.

D 1589–80, Test Methods for Dissolved Oxygen in Waste Water. These test methods cover the determination of dissolved oxygen in waste water in the presence of certain interfering substances. Common interfering substances which may occur in such water are nitrites, ferrous iron, organic material, sulfites, or other oxidizing or reducing substances. Provisions incorporated in this method will, in most cases, lessen the interference of such substances in the determination of dissolved oxygen. These test methods were discontinued in 1981 and replaced by ASTM Methods D 888, Test Methods for Dissolved Oxygen in Water.

D 1590–60 (1977)^{e2}, Test Method for Surface Tension of Water. This test method covers quantitative measurement of the surface tension of water and waste water. The test method is based on instrumental measurement by the ring method and offers the most precise and accurate determination. This test method was discontinued in 1995.

D 1690–73, Test Method for Gamma Radioactivity of Water. This test method covers the measurement of gamma radioactivity of water. It is applicable to gamma emitters in the energy range above 0.1 MeV and in the concentration range of 10^{-2} to 10^{-5} $\mu\text{Ci/mL}$ of radioactively homogeneous water. This test method was discontinued in 1981.

D 1888–78^{e2}, Test Methods for Particulate and Dissolved Matter, Solids, or Residue in Water. These test methods cover the determination of particulate, dissolved, and total matter, sometimes referred to as the suspended, dissolved, and total solids, in water. These test methods were discontinued in 1991.

D 1942–80^{e1}, Test Method for Morpholine in Water. This test method covers a colorimetric procedure for the determination of morpholine in boiler feedwater and steam condensate. This test method was discontinued in 1990 and replaced by Test Method D 4983 for Cyclohexylamine, Morpholine, and Diethylaminoethanol in Water and Condensed Steam by Direct Aqueous Injection Gas Chromatography.

D 2032–68 (1982)^{e1}, Specification for Deuterium Oxide. This specification covers minimum requirements for deuterium oxide (D_2O) to be used as a moderator in heavy water moderated reactors. This specification was discontinued in 1988.

D 2033–73 (1979), Test Method for Consumption of Potassium Permanganate by Impurities in Deuterium Oxide. This test method covers a titrimetric measurement of the consumption of potassium permanganate by impurities in deuterium oxide. It is one of the required methods intended for use in

establishing whether the deuterium oxide is of sufficient purity to meet specifications. This test method was discontinued in 1988.

D 2034–68 (1975), Method for Open Channel Flow Measurement of Water and Waste Water by Weirs. This method covers the measurement of the rate of flow of water and waste water in open channels or streams at or near the ground surface using the triangular (V-notch), rectangular and trapezoidal type weirs having end and bottom contractions. This method was discontinued in 1984.

D 2037–68 (1973), Test Method for Evaluating Toxicity of Waters to Diatoms. This is a nonreferee batch method for evaluating the inhibitory toxicity of wastewaters to diatoms. It can be performed with standard reference water and reference chemicals, and provides information on the toxicity of a sample under prescribed experimental conditions. It is not intended to be a measure of acute toxicity for aquatic life. This test method was discontinued in 1981.

D 2038–83, Test Method for Radioactive Barium in Water. This test method covers the measurement of radioactive barium contained in water in concentrations above 10^{-7} Ci/L. This test method was discontinued in 1989.

D 2039–83, Test Method for Radioactive Manganese in Water. This method covers the measurement of radioactive manganese in water in concentrations above 10^{-3} μ Ci/L (37 disintegrations/s L). It is limited to the manganese radioisotopes of masses 54 and 56. This method was discontinued in 1988.

D 2184–81, Method of Testing Deuterium Oxide. This method covers the measurement of the isotopic composition of hydrogen in deuterium oxide (heavy water) which is nominally 99.75 atom percent deuterium (*D*), equal to $D/(D + H) \times 100$. The primary use of the heavy water is as a moderator in production, power, or research reactors in which a fissionable nuclide is consumed. In such reactors the percentage of deuterium in the heavy water usually exceeds 95 %. This method was discontinued in 1988.

D 2327–80^{e1}, Test Method for Mono- and Dioctadecylamines in Water. This test method covers a colorimetric procedure for the determination of octadecylamine and dioctadecylamine in steam or steam condensate. This test method was discontinued in 1990 and replaced by Test Method D 4983 for Cyclohexylamine, Morpholine, and Diethylaminoethanol in Water and Condensed Steam by Direct Aqueous Injection Gas Chromatography.

D 2333–80, Test Method for Thorium in Water. This method covers a colorimetric determination of microgram amounts of thorium in water and waste water. It is sensitive to less than 1×10^{-9} g of thorium in 1 g of water. This method was discontinued in 1988.

D 2334–88^{e1}, Test Methods for Radioactive Iodine in Water. These test methods cover the determination of radioactive iodine in water in concentrations greater than 100 pCi/L. Concentration of the sample can increase the sensitivity of the test methods. Procedures for heterogeneous exchange, distillation, and solvent extraction are included. These test methods were discontinued in 1992.

D 2458–69 (1975), Method of Flow Measurement of Water by the Venturi Meter Tube. This method covers the measurement of the rate of flow of water in pipelines using the Herschel Standard Venturi meter tube. This method was discontinued in 1983.

D 2459–72 (1981)^{e1}, Test Method for Gamma Spectrometry of Water. This method covers the measurement by means of gamma spectrometry of gamma radioactivity of water. It is applicable to nuclides emitting gamma rays with energies greater than 0.1 MeV. The count rate of the sample to be counted should be in the range from 10^5 counts per minute to twice the background count rate. This method was discontinued in 1988.

D 2461–69 (1982), Test Method for Iron-59 in Water. This method covers the measurement of radioactive iron contained in water in concentrations above 0.1 μ Ci/L. It is limited by choice of radiation detector to the iron radioisotope of mass 59 produced in nuclear reactors and which may also be used as a tracer. Modifications in the analytical method are included for measurement at higher and lower concentrations. This method was discontinued in 1988.

D 2470–70 (1982), Method for Measurement of Delayed Neutron Emitting Fission Products in Nuclear Reactor Coolant Water During Reactor Operation. This method covers the detection and measurement of delayed neutron-emitting fission products contained in nuclear reactor coolant water while the reactor is operating, and is limited to the measurement of the delayed neutron-emitting bromine isotope of mass 87 and the delayed neutron-emitting iodine isotope of mass 137. This test method was discontinued in 1989.

D 2476–81 (1987), Test Method for Tritium in Water. This test method covers the liquid scintillation measurement of tritium radioactivity in water, T₂O or HTO. The upper limit of analysis without dilution is dependent upon the efficiency of the scintillator solution and the overload characteristics of the instrument. The minimum detectable activity is 0.4 pCi/mL for a 10-mL sample counted for 100 min in a counter where the background is 20 cpm and the efficiency is 18 %. This test method was discontinued in 1992 and replaced by Test Method D 4107 for Tritium in Drinking Water.

D 2577–86, Test Method for Radioactive Cesium in Water. This test method covers the determination of radioactive cesium in water in concentrations greater than 1 μ Ci/L. This test method was discontinued in 1989.

D 2790–83^{e1}, Methods of Analysis of Solvent Systems Used for Removal of Water-Formed Deposits. These methods cover the analysis of both the solvents and the deposit constituents in the solvents used for the chemical cleaning of industrial equipment. Included are methods for determining the concentrations of the principal active ingredients in the solvents and the dissolved deposit constituents derived from corrosion products and scale formations. Procedures are also included for alkaline boil-out solutions, such as sodium carbonate and sodium hydroxide.

D 2909–80^{e1}, Test Method for Cyclohexylamine in Water. This test method covers a colorimetric procedure for the determination of cyclohexylamine in boiler feedwater and steam condensate. This test method was discontinued in 1990

and replaced by Test Method D 4983 for Cyclohexylamine, Morpholine, and Diethylaminoethanol in Water and Condensed Steam by Direct Aqueous Injection Gas Chromatography.

D 2910–85, Practice for Concentration and Recovery of Organic Matter from Water by Activated Carbon. This practice provides a technique for the concentration and recovery of organic matter from water for analytical purposes. The organic matter is adsorbed from the water onto activated carbon which is solvent-extracted to recover the organic constituents. This practice was discontinued in 1993.

D 3085–75 (1983), Practice for Measurement of Low-Level Activity in Water. This practice describes the process necessary to obtain meaningful data from water samples that contain low levels (< 10 pCi) of radioactivity. This practice was discontinued in 1989.

D 3086–85 (1990), Test Method for Organochlorine Pesticides in Water. This test method covers the gas chromatographic determination of various organochlorine pesticides, including some pesticidal degradation products and related compounds in water and waste water. This test method was discontinued in 1996 and replaced by Test Method D 5812, Test Method for Determination of Organochlorine Pesticides in Water by Capillary Column Gas Chromatography.

D 3250–77 (1982)^{e2}, Test Method for Total Oxygen Demand in Water. This test method covers the determination of total oxygen demand in the ranges from 10 to 200, 25 to 500, 50 to 1000 mg/L, in water including brackish waters and brines. Larger concentrations may be determined by suitable dilution of the sample. This test method was discontinued in 1991.

D 3315–86, Test Method for Radioactive Zirconium in Water. This test method covers the determination of radioactive zirconium in water in concentrations greater than 100 pCi/L. This test method was discontinued in 1989.

D 3327–79^{e1}, Test Methods for Analysis of Selected Elements in Waterborne Oils. These test methods cover the determination of nitrogen (0.01 to 1 weight %), sulfur (above 0.0010 weight %), nickel (0.5 ppm to 0.1 weight %), and vanadium (0.5 ppm to 0.1 weight %) in waterborne oils for the purpose of aiding in the identification of such oils.

D 3357–83^{e1}, Test Method for Radioactive Nickel in Water. This test method covers the measurement of radioactive nickel in water at concentrations above 1100 pci/L (40.7 disintegrations/s·L). It is limited to the nickel isotope of mass 63, which is produced in nuclear reactor materials. This test method was discontinued in 1991.

D 3478–85^{e1}, Test Method for Chlorinated Phenoxy Acid Herbicides in Water. This test method covers a gas chromatographic procedure for the quantitative determination of chlorinated phenoxy acid herbicides in water. The compounds 2,4-D[2,4-dichlorophenoxyacetic acid], silvex [2-(2,4,5-trichlorophenoxy) propionic acid], and 2,4,5-T [2,4,5-trichlorophenoxy acetic acid] and similar chemicals such as chlorinated organic acids may be determined by this procedure. This test method was discontinued in 1992 and replaced by Test Method D 5317 for Determination of Chlorinated Organic Compounds in Water by Gas Chromatography with an Electron Capture Detector.

D 3560–83^{e1}, Test Method for Oxygen Demand in Water by Combustion-Infrared Analysis. This test method covers the determination of oxygen demand in the range from 25 to 300 mg/L in water. Higher oxygen demands may be determined by suitable dilution of the sample. This test method was discontinued in 1991.

D 3589–83^{e1}, Test Method for Total Nitrogen in Water by Microcoulometry. This test method covers the determination of the total nitrogen in water in concentrations from 0.5 to 100 mg/L. Higher nitrogen concentration may be determined by using appropriate diluents. This test method is applicable to water samples containing less than 20 % halogen or 5 % sulfur. This test method was discontinued in 1991.

D 3736–79, Test Method for Operating Characteristics of Reverse-Osmosis Devices. This method covers the determination of the operating characteristics of reverse-osmosis devices using standard test conditions and is not necessarily applicable to natural water. This method was discontinued in 1984 and replaced by ASTM Test Method D 4194, for Operating Characteristics of Reverse Osmosis Devices.

D 3857–79 (1984)^{e1}, Practice for Measurements of Water Velocity in Open Channels by Acoustic Means. This practice covers measurement of liquid flow velocity in open channels by acoustic means by the time difference or frequency difference techniques. This practice was discontinued in 1995 and Replaced by Test Method D 5389 for Open Channel Flow Measurement by Acoustic Velocity Meter Systems.

D 3977–80^{e1}, Practice for Determining Suspended-Sediment Concentration in Water Samples. The practice covers the procedures commonly used to determine the concentration of suspended sediment in water samples from streams, lakes, reservoirs, and ponds. Suspended-sediment concentration is used to quantify the load of sediment carried in water. In quiescent water, such as a lake, the quantity is the amount of sediment carried in a column of water above the bed. In a stream of flowing water this quantity, together with the water discharge, enables one to compute the suspended-sediment discharge. This practice was discontinued in 1995.

D 4183–82, Test Methods for Total Recoverable Phosphorus and Organic Phosphorus in Sediments. These test methods cover the determination of total recoverable phosphorus and organic phosphorus in sediments. These test methods are applicable to all forms of phosphorus except polyphosphates and minerals containing tightly bound phosphorus such as manozite and xenotime. These test methods were discontinued in 1995.

D 4187–82, Test Methods Zeta Potential of Colloids in Water and Waste Water. These test methods cover the method of measurement and calculation of the zeta potential of colloids in water and waste water from the determination of the electrophoretic mobility of colloidal particles. A fiber optic, blue-white light, and laser light procedure are included. These test methods were discontinued in 1992.

D 4197–82^{e1}, Test Methods for Percent Porosity of Membrane Filters. These test methods cover the determination of the percent porosity of membrane filters. The percent porosity is a function of the ratio of void volume to total volume of the filter media. These test methods were discontinued in 1995.

D 4408–84, Practice for Open-Channel Flow Measurement by Acoustic Means. This practice covers the measurement of flow rate of water in open channels, streams, and closed conduits that are not flowing full. This practice was discontinued in 1995 and replaced by Test Method D 5389 for Open Channel Flow Measurement by Acoustic Velocity Meter Systems.

D 4478–85, Test Methods for Oxygen Uptake. These test methods cover the determination of the oxygen utilization response of an acclimated activated sludge to untreated wastewaters, specific compounds, or mixtures. These test methods were discontinued in 1995.

F 57–66 (1980)^{e1}, Test Method for Concentrating and Measuring Trace Quantities of Copper in High-Purity Water Used in the Electronics Industry. This test method covers the concentration and removal of trace amounts of soluble ionic copper from high-purity water to yield a concentrated solution suitable for the determination of copper using Test Methods D 1688. This test method applies specifically to concentrations of copper in the range from 0.01 to 2 ppb. This test method cannot be used to detect organic or chelated copper. This test method was discontinued in 1990.

F 60–68 (1983)^{e2}, Test Methods for Detection and Estimation of Microbiological Contaminants in Water Used for Processing Electron and Microelectronic Devices. These test

methods cover the detection and enumeration of microbiological contaminants including bacteria, yeasts, fungi, molds, algae, and protozoa which may be found in electron device-processing waters. These test methods were discontinued in 1993.

F 316–86, Test Methods for Pore Size Characteristics of Membrane Filters by Bubble Point and Mean Flow Pore Test. These test methods cover the determination of two of the pore size properties of membrane filters with maximum pore sizes from 0.1 to 15.0 μm . These test methods were discontinued in 1995.

F 317 (1982)^{e1}, Test Method for Liquid Flow Rate of Membrane Filters. This test method covers the determination of the liquid flow rate of membrane filters having mean pore diameter from 5.0 to 0.10 μm . The technique employs water or Stoddard solvent for flow rate measurement. This test method was discontinued in 1995.

F 569–78 (1982)^{e1}, Test Method for Filterability Index of Reagent-Grade Water and High-Purity Waters for Microelectronic Device Processing. This test method covers the determination of the filterability index or filter-clogging characteristic of water resulting from the presence of colloidal particles or gelatinous contaminant in water. This test method was discontinued in 1989.