**Section 611.101 Definitions**

The terms this Section defines have the given meanings in this Part:

"Act" means the Environmental Protection Act [415 ILCS 5].

"Agency" means the Illinois Environmental Protection Agency.

BOARD NOTE: The Department of Public Health (Public Health or DPH) regulates non-CWSs, including NTNCWSs and transient non-CWSs. "Agency" means Public Health if implementation by Public Health occurs with regard to non-CWS suppliers.

"Approved source of bottled water", for the purposes of Section 611.130(d)(4), means a source of water and the packaged water it provides, whether from a spring, artesian well, drilled well, municipal water supply, or any other source, that the provider inspects, samples, analyzes, and finds has a safe and sanitary quality under laws and regulations of State and local government agencies having jurisdiction, as evidenced by current certificates or notations of approval in the packaging plant from each government agency having jurisdiction over the source, the water it bottles, and distributing the water in commerce.

BOARD NOTE: This definition derives from 40 CFR 142.62(g)(2) and 21 CFR 129.3(a). The Board cannot compile an exhaustive listing of all federal, State, and local laws regulating bottled water and bottling water. However, the Board is aware of some: the Illinois Food, Drug and Cosmetic Act [410 ILCS 620], the Bottled Water Act [815 ILCS 310], the DPH Water Well Construction Code (77 Ill. Adm. Code 920), the DPH Water Well Pump Installation Code (77 Ill. Adm. Code 925), the federal bottled water quality standards (21 CFR 103.35), the federal drinking water processing and bottling standards (21 CFR 129), the federal Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food (21 CFR 110), the federal Fair Packaging and Labeling Act (15 U.S.C. 1451 et seq.), and the federal Fair Packaging and Labeling regulations (21 CFR 201).

"Bag filters" means pressure-driven separation devices that remove particulate matter larger than one micrometer using an engineered porous filtration media. These are typically a non-rigid fabric filtration media housed in a pressure vessel where the direction of flow is from the inside to outside the bag.

"Bank filtration" means a water treatment process using a well to recover surface water naturally infiltrating into groundwater through a river bed or banks. A nearby pumping water supply or other wells typically enhances infiltration by the hydraulic gradient they impose.

"Best available technology" or "BAT" means the best technology, treatment techniques, or other means that USEPA determines are available for the contaminant in question. Subpart F specifies BAT.

"Bin classification" or "bin" means, for Subpart Z, the appropriate of the four treatment categories (Bin 1, Bin 2, Bin 3, or Bin 4) that a filtered system supplier assigns itself under Section 611.1010 based on the results of source water Cryptosporidium monitoring under Section 611.1001. This bin classification determines the degree of additional Cryptosporidium treatment, if any, the filtered system supplier must provide.

BOARD NOTE: This definition derives from 40 CFR 141.710 and 71 Fed. Reg. 654, 657 (Jan. 5, 2006).

"Board" means the Illinois Pollution Control Board.

"Cartridge filter" means a pressure-driven separation device that removes particulate matter larger than 1 micrometer using an engineered porous filtration media. A cartridge filter typically has rigid or semi-rigid self-supporting filter elements housed in a pressure vessel in which flow is from outside to inside the cartridge.

"CAS No." means "Chemical Abstracts Services Number".

"Clean compliance history" means, for Subpart AA, a record of no MCL violations under Section 611.325; no monitoring violations under Subpart L or Subpart AA; and no coliform treatment technique trigger exceedances or treatment technique violations under Subpart AA.

"Coagulation" means a process using coagulant chemicals and mixing that destabilizes and agglomerates colloidal and suspended materials into flocs.

"Combined distribution system" means the interconnected distribution system comprising the distribution systems of wholesale systems and of the consecutive systems that receive finished water.

"Community water system" or "CWS" means a PWS serving at least 15 service connections used by year-round residents or regularly serving at least 25 year-round residents.

BOARD NOTE: This definition differs slightly from that of Section 3.145 of the Act.

"Compliance cycle" means the nine-calendar-year cycle during which PWSs must monitor. Each compliance cycle consists of three three-year compliance periods. The first calendar cycle ran calendar years 1993 through 2001, the second ran 2002 through 2010, the third ran 2011 through 2019, etc.

"Compliance period" means a three-calendar-year period within a compliance cycle. Each compliance cycle has three three-year compliance periods. For example, the first compliance period ran calendar years 1993 through 1995, the second ran 1996 through 1998, and the third ran 1999 through 2001 within the first compliance cycle.

"Comprehensive performance evaluation" or "CPE" is a thorough review and analysis of a treatment plant's performance-based capabilities and associated administrative, operational, and maintenance practices. The supplier conducts a CPE to identify factors that may adversely affect a plant's ability to comply. The supplier conducts a CPE to achieve compliance and emphasize approaches it can implement without significant capital improvements.

BOARD NOTE: The final sentence of the definition of "comprehensive performance evaluation" in 40 CFR 141.2 is Section 611.160(a)(2), since it contains substantive elements.

"Confluent growth" means a continuous bacterial growth covering the entire filtration area or portion of a membrane filter in which bacterial colonies are not discrete.

"Consecutive system" means a PWS receiving some or all of its finished water from one or more wholesale systems. Delivery may be through a direct connection or the distribution system of one or more consecutive systems.

"Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.

"Conventional filtration treatment" means a series of processes, including coagulation, flocculation, sedimentation, and filtration, resulting in substantial "particulate removal".

"CT" or "CTcalc" is the product of residual disinfectant concentration (RDC or C) in mg/L, determined before or at the first customer, and the corresponding disinfectant contact time (T) in minutes. If a supplier applies disinfectants at more than one point prior to the first customer, it must determine the CT of each disinfectant sequence before or at the first customer to determine the total percent inactivation or "total inactivation ratio". In determining the total inactivation ratio, the supplier must determine the RDC of each disinfection sequence and corresponding contact time before any subsequent disinfection application points. (See the definition of "CT99.9".)

"CT99.9" is the CT value required for 99.9 percent (3-log) inactivation of Giardia lamblia cysts. Tables 1.1 through 1.6, 2.1, and 3.1 of Appendix B list CT99.9 values for a variety of disinfectants and conditions. (See the definition of "inactivation ratio".)

BOARD NOTE: This definition derives from the definition of "CT" in 40 CFR 141.2.

"Diatomaceous earth filtration" means a process resulting in substantial particulate removal:

The process deposits a precoat cake of diatomaceous earth filter media on a support membrane (septum); and

The process continuously adds additional filter media, known as body feed, to the feed water to maintain permeability of the filter cake while filtering the water by passing through the cake on the septum.

"Direct filtration" means a series of processes, including coagulation and filtration but excluding sedimentation, resulting in substantial particulate removal.

"Disinfectant" means any oxidant, including chlorine, chlorine dioxide, chloramines, and ozone, that a supplier adds to water in any part of the treatment or distribution process to kill or inactivate pathogenic microorganisms.

"Disinfectant contact time" or "T" means the time in minutes that water moves from the point of disinfectant application or the previous point of RDC measurement to a point before or at the point where the supplier measures RDC.

If the supplier measures only one RDC, T is the time in minutes that water moves from the point of disinfectant application to a point before or at the point where RDC is measured.

If the supplier measures more than one RDC:

For the first measurement of RDC, T is the time in minutes that water moves from the first or only point of disinfectant application to a point before or at the point where the supplier measures the first RDC; and

For subsequent measurements of RDC, T is the time in minutes that water moves from the previous RDC measurement point to the RDC measurement point where the supplier calculates the particular T.

In pipelines, the supplier must calculate T based on "plug flow" by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe.

Within mixing basins and storage reservoirs, the supplier must determine T using tracer studies or an equivalent demonstration.

"Disinfection" means a process that inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

"Disinfection byproduct" or "DBP" means a chemical byproduct forming when disinfectants used for microbial control react with naturally occurring compounds already present in source water. DBPs include bromodichloromethane, bromoform, chloroform, dichloroacetic acid, bromate, chlorite, dibromochloromethane, and certain haloacetic acids.

"Disinfection profile" is a summary of daily Giardia lamblia inactivation through a treatment plant. The procedure for developing a disinfection profile is in Section 611.742.

"Distribution system" includes all points downstream of an "entry point" to the point of consumer ownership.

"Domestic or other non-distribution system plumbing problem" means a coliform contamination problem in a PWS having more than one service connection that is limited to the specific service connection from which the supplier took the coliform-positive sample.

"Dose equivalent" means the product of the absorbed dose from ionizing radiation and the factors accounting for differences in biological effect due to the type of radiation and its distribution in the body.

BOARD NOTE: The International Commission on Radiation Units and Measurements (ICRU) specifies "dose equivalent" as the product of the absorbed dose (D), quality factor (QF), dose distribution factor (DF), and other necessary factors. See "Radiation Quantities and Units," International Commission on Radiological Units and Measurements (ICRU) Report 10a, Handbook 84, U.S. Department of Commerce, National Bureau of Standards (1962).

"Dual sample set" means a set of two samples the supplier collects at the same time and same location, analyzing one sample for TTHM and the other sample for HAA5. A supplier collects dual sample sets to conduct an IDSE under Subpart W and determine compliance with the TTHM and HAA5 MCLs under Subpart Y.

"E. coli" means Escherichia coli, a species of bacteria used as a specific indicator of fecal contamination and potential harmful pathogens.

BOARD NOTE: This definition derives from 78 Fed. Reg. 10270, 10271 (Feb. 13, 2013).

"Enhanced coagulation" means adding sufficient coagulant to improve removing disinfection byproduct (DBP) precursors by conventional filtration treatment.

"Enhanced softening" means using precipitative softening to improve removing disinfection byproduct (DBP) precursor.

"Entry point" means a point just downstream of the final treatment operation but upstream of the first user and any mixing with other water. If the supplier uses raw water without treatment, the "entry point" is the raw water source. If a PWS receives treated water from another PWS, the "entry point" is a point just downstream of the other PWS but upstream of the first user and any mixing with other water.

"Filter profile" is a graphical representation of individual filter performance based on continuous turbidity measurements or total particle counts versus time for an entire filter run from startup through backwash, including an assessment of filter performance while the supplier backwashes another filter.

"Filtration" means a process passing water through porous media to remove particulate matter.

"Finished water" means water that the supplier introduces into the distribution system of a PWS intending the water for distribution and consumption without further treatment, except treatment necessary to maintain water quality in the distribution system (e.g., booster disinfection, addition of corrosion control chemicals, etc.).

"Flocculation" means a process enhancing agglomeration or collection of smaller floc particles into larger, more easily settleable particles through gentle hydraulic or mechanical stirring.

"Flowing stream" means a course of running water flowing in a definite channel.

"40/30 certification" means the certification a supplier submits to the Agency under Section 611.923 that the supplier had no TTHM or HAA5 monitoring violations and no individual sample from its system exceeded 0.040 mg/L TTHM or 0.030 mg/L HAA5 during eight consecutive calendar quarters.

BOARD NOTE: This definition derives from 40 CFR 141.603(a).

"GAC10" means granular activated carbon (GAC) filter beds with an empty-bed contact time of 10 minutes based on average daily flow and a carbon reactivation frequency of every 180 days, except that the reactivation frequency for GAC10 a supplier uses as a best available technology to comply with the MCLs under Section 611.312(b)(2) is 120 days.

"GAC20" means granular activated carbon filter beds with an empty-bed contact time of 20 minutes based on average daily flow and a carbon reactivation frequency of every 240 days.

"GC" means "gas chromatography" or "gas-liquid phase chromatography".

"GC/MS" means gas chromatography (GC) followed by mass spectrometry (MS).

"Gross alpha particle activity" means the total radioactivity due to alpha particle emission as inferred from measurements on a dry sample.

"Gross beta particle activity" means the total radioactivity due to beta particle emission as inferred from measurements on a dry sample.

"Groundwater system" or "GWS" means a PWS using only groundwater sources, including a consecutive system receiving finished groundwater.

BOARD NOTE: This definition derives from 40 CFR 141.400(b).

"Groundwater under the direct influence of surface water" means any water beneath the ground surface with significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens, such as Giardia lamblia or Cryptosporidium, or significant and relatively rapid shifts in water characteristics, such as turbidity, temperature, conductivity, or pH, that closely correlate to climatological or surface water conditions. "Groundwater under the direct influence of surface water" is as determined under Section 611.212.

"Haloacetic acids (five)" or "HAA5" means the sum of the concentrations in milligrams per liter (mg/L) of five haloacetic acid compounds (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid), rounded to two significant figures after summing.

"Halogen" means one of the chemical elements chlorine, bromine, or iodine.

"HPC" means "heterotrophic plate count", as measured under Section 611.531(a)(2)(C).

"Hydrogeologic sensitivity assessment", for Subpart S, means a determination of whether a GWS supplier obtains water from a hydrogeologically sensitive setting.

BOARD NOTE: This definition derives from 40 CFR 141.400(c)(5).

"Inactivation ratio" or "Ai" means the ratio:

Ai = CTcalc/CT99.9

The sum of the inactivation ratios, or "total inactivation ratio" (B), is calculated by adding together the inactivation ratio for each disinfection sequence:

B = Σ(Ai)

A total inactivation ratio equal to or greater than 1.0 assumedly provides a 3-log inactivation of Giardia lamblia cysts.

BOARD NOTE: This definition derives from the definition of "CT" in 40 CFR 141.2.

"Initial compliance period" means the three-year compliance period that began January 1, 1993, except for the MCLs for dichloromethane, 1,2,4-trichlorobenzene, 1,1,2-trichloroethane, benzo(a)pyrene, dalapon, di(2-ethylhexyl)adipate, di(2-ethylhexyl)phthalate, dinoseb, diquat, endothall, endrin, glyphosate, hexachlorobenzene, hexachlorocyclopentadiene, oxamyl, picloram, simazine, 2,3,7,8-TCDD, antimony, beryllium, cyanide, nickel, and thallium, as they apply to a supplier whose system has fewer than 150 service connections, for which "initial compliance period" means the three-year compliance period that began January 1, 1996.

"Initial distribution system evaluation" or "IDSE" means the evaluation, performed by the supplier under Section 611.921(c), to determine the locations in a distribution system that are representative of high TTHM and HAA5 concentrations throughout the distribution system. An IDSE is used in conjunction with, but is distinct from, the compliance monitoring undertaken to identify and select monitoring locations used to determine compliance with Subpart I.

BOARD NOTE: This definition derives from 40 CFR 141.601(c).

"Inorganic contaminants" or "IOCs" refers to that group of contaminants designated as such in USEPA regulatory discussions and guidance documents. IOCs include antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, mercury, nickel, nitrate, nitrite, selenium, and thallium.

BOARD NOTE: This definition derives from 40 CFR 141.23(a)(4).

"ℓ" or "L" means liter.

"Lake or reservoir" means a natural or man made basin or hollow on the Earth's surface in which water collects or is stored that may or may not have a current or single direction of flow.

"Legionella" means a genus of bacteria, some species of which have caused a type of pneumonia called Legionnaires Disease.

"Level 1 assessment" means an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the system triggered the assessment. The system owner or operator conducts a Level 1 assessment. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality is impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, if appropriate (e.g., whether a groundwater system is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing. The supplier must conduct the assessment consistent with any Agency-imposed permit conditions that tailor specific assessment elements with respect to the size and type of the system and the size, type, and characteristics of the distribution system.

"Level 2 assessment" means an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the system triggered the assessment. A Level 2 assessment provides a more detailed examination of the system (including the system's monitoring and operational practices) than does a Level 1 assessment through the use of more comprehensive investigation and review of available information, additional internal and external resources, and other relevant practices. A person approved by the Agency in a SEP conducts a Level 2 assessment, and that person may include the system operator. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality is impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, if appropriate (e.g., whether a groundwater system is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing. The person conducting the Level 2 assessment and the supplier must conduct the assessment consistent with any Agency-imposed permit conditions that tailor specific assessment elements with respect to the size and type of the system and the size, type, and characteristics of the distribution system. The person conducting the Level 2 assessment and the supplier must comply with any expedited actions or additional actions the SEP requires in the instance of an E. coliMCL violation.

"Locational running annual average" or "LRAA" means the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

"Man-made beta particle and photon emitters" means all radionuclides emitting beta particles or photons listed in NBS Handbook 69 (63), incorporated by reference in Section 611.102, except the daughter products of thorium-232, uranium-235 and uranium-238.

BOARD NOTE: The USEPA-recognized naturally occurring daughter products are alpha emitters (211,212Bi, 231Pa, 210,212,214,215,216,218Po, 223,224,226Ra, 219,220,222Rn, 227,228,230Th, 234U ) and beta emitters (227,228Ac, 210,212,214Bi, 234Pa, 210,211,212,214Pb, 228Ra, 231,234Th, and 207,208TI. See 56 Fed. Reg. 33050, 33063-65 (July 18, 1991).

"Maximum contaminant level" or "MCL" means the maximum permissible concentration of a contaminant in water a supplier delivers to any user of its PWS. (See Section 611.121.)

"Maximum contaminant level goal" or "MCLG" means the maximum concentration of a contaminant in drinking water that USEPA determined will cause no known or anticipated adverse effect on the health of persons, allowing an adequate margin of safety. MCLGs are nonenforceable health goals.

BOARD NOTE: The federal MCLGs are outside the scope of the Board's identical-in-substance mandate under Section 17.5 of the Act.

"Maximum residual disinfectant level" or "MRDL" means the maximum permissible concentration of a disinfectant added for water treatment that USEPA determined a supplier may add and may not exceed at the consumer's tap without an unacceptable risk of adverse health effects. MRDLs are enforceable in the same manner as are MCLs. (See Section 611.313 and Section 611.383.)

"Maximum residual disinfectant level goal" or "MRDLG" means the maximum concentration of a disinfectant that USEPA determined a supplier may add for water treatment that would not cause any known or anticipated adverse effect on the health of persons, allowing an adequate margin of safety. MRDLGs are nonenforceable health goals and do not reflect the benefit of the addition of the chemical for control of waterborne microbial contaminants.

"Maximum total trihalomethane potential" or "MTP" means the maximum concentration of total trihalomethanes (TTHMs) produced in a given water containing a disinfectant residual after seven days at a temperature of 25° C or above.

"Membrane filtration" means a pressure- or vacuum-driven separation process in which particulate matter larger than one micrometer is rejected by an engineered barrier, primarily through a size exclusion mechanism, having a measurable removal efficiency of a target organism that is verifiable using a direct integrity test. This definition includes the common membrane technologies of microfiltration, ultrafiltration, nanofiltration, and reverse osmosis.

"Method detection limit" or "MDL" means the minimum concentration of a substance that analysis can measure and report with 99 percent confidence that the analyte concentration is greater than zero, from analysis of a sample in a given matrix containing the analyte.

"MFL" means millions of fibers per liter larger than 10 micrometers.

BOARD NOTE: This definition derives from 40 CFR 141.23(a)(4)(i).

"mg" means milligrams (1/1000 of a gram).

"µg" means micrograms (1/1,000,000 of a gram).

"mg/ℓ" or "mg/L" means milligrams per liter.

"µg/ℓ" or "µg/L" means micrograms per liter.

"Mixed system" means a PWS using both groundwater and surface water sources.

BOARD NOTE: Derived from 40 CFR 141.400(b).

"MUG" means 4-methyl-umbelliferyl-beta-d-glucuronide(IUPAC name: (2S,3S,4S,5R,6S)-3,4,5-trihydroxy-6-((4-methyl-2-oxo-2Hchromen-7-yl)oxy)tetrahydro-2H-pyran-2-caboxylic acid; CAS no. 881005-91-0).

"Near the first service connection" means at one of the 20 percent of all service connections in the entire system that are nearest the PWS treatment facility, as measured by water transport time within the distribution system.

"nm" means nanometer (1/1,000,000,000 of a meter).

"Non-community water system" or "NCWS" or "non-CWS" means a PWS that is not a CWS. A non-CWS is either a "transient non-community water system (TWS)" or NTNCWS.

"Non-transient, non-community water system" or "NTNCWS" means a PWS that is not a CWS and that regularly serves at least 25 of the same persons over six months per year.

"NPDWR" means "national primary drinking water regulation".

"NTU" means "nephelometric turbidity units".

"P-A Coliform Test" means "Presence-Absence Coliform Test".

"Paired sample" means two samples of water for total organic carbon (TOC). One sample is of raw water the supplier takes prior to any treatment. The supplier takes the other sample after the point of combined filter effluent representative of the treated water. The supplier takes these samples at the same time. (See Section 611.382.)

"Performance evaluation sample" or "PE sample" means a reference sample the Agency provides a laboratory for demonstrating that the laboratory can successfully analyze the sample within limits of performance the Agency specifies. For bacteriological laboratories, Public Health provides the sample. For radiological laboratories, the Illinois Emergency Management Agency provides the sample. The laboratory does not know the true value of the concentration of the reference material at the time of analysis.

"Person" means an individual, corporation, company, association, partnership, state, unit of local government, or federal agency.

"Phase I" refers to that group of chemical contaminants and the accompanying regulations promulgated by USEPA on July 8, 1987, at 52 Fed. Reg. 25712.

"Phase II" refers to that group of chemical contaminants and the accompanying regulations promulgated by USEPA on January 30, 1991, at 56 Fed. Reg. 3578.

"Phase IIB" refers to that group of chemical contaminants and the accompanying regulations promulgated by USEPA on July 1, 1991, at 56 Fed. Reg. 30266.

"Phase V" refers to that group of chemical contaminants promulgated by USEPA on July 17, 1992, at 57 Fed. Reg. 31776.

"Picocurie" or "pCi" means the quantity of radioactive material producing 2.22 nuclear transformations per minute.

"Plant intake" means the works or structures at the head of a conduit diverting water from a source (e.g., a river or lake) into the treatment plant.

"Point of disinfectant application" is the point where a supplier applies the disinfectant and downstream of where the water is not subject to recontamination by surface water runoff.

"Point-of-entry treatment device" or "POE device" is a treatment device a consumer applies to the drinking water entering a house or building to reduce contaminants in the drinking water distributed throughout the house or building.

"Point-of-use treatment device", "point-of-use device", or "POU" is a water treatment device a consumer applies to a single tap to reduce contaminants in drinking water at that tap. Under Subpart G, a manufacturer, importer, or accredited third-party certifying body must certify a POU device as complying with NSF/ANSI 53 or 58 as in effect on the date of manufacture or import to satisfy the rule.

BOARD NOTE: NSF/ANSI 53 is the health-based standard for lead and several other contaminants for water filter devices, including tap filter-type treatment devices. Identifying a device as certified under NSF/ANSI 53 at the time of purchase is possible. NSF maintains an on-line list of certified devices at info.nsf.org/Certified/dwtu/listings\_leadreduction.asp. See the definition of "accredited third-party certifying body" in 35 Ill. Adm. Code 611.126(b) relating to NSF/ANSI 372.

"Presedimentation" means a preliminary treatment process a supplier uses to remove gravel, sand, and other particulate material from the source water through settling before the water enters the primary clarification and filtration processes in a treatment plant.

"Public Health" or "DPH" means the Illinois Department of Public Health.

BOARD NOTE: See the definition of "Agency" in this Section.

"Public water system" or "PWS" means a system providing water to the public for human consumption through pipes or other constructed conveyances if the system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. A PWS is either a CWS or non-CWS. A PWS does not include any special irrigation district. "PWS" includes certain facilities:

Any collection, treatment, storage, and distribution facilities under control of the PWS operator that the operator uses in connection with the system; and

Any collection or pretreatment storage facilities not under control of the PWS operator that the operator uses primarily in connection with the system.

BOARD NOTE: SDWA and USEPA rules use "public water system". The Act uses "public water supply". The Board intends that "public water supply" means the same as "public water system" and both terms refer both to the facilities providing water and the persons owning and operating those facilities.

"Radioactive contaminants" means those contaminants for which Section 611.330 imposes an MCL. "Radioactive contaminants" include radium-226 and -228, tritium, strontium-89, strontium-90, iodine-131, cesium-134, uranium, gross alpha emitters, gross beta emitters, photon emitters, and other nuclides emitting energetic nuclear particles or photons.

BOARD NOTE: This definition derives from Table C in 40 CFR 141.25(c), 141.66, appendix A to subpart O, and appendices A and B to subpart Q of 40 CFR 141.

"Reliably and consistently below the MCL" for a contaminant means an Agency determination based on analytical results following the initial detection of a contaminant to determine the qualitative condition of water from an individual sampling point or source. The Agency must base this determination on the consistency of analytical results, the degree below the MCL, the susceptibility of source water to variation, and other vulnerability factors pertinent to the detected contaminant that may influence the quality of water.

BOARD NOTE: This definition derives from 40 CFR 141.23(b)(9), (c)(8), (d)(2), and (e)(3) and 141.24(f)(11)(ii), and 141.24(f)(11)(iii), (f)(12), (h)(6)(ii), and (h)(8).

"Rem" means the unit of dose equivalent from ionizing radiation to the total body or any internal organ or organ system. A "millirem (mrem)" is 1/1000 of a rem.

"Repeat compliance period" means a compliance period that begins after the initial compliance period.

"Representative" means that a sample reflects the quality of water a supplier delivers to consumers under conditions when the supplier uses all raw water sources it requires to supply water under normal use conditions and all treatment properly operates.

"Residual disinfectant concentration", "RDC", or the variable "C" in CT calculations means the concentration of disinfectant measured in mg/L in a representative sample of water. For purposes of the requirement of Section 611.241(d) of maintaining a detectable RDC in the distribution system, "RDC" means a residual of free or combined chlorine.

"Safe Drinking Water Act" or "SDWA" means the Public Health Service Act, as amended by the Safe Drinking Water Act, Pub. L. 93-523, 42 U.S.C. 300f et seq.

"Sanitary defect" means a defect that could provide a pathway of entry for microbial contamination of a supplier's distribution system or that indicates a failure or imminent failure in an existing barrier to microbial contamination.

"Sanitary survey" means an onsite review of the delineated WHPAs (identifying sources of contamination within the WHPAs and evaluations or the hydrogeologic sensitivity of the delineated WHPAs the Agency conducted under source water assessments or utilizing other relevant information if available), facilities, equipment, operation, maintenance, and monitoring compliance of a PWS supplier to evaluate the adequacy of the system, its sources, and operations for the production and distribution of safe drinking water.

BOARD NOTE: This definition derives from 40 CFR 141.2 and 40 CFR 142.16(o)(2).

"Seasonal system" means a non-CWS not operating as a PWS on a year-round basis and starting up and shutting down at the beginning and end of each operating season.

"Sedimentation" means a process for removing solids before filtration by gravity or separation.

"SEP" means special exception permit the Agency issued under 35 Ill. Adm. Code 602.600.

"Service connection", as used in the definition of PWS, does not include a connection to a system delivering water by a constructed conveyance other than a pipe if any of certain conditions exist:

Consumers use the water exclusively for purposes other than residential use (consisting of drinking, bathing, and cooking, or other similar uses);

The Agency issues a SEP determining that the supplier provides alternative water for residential use or similar uses for drinking and cooking to achieve the equivalent level of public health protection to that the applicable national primary drinking water regulations provide; or

The Agency issues a SEP determining that the water provided for residential use or similar uses for drinking, cooking, and bathing is centrally treated or treated at the point of entry by the provider, a pass-through entity, or the user to achieve the equivalent level of public health protection to that the applicable national primary drinking water regulations provide.

BOARD NOTE: See SDWA sections 1401(4)(B)(i)(II) and (4)(B)(i)(III) (42 U.S.C. 300f(4)(B)(i)(II) and (4)(B)(i)(III)).

"Significant deficiency" means a deficiency the Agency identifies in a groundwater system under Section 611.803. A significant deficiency might include a defect in system design, operation, or maintenance or a failure or malfunction of the sources, treatment, storage, or distribution system that the Agency determines causes or could cause introduction of contamination into the water the supplier delivers to consumers.

BOARD NOTE: This definition derives from 40 CFR 142.16(o)(2)(iv). The Agency must submit to USEPA a definition and description of at least one significant deficiency in each of the eight sanitary survey elements listed in Section 611.801(c) as part of the federal primacy requirements. The Board added the general description of what a significant deficiency might include in non-limiting terms, not intending to limit Agency discretion submitting what USEPA requires. What the Agency submits to USEPA cannot provide a definition within the Board regulations without Board rulemaking action.

"Slow sand filtration" means a process involving passing raw water through a bed of sand at low velocity (generally less than 0.4 meters per hour (m/h)) resulting in physical and biological mechanisms substantially removing particulate material.

"SOC" or "Synthetic organic chemical contaminant" refers to that group of contaminants designated as "SOCs" in Section 611.311(c).

"Source" means a well, reservoir, or other source of raw water.

"Special irrigation district" means an irrigation district in existence prior to May 18, 1994 that provides primarily agricultural service through a piped water system with only incidental residential use or similar use if the Agency issues a SEP making either of two determinations:

The Agency determines that the supplier or another person provides alternative water for residential use or similar uses for drinking or cooking to achieve the equivalent level of public health protection to that the applicable national primary drinking water regulations provide; or

The Agency issues a SEP determining that the water provided for residential use or similar uses for drinking, cooking, and bathing is centrally treated or treated at the point of entry by the provider, a pass-through entity, or the user to protect public health at a level equivalent to that the applicable NPDWRs provide.

BOARD NOTE: This definition derives from 40 CFR 141.2 and sections 1401(4)(B)(i)(II) and (4)(B)(i)(III) of SDWA (42 U.S.C. 300f(4)(B)(i)(II) and (4)(B)(i)(III)).

"Standard monitoring" means the monitoring the supplier performs under Section 611.921(a) and (b) at various specified locations in its distribution system, including near entry points, at points representing the average residence time in its distribution system and at points in its distribution system representing high TTHM and HAA5 concentrations throughout the system.

BOARD NOTE: This definition derives from 40 CFR 141.601(a) and (b).

"Standard sample" means the aliquot of finished drinking water the supplier or laboratory examines for the presence of coliform bacteria.

"State-only MCL" means one of the inorganic maximum contaminant levels (MCLs) in Section 611.300 or organic MCLs in Section 611.310.

BOARD NOTE: State-only MCLs are those derived prior to the implementation of the USEPA "Phase II" regulations. The Section 611.640 definition of this term, applying only to Subpart O, does not include the Section 611.300 inorganic MCLs.

"Subpart B system" means a PWS using surface water or groundwater under the direct influence of surface water as a source that is subject to Subpart B and the analytical and monitoring requirements of Sections 611.531, 611.532, and 611.533 and Appendices B and C.

BOARD NOTE: USEPA rules define these "subpart H systems".

"Subpart I compliance monitoring" means monitoring required under Subpart I to demonstrate compliance with requirements for disinfectant residuals, disinfection byproducts, and disinfection byproduct precursors.

BOARD NOTE: The equivalent to Subpart I is subpart L of 40 CFR 141 under USEPA's rules.

"Subpart Y compliance monitoring" or "Subpart Y monitoring" means monitoring Subpart Y requires to demonstrate compliance with Stage 2 requirements for disinfection byproducts.

BOARD NOTE: The equivalent to Subpart Y is subpart V of 40 CFR 141 under USEPA's rules.

"Supplier " means any person owning or operating a PWS. This term includes the "official custodian". Under several rules, “supplier” includes a person performing a compliance-related activity on behalf of the owner or operator (e.g., a laboratory performing analyses, an engineer performing an assessment, design review, system evaluation, or other work, or a property owner or occupant sampling a tap).

"Surface water" means any water that is open to the atmosphere and subject to surface runoff.

"SUVA" means specific ultraviolet absorption at 254 nanometers (nm), an indicator of the humic content of water. "SUVA" is a sample's ultraviolet absorption at a wavelength of 254 nm (UV254)(in m-1) divided by its concentration of dissolved organic carbon (in mg/L).

"SWS" means "surface water system", a PWS using only surface water sources, including groundwater under the direct influence of surface water.

BOARD NOTE: This definition derives from 40 CFR 141.23(a)(2) note, 141.24(h)(2) note, 141.70(a), and 141.88(a)(1)(ii) note.

"System-specific study plan" means the plan a supplier submits to the Agency under Section 611.922 for studying the occurrence of TTHM and HAA5 in the supplier's distribution system based on either monitoring results or modelling of the system.

BOARD NOTE: This definition derives from 40 CFR 141.602.

"System with a single service connection" means a system supplying drinking water to consumers via a single service line.

"Too numerous to count" means that the total number of bacterial colonies exceeds 200 on a 47-mm diameter membrane filter used for coliform detection.

"Total organic carbon" or "TOC" means total organic carbon (in mg/L) measured using heat, oxygen, ultraviolet irradiation, chemical oxidants, or combinations of these to oxidize organic carbon to carbon dioxide, rounded to two significant figures.

"Total trihalomethanes" or "TTHM" means the sum of the concentration of trihalomethanes (THMs) in milligrams per liter (mg/L), rounded to two significant figures.

BOARD NOTE: The definition of "trihalomethanes" lists the four compounds that USEPA considers TTHMs.

"Transient, non-community water system" or "transient non-CWS" means a non-CWS not regularly serving at least 25 of the same persons over six months of the year.

BOARD NOTE: The federal regulations apply to all "public water systems", defined as all systems having at least 15 service connections or regularly serving water to at least 25 persons. (See 42 U.S.C. 300f(4).) The Act mandates that the Board and the Agency regulate "public water supplies", defined as having at least 15 service connections or regularly serving 25 persons daily at least 60 days per year. (See Section 3.365 of the Act.) The Department of Public Health regulates transient non-CWSs.

"Treatment" means any process changing the physical, chemical, microbiological, or radiological properties of water that is under the control of the supplier and is not a point-of-use treatment device or a point-of-entry treatment device. Treatment includes aeration, coagulation, sedimentation, filtration, activated carbon treatment, disinfection, or fluoridation.

"Trihalomethane" or "THM" means one of four specific derivatives of methane in which halogens substitute three of the four hydrogen atoms in the molecular structure. There are four THMs:

Trichloromethane (chloroform),

Dibromochloromethane,

Bromodichloromethane, and

Tribromomethane (bromoform)

"Two-stage lime softening" means a process in which adding chemical precipitant and precipitating hardness occur in two distinct clarification process units in series prior to filtration.

"USEPA" means the U.S. Environmental Protection Agency.

"Uncovered finished water storage facility" is a tank, reservoir, or other facility directly open to the atmosphere a supplier uses to store water that will undergo no further treatment to reduce microbial pathogens except residual disinfection.

"Very small system waiver" means a conditional waiver from Subpart W available under Section 611.924 to a supplier serving fewer than 500 persons that took TTHM and HAA5 samples under Subpart I.

BOARD NOTE: This definition derives from 40 CFR 141.604.

"Virus" means a virus of fecal origin that is infectious to humans by waterborne transmission.

"VOC" or "volatile organic chemical contaminant" refers to that group of contaminants designated as "VOCs" in Section 611.311(a).

"Waterborne disease outbreak" means a significant occurrence of acute infectious illness epidemiologically associated with the ingestion of water from a PWS that is deficient in treatment, as determined by an appropriate local or State agency.

"Wellhead protection area" or "WHPA" means the surface and subsurface recharge area surrounding a CWS well or well field, delineated outside of any applicable setback zones (under Section 17.1 of the Act) under Illinois' Wellhead Protection Program, through which contaminants are reasonably likely to move toward such well or well field.

BOARD NOTE: The Agency uses two guidance documents for identification of WHPAs:

"Guidance Document for Groundwater Protection Needs Assessments", Illinois Environmental Protection Agency, Illinois State Water Survey, and Illinois State Geologic Survey joint report, January 1995; and

"The Illinois Wellhead Protection Program under Section 1428 of the Federal Safe Drinking Water Act", Illinois Environmental Protection Agency, No. 22480, October 1992.

"Wellhead protection program" means the Illinois wellhead protection program, approved by USEPA under section 1428 of the SDWA, 42 U.S.C. 300h-7.

BOARD NOTE: This definition derives from 40 CFR 141.71(b). The wellhead protection program includes the "groundwater protection needs assessment" under Section 17.1 of the Act and 35 Ill. Adm. Code 615 through 617.

"Wholesale system" means a PWS treating source water as necessary to produce finished water, delivering some or all of that finished water to another PWS. A wholesale system may deliver water through a direct connection or through the distribution system of one or more consecutive systems.

BOARD NOTE: This Section derives from 40 CFR 141.2 and other sources as noted.

(Source: Amended at 47 Ill. Reg. 16486, effective November 2, 2023)