

ILLINOIS POLLUTION CONTROL BOARD
September 23, 1999

IN THE MATTER OF:)
)
SDWA UPDATE, Amendments to) R00-8
35 Ill. Adm. Code 611.102, Definition of) (Identical-in-Substance Rulemaking -
"Public Water Supply") Public Water Supplies)

Proposed Rule. Proposal for Public Comment.

OPINION AND ORDER OF THE BOARD (by R.C. Flegal):

Under Section 17.5 of the Environmental Protection Act (Act) (415 ILCS 5/17.5 (1998)), the Board proposes amendments to the Illinois regulations that are "identical in substance" to National Primary Drinking Water regulations (NPDWRs) adopted by the United States Environmental Protection Agency (USEPA). These regulations implement sections 1412(b), 1414(c), 1417(a), and 1445(a) of the Safe Drinking Water Act (SDWA), 42 U.S.C §§ 300g-1(b), 300g-3(c), 300g-6(a) & 300j-4(a).

Section 17.5 provides for quick adoption of regulations that are "identical in substance" to federal regulations that USEPA adopts to implement Sections 1412(b), 1414(c), 1417(a), and 1445(a) of SDWA. Section 17.5 also provides that Title VII of the Act and Section 5 of the Administrative Procedure Act (APA) (5 ILCS 100/5-35 & 5-40 (1996)) do not apply to the Board's adoption of identical-in-substance regulations. The federal SDWA regulations are found at 40 C.F.R. §§ 141 and 142.

In the present action, the Board is correcting a discrepancy found in the amendments adopted in In the Matter of: SDWA Update, USEPA Regulations (January 1, 1998, through June 30, 1998) (February 4, 1999), R99-6. The Illinois Environmental Protection Agency (IEPA) brought the discrepancy to the Board's attention. In public comment number one (PC 1), described below, the IEPA has requested that the Board make the necessary correction as soon as possible, in order to facilitate state primacy review of the amended text by USEPA.

USEPA amended the 40 C.F.R. 141.2 definition of "public water system" on April 28, 1998, at 63 Fed. Reg. 23362, 23366 (April 28, 1999). USEPA changed a segment of the definition that formerly read "a system for the provision of piped water to the public for human consumption . . ." to read "a system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances . . ." The definition of "public water system" at 35 Ill. Adm. Code 611.101 is the Illinois counterpart to the amended federal definition. This state definition is intended to be identical in substance to the corresponding federal definition.

In In the Matter of: SDWA Update, USEPA Regulations (January 1, 1998, through June 30, 1998) (February 4, 1999), R99-6, the Board sought to incorporate the federal amendments of April 28, 1998, using the identical in substance procedure of Sections 7.2 and 17.5 of the Act. The Board added the language relating to "other constructed conveyances," dropping the past effective date, August 5, 1998. In incorporating the federal text into the Illinois rules, however, we neglected to remove the word "piped" and add the words "through pipes" in the appropriate place.

In response to the request of the IEPA in PC 1, and to enhance the clarity of the regulatory text, the Board proposes amending the definition of "public water system." The language the Board proposes using the "through pipes" language of the corresponding federal definition. The Board also proposes responding to a second IEPA request with a second clarifying amendment to this definition; we propose adding to the Board note appended to the definition of "public water system" a statement that this term is synonymous to "public water supply," which is also used in the regulations.

PUBLIC COMMENTS

The Board will receive public comments on this proposal for a period of 45 days following its publication in the *Illinois Register*. After that time, the Board will immediately consider adoption of the amendments, making any necessary changes made evident through the public comments. The Board will file any adopted rules with the Secretary of State immediately after adoption, so they may become effective as soon as possible. The complete text of the proposed amendments appears in the order segment of this opinion and order.

The Board initiated this proceeding based on a request submitted by the IEPA. The IEPA requested that the Board make the correction to the definition of “public water system” described above. The IEPA also requested that the Board add clarification to the Board note appended to that definition that the term “public water supply” means the same as “public water system.”

The public comment received to date in this matter is the following:

PC 1 Lou Allyn Byus, Assistant Manager—Field Operations, IEPA Bureau of Water, Division of Public Water Supplies (September 10, 1999 letter)

ORDER

The complete text of the proposed amendments follows:

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SUBTITLE F: PUBLIC WATER SUPPLIES
CHAPTER I: POLLUTION CONTROL BOARD

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AUTHORITY: Implementing Sections 17 and 17.5 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/17, 17.5, and 27].

SOURCE: Adopted in R88-26 at 14 Ill. Reg. 16517, effective September 20, 1990; amended in R90-21 at 14 Ill. Reg. 20448, effective December 11, 1990; amended in R90-13 at 15 Ill. Reg. 1562, effective January 22, 1991; amended in R91-3 at 16 Ill. Reg. 19010, effective December 1, 1992; amended in R92-3 at 17 Ill. Reg. 7796, effective May 18, 1993; amended in R93-1 at 17 Ill. Reg. 12650, effective July 23, 1993; amended in R94-4 at 18 Ill. Reg. 12291, effective July 28, 1994; amended in R94-23 at 19 Ill. Reg. 8613, effective June 20, 1995; amended in R95-17 at 20 Ill. Reg. 14493, effective October 22, 1996; amended in R98-2 at 22 Ill. Reg. 5020, effective March 5, 1998; amended in R99-6 at 23 Ill. Reg. 2756, effective February 17, 1999; amended in R99-12 at 23 Ill. Reg. 10348, effective August 11, 1999 ; amended in R00-8 at 23 Ill. Reg. _____, effective _____ .

SUBPART A: GENERAL

Section 611.101 Definitions

As used in this Part, the term:

“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”) regulates non-community water supplies (“non-CWSs”, including non-transient, non-community water supplies (“NTNCWSs”) and transient non-community water supplies (“transient non-CWSs”). For the purposes of regulation of supplies by Public Health by reference to this Part, “Agency” shall mean Public Health.

“Ai” means “inactivation ratio”.

“Approved source of bottled water”, for the purposes of Section 611.130(e)(4), means a source of water and the water therefrom, whether it be from a spring, artesian well, drilled well, municipal water supply, or any other source, that has been inspected and the water sampled, analyzed, and found to be a safe and sanitary quality according to applicable laws and regulations of State and local government agencies having jurisdiction, as evidenced by the presence in the plant of current certificates or notations of approval from each government agency or agencies having jurisdiction over the source, the water it bottles, and the distribution of the water in commerce.

BOARD NOTE: Derived from 40 CFR 142.62(g)(2) and 21 CFR 129.3(a) (1998). The Board cannot compile an exhaustive listing of all federal, state, and local laws to which bottled water and bottling water may be subjected. However, the statutes and regulations of which the Board is aware are the following: 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 Good Manufacturing Practices for human foods (21 CFR 110), the federal Fair Packaging and Labeling Act (15 USC 1451 et seq.), and the federal Fair Packaging and Labeling regulations (21 CFR 201).

“Best available technology” or “BAT” means the best technology, treatment techniques or other means that USEPA has found are available for the contaminant in question. BAT is specified in Subpart F of this Part.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Board” means the Illinois Pollution Control Board.

“CAS No” means “Chemical Abstracts Services Number”.

“CT” or “CT_{calc}” 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 shall 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 shall determine the RDC of each disinfection sequence and corresponding contact time before any subsequent disinfection application point(s). (See “CT_{99.9}”.)

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“CT_{99.9}” is the CT value required for 99.9 percent (3-log) inactivation of *Giardia lamblia* cysts. CT_{99.9} for a variety of disinfectants and conditions appear in Tables 1.1-1.6, 2.1 and 3.1 of Section 611.Appendix B. (See “Inactivation Ratio”.)

BOARD NOTE: Derived from the definition of “CT” in 40 CFR 141.2 (1998).

“Coagulation” means a process using coagulant chemicals and mixing by which colloidal and suspended materials are destabilized and agglomerated into flocs.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Community Water System” or “CWS” means a public water system (PWS) that serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

BOARD NOTE: Derived from 40 CFR 141.2 (1998). This definition differs slightly from that of Section 3.05 of the Act.

“Compliance cycle” means the nine-year calendar year cycle during which public water systems (PWSs) must monitor. Each compliance cycle consists of three three-year compliance periods. The first calendar cycle begins January 1, 1993, and ends December 31, 2001; the second begins January 1, 2002, and ends December 31, 2010; the third begins January 1, 2011, and ends December 31, 2019.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Compliance period” means a three-year calendar year period within a compliance cycle. Each compliance cycle has three three-year compliance periods. Within the first compliance cycle, the first compliance period runs from January 1, 1993, to December 31, 1995; the second from January 1, 1996, to December 31, 1998; the third from January 1, 1999, to December 31, 2001.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Comprehensive performance evaluation” or “CPE” is a thorough review and analysis of a treatment plant’s performance-based capabilities and associated administrative, operation, and maintenance practices. It is conducted to identify factors that may be adversely impacting a plant’s capability to achieve compliance and emphasizes approaches that can be implemented without significant capital improvements.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Diatomaceous earth filtration” means a process resulting in substantial particulate removal in which:

A precoat cake of diatomaceous earth filter media is deposited on a support membrane (septum); and

While the water is filtered by passing through the cake on the septum, additional filter media known as body feed is continuously added to the feed water to maintain the permeability of the filter cake.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Disinfectant” means any oxidant, including but not limited to chlorine, chlorine dioxide, chloramines, and ozone added to water in any part of the treatment or distribution process, that is intended to kill or inactivate pathogenic microorganisms.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Disinfectant contact time” or “T” means the time in minutes that it takes for water to move from the point of disinfectant application or the previous point of RDC measurement to a point before or at the point where RDC is measured.

Where only one RDC is measured, T is the time in minutes that it takes for water to move from the point of disinfectant application to a point before or at the point where RDC is measured.

Where more than one RDC is measured, T is:

For the first measurement of RDC, the time in minutes that it takes for water to move from the first or only point of disinfectant application to a point before or at the point where the first RDC is measured, and

For subsequent measurements of RDC, the time in minutes that it takes for water to move from the previous RDC measurement point to the RDC measurement point for which the particular T is being calculated.

T in pipelines must be calculated based on “plug flow” by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe.

T within mixing basins and storage reservoirs must be determined by tracer studies or an equivalent demonstration.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Disinfection Byproduct” or “DBP” means a chemical byproduct that forms when disinfectants used for microbial control react with naturally occurring compounds already present in source water. DBPs include, but are not limited to, bromodichloromethane, bromoform, chloroform, dichloroacetic acid, bromate, chlorite, dibromochloromethane, and certain haloacetic acids.

“Disinfection profile” is a summary of daily *Giardia lamblia* inactivation through the treatment plant. The procedure for developing a disinfection profile is contained in Section 611.742.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“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 with more than one service connection that is limited to the specific service connection from which the coliform-positive sample was taken.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Dose equivalent” means the product of the absorbed dose from ionizing radiation and such factors as account for differences in biological effectiveness due to the type of radiation and its

distribution in the body as specified by the International Commission on Radiological Units and Measurements (ICRU).

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Enhanced coagulation” means the addition of sufficient coagulant for improved removal of disinfection byproduct (DBP) precursors by conventional filtration treatment.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Enhanced softening” means the improved removal of disinfection byproduct (DBP) precursors by precipitative softening.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Entry point” means a point just downstream of the final treatment operation, but upstream of the first user and upstream of any mixing with other water. If raw water is used 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 on the receiving PWS, and upstream of 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 to backwash inclusively, that includes an assessment of filter performance while another filter is being backwashed.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Filtration” means a process for removing particulate matter from water by passage through porous media.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Flocculation” means a process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable particles through gentle stirring by hydraulic or mechanical means.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“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.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“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.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Groundwater under the direct influence of surface water” means any water beneath the surface of the ground with significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as *Giardia lamblia* or (for Subpart B systems serving at least 10,000 persons only) *Cryptosporidium*, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or

surface water conditions. “Groundwater under the direct influence of surface water” is as determined in Section 611.212.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“GWS” means “groundwater system”, a public water supply (PWS) that uses only groundwater sources.

BOARD NOTE: Drawn from 40 CFR 141.23(b)(2) & 141.24(f)(2) note (1998).

“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 addition.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“HPC” means “heterotrophic plate count”, measured as specified in Section 611.531(c).

“Inactivation Ratio” (Ai) means:

$$A_i = CT_{\text{calc}} / CT_{99.9}$$

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

$$B = \sum(A_i)$$

A total inactivation ratio equal to or greater than 1.0 is assumed to provide a 3-log inactivation of *Giardia lamblia* cysts.

BOARD NOTE: Derived from the definition of “CT” in 40 CFR 141.2 (1998).

“Initial compliance period” means the three-year compliance period that begins 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 suppliers whose supplies have fewer than 150 service connections, for which it means the three-year compliance period that begins on January 1, 1996.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Inorganic contaminants” or “IOCs” refers to that group of contaminants designated as such in United States Environmental Protection Agency (USEPA) regulatory discussions and guidance documents. IOCs include antimony, asbestos, barium, beryllium, cadmium, chromium, cyanide, mercury, nickel, nitrate, nitrite, selenium, and thallium.

BOARD NOTE: The IOCs are derived from 40 CFR 141.23(a)(4) (1998).

“L” means “liter”.

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Man-made beta particle and photon emitters” means all radionuclides emitting beta particles or photons listed in Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure, NCRP Report Number 22, incorporated by reference in Section 611.102, except the daughter products of thorium-232, uranium-235 and uranium-238.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Maximum contaminant level” (“MCL”) means the maximum permissible level of a contaminant in water that is delivered to any user of a public water system. (See Section 611.121.)

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Maximum contaminant level goal” (“MCLG”) means the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur, and which allows an adequate margin of safety. MCLGs are nonenforceable health goals.

BOARD NOTE: Derived from 40 CFR 141.2 (1998). The Board has not routinely adopted the regulations relating to the federal MCLGs because they 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 level of a disinfectant added for water treatment that may not be exceeded at the consumer’s tap without an unacceptable possibility of adverse health effects. MRDLs are enforceable in the same manner as are MCLs. (See Section 611.313 and Section 611.383.)

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Maximum residual disinfectant level goal” or “MRDLG” means the maximum level of a disinfectant added for water treatment at which no known or anticipated adverse effect on the health of persons would occur, and which allows 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.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Maximum Total Trihalomethane Potential” or “MTP” means the maximum concentration of total trihalomethanes (TTHMs) produced in a given water containing a disinfectant residual after 7 days at a temperature of 25° C or above.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

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

BOARD NOTE: Derived from 40 CFR 141.23(a)(4)(i) (1998).

“mg” means milligrams (1/1000th of a gram).

“mg/L” means milligrams per liter.

“Mixed system” means a PWS that uses both groundwater and surface water sources.

BOARD NOTE: Drawn from 40 CFR 141.23(b)(2) and 141.24(f)(2) note (1998).

“MUG” means 4-methyl-umbelliferyl-beta-d-glucuronide.

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

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

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Non-transient non-community water system” or “NTNCWS” means a public water system (PWS) that is not a community water system (CWS) and that regularly serves at least 25 of the same persons over 6 months per year.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“NPDWR” means “national primary drinking water regulation”.

“NTU” means “nephelometric turbidity units”.

“Old MCL” means one of the inorganic maximum contaminant levels (MCLs), codified at Section 611.300, or organic MCLs, codified at Section 611.310, including any marked as “additional state requirements.”

BOARD NOTE: Old MCLs are those derived prior to the implementation of the USEPA “Phase II” regulations. The Section 611.640 definition of this term, which applies only to Subpart O of this Part, differs from this definition in that the definition does not include the Section 611.300 inorganic MCLs.

“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 taken prior to any treatment. The other sample is taken after the point of combined filter effluent and is representative of the treated water. These samples are taken at the same time. (See Section 611.382.)

“Performance evaluation sample” means a reference sample provided to a laboratory for the purpose of demonstrating that the laboratory can successfully analyze the sample within limits of performance specified by the Agency; or, for bacteriological laboratories, Public Health; or, for radiological laboratories, the Illinois Department of Nuclear Safety. The true value of the concentration of the reference material is unknown to the laboratory at the time of the analysis.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Person” means an individual, corporation, company, association, partnership, State, unit of local government, or federal agency.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“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.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Point of disinfectant application” is the point at which the disinfectant is applied and downstream of which water is not subject to recontamination by surface water runoff.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Point-of-entry treatment device” is a treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in the drinking water distributed throughout the house or building.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Point-of-use treatment device” is a treatment device applied to a single tap used for the purpose of reducing contaminants in drinking water at that one tap.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Public Health” means the Illinois Department of Public Health.

BOARD NOTE: The Department of Public Health (“Public Health”) regulates non-community water supplies (“non-CWSs”, including non-transient, non-community water supplies (“NTNCWSs”) and transient non-community water supplies (“transient non-CWSs”). For the purposes of regulation of supplies by Public Health by reference to this Part, “Agency” shall mean Public Health.

“Public water system” or “PWS” means a system for the provision to the public of ~~pipe~~ water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen 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 community water system (CWS) or a non-community water system (non-CWS). Such term includes:

Any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system; and

Any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system.

BOARD NOTE: Derived from 40 CFR 141.2 (1998). Where used in this Subpart F, “public water supply” means the same as “public water system.”

“Radioactive contaminants” refers to that group of contaminants designated “radioactive contaminants” in USEPA regulatory discussions and guidance documents. “Radioactive contaminants” include tritium, strontium-89, strontium-90, iodine-131, cesium-134, gross beta emitters, and other nuclides.

BOARD NOTE: Derived from 40 CFR 141.25(c) Table B (1998). These radioactive contaminants must be reported in Consumer Confidence Reports under Subpart U when they are detected above the levels indicated in Section 611.720(c)(3).

“Reliably and consistently” below a specified level 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 shall 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 contaminant detected that may influence the quality of water.

BOARD NOTE: Derived from 40 CFR 141.23(b)(9), 141.24(f)(11)(ii), and 141.24(f)(11)(iii) (1998).

“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.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Repeat compliance period” means a compliance period that begins after the initial compliance period.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Representative” means that a sample must reflect the quality of water that is delivered to consumers under conditions when all sources required to supply water under normal conditions are in use and all treatment is properly operating.

“Residual disinfectant concentration” (“RDC” or “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.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“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 USC 300f et seq.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Sanitary survey” means an onsite review of the water source, facilities, equipment, operation and maintenance of a public water system (PWS) for the purpose of evaluating the adequacy of such source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Sedimentation” means a process for removal of solids before filtration by gravity or separation.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“SEP” means special exception permit (Section 611.110).

“Service connection,” as used in the definition of public water system, does not include a connection to a system that delivers water by a constructed conveyance other than a pipe if any of the following is true:

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

The Agency determines by issuing a SEP that alternative water for residential use or similar uses for drinking and cooking is provided to achieve the equivalent level of public health protection provided by the applicable national primary drinking water regulations; or

The Agency determines by issuing a SEP 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 protection provided by the applicable national primary drinking water regulations.

BOARD NOTE: Derived from 40 CFR 141.2 (1998). See sections 1401(4)(B)(i)(II) and (4)(B)(i)(III) of SDWA (42 USC 300f(4)(B)(i)(II) & (4)(B)(i)(III) (1996)).

“Slow sand filtration” means a process involving passage of raw water through a bed of sand at low velocity (generally less than 0.4 meters per hour (m/h)) resulting in substantial particulate removal by physical and biological mechanisms.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“SOC” or “Synthetic organic chemical contaminant” refers to that group of contaminants designated as “SOCs”, or “synthetic organic chemicals” or “synthetic organic contaminants”, in USEPA regulatory discussions and guidance documents. “SOCs” include alachlor, aldicarb, aldicarb sulfone, aldicarb sulfoxide, atrazine, benzo[a]pyrene, carbofuran, chlordane, dalapon, dibromoethylene (ethylene dibromide or EDB), dibromochloropropane (DBCP), di(2-ethylhexyl)-adipate, di(2-ethylhexyl)phthalate, dinoseb, diquat, endothall, endrin, glyphosate, heptachlor, heptachlor epoxide, hexachlorobenzene, hexachlorocyclopentadiene, lindane, methoxychlor, oxamyl, pentachlorophenol, picloram, simazine, toxaphene, polychlorinated biphenyls (PCBs), 2,4-D, 2,3,7,8-TCDD, and 2,4,5-TP.

“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, where the system or the residential users or similar users of the system comply with either of the following exclusion conditions:

The Agency determines by issuing a SEP that alternative water is provided for residential use or similar uses for drinking or cooking to achieve the equivalent level of public health protection provided by the applicable national primary drinking water regulations; or

The Agency determines by issuing a SEP 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 protection provided by the applicable national primary drinking water regulations.

BOARD NOTE: Derived from 40 CFR 141.2 (1998) and sections 1401(4)(B)(i)(II) and (4)(B)(i)(III) of SDWA (42 USC 300f(4)(B)(i)(II) & (4)(B)(i)(III) (1996)).

“Standard sample” means the aliquot of finished drinking water that is examined for the presence of coliform bacteria.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Subpart B system” means a public water system that uses surface water or groundwater under the direct influence of surface water as a source and which is subject to the requirements of Subpart B and the analytical and monitoring requirements of Sections 611.531, 611.532, 611.533, 611.Appendix B, and 611.Appendix C of this Part.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Supplier of water” or “supplier” means any person who owns or operates a public water system (PWS). This term includes the “official custodian”.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“Surface water” means all water that is open to the atmosphere and subject to surface runoff.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“SUVA” means specific ultraviolet absorption at 254 nanometers (nm), which is an indicator of the humic content of water. It is a calculated parameter obtained by dividing a sample’s

ultraviolet absorption at a wavelength of 254 nm (UV₂₅₄) (in m⁻¹) by its concentration of dissolved organic carbon (in mg/L).

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“SWS” means “surface water system”, a public water supply (PWS) that uses only surface water sources, including “groundwater under the direct influence of surface water”.

BOARD NOTE: Drawn from 40 CFR 141.23(b)(2) and 141.24(f)(2) note (1998).

“System with a single service connection” means a system that supplies drinking water to consumers via a single service line.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“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.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

“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: Derived from the definition of “total trihalomethanes” in 40 CFR 141.2 (1998).

(See the definition of THMs for a listing of the four compounds that USEPA considers TTHMs to comprise.)

“Transient, non-community water system” or “transient non-CWS” means a non-CWS that does not regularly serve at least 25 of the same persons over six months of the year.

BOARD NOTE: Derived from 40 CFR 141.2 (1998). The federal regulations apply to all “public water systems”, which are defined as all systems having at least 15 service connections or regularly serving water to at least 25 persons. (See 42 USC 300f(4).) The Act mandates that the Board and the Agency regulate “public water supplies”, which it defines as having at least 15 service connections or regularly serving 25 persons daily at least 60 days per year. (See Section 3.28 of the Act [415 ILCS 5/3.28].) The Department of Public Health regulates transient non-community water systems.

“Treatment” means any process that changes the physical, chemical, microbiological, or radiological properties of water, is under the control of the supplier, and is not a “point of use” or “point of entry treatment device” as defined in this Section. “Treatment” includes, but is not limited to, aeration, coagulation, sedimentation, filtration, activated carbon treatment, disinfection, and fluoridation.

“Trihalomethane” or “THM” means one of the family of organic compounds, named as derivatives of methane, in which three of the four hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure. The THMs are:

Trichloromethane (chloroform),

Dibromochloromethane,

Bromodichloromethane, and

Tribromomethane (bromoform)

BOARD NOTE: Derived from the definitions of "total trihalomethanes" and "trihalomethanes" in 40 CFR 141.2 (1998).

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

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

"Uncovered finished water storage facility" is a tank, reservoir, or other facility that is open to the atmosphere and which is used to store water that will undergo no further treatment except residual disinfection.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

"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", "volatile organic chemicals", or "volatile organic contaminants", in USEPA regulatory discussions and guidance documents. "VOCs" include benzene, dichloromethane, tetrachloromethane (carbon tetrachloride), trichloroethylene, vinyl chloride, 1,1,1-trichloroethane (methyl chloroform), 1,1-dichloroethylene, 1,2-dichloroethane, cis-1,2-dichloroethylene, ethylbenzene, monochlorobenzene, o-dichlorobenzene, styrene, 1,2,4-trichlorobenzene, 1,1,2-trichloroethane, tetrachloroethylene, toluene, trans-1,2-dichloroethylene, xylene, and 1,2-dichloropropane.

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

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

BOARD NOTE: Derived from 40 CFR 141.2 (1998).

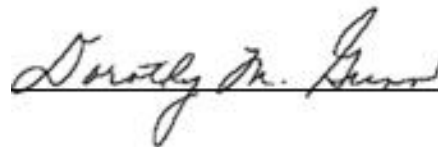
"Wellhead Protection Program" means the wellhead protection program for the State of Illinois, approved by USEPA under Section 1428 of the SDWA.

BOARD NOTE: Derived from 40 CFR 141.71(b) (1998). The wellhead protection program includes the "groundwater protection needs assessment" under Section 17.1 of the Act, and 35 Ill. Adm. Code 615 et seq.

(Source: Amended at 23 Ill. Reg. _____, effective _____)

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, do hereby certify that the above proposed opinion and order was adopted on the 23rd day of September 1999 by a vote of 6-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board