

567—81.1(455B) Definitions. In addition to the definitions in Iowa Code section 455B.211, the following definitions shall apply to this chapter.

“*Activated sludge system*” means a biological wastewater treatment process in which a mixture of wastewater and sludge floc, produced in a raw or settled wastewater by the growth of microorganisms, is agitated and aerated in the presence of a sufficient concentration of dissolved oxygen, followed by sedimentation. Examples include, but are not limited to, conventional activated sludge systems, extended aeration activated sludge systems, oxidation ditches, and sequencing batch reactors.

“*Advanced aerated lagoon system*” means an aerated lagoon system that has been augmented by adding other treatment processes. Examples include, but are not limited to, covered lagoon systems with enhanced aeration and mixing, the addition of fixed film processes to the lagoon process, or the utilization of algal-based treatment processes.

“*Aerated lagoon system*” means a lagoon system which utilizes aeration to enhance oxygen transfer and mixing in the cell.

“*Aeration*” means the process of initiating contact between air and water. Examples include, but are not limited to, spraying the water in the air, bubbling air through the water, or forcing the air into the water by pressure.

“*Average daily pumpage*” means the total quantity of water pumped during the most recent one-year period of record divided by 365 days.

“*Chlorination*” means the addition of a chlorine compound or chlorine gas to water to inactivate pathogenic organisms.

“*Classification*” means the type of plant or distribution system: wastewater treatment plants, water treatment plants, or water distribution systems.

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

“*Community water system (CWS)*” means a public water supply system which has at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

“*Continuing education unit (CEU)*” means ten contact hours of participation in an organized education experience approved by an accredited college, university, technical institute, or issuing agency, or by the department, and must be directly related to the subject matter of the particular certificate to which the credit is being applied.

“*Directly related post-high school education*” means post-high school education in chemistry, microbiology, biology, math, engineering, water, wastewater, or other curriculum pertaining to plant and distribution system operation.

“*Director*” means the director of the department of natural resources or a designee.

“*Direct responsible charge (DRC)*” means, where shift operation is not required, accountability for and performance of active, daily on-site operation of the plant or distribution system, or of a major segment of the plant or distribution system. Where shift operation is required, “direct responsible charge” means accountability for and performance of active, daily on-site operation of an operating shift, or a major segment of the plant or distribution system. A city manager, superintendent of public works, city clerk, council member, business manager, or other administrative official shall not be deemed to have direct responsible charge of a plant or distribution system unless this person’s duties include the active, daily on-site operation of the plant or distribution system. On-site operation may not necessarily mean full-time attendance at the plant or distribution system.

“*Direct surface water filtration*” means a water treatment system that applies surface water and groundwater under the influence (influenced groundwater as defined in rule 567—40.2(455B)) directly to the filters after chemical treatment consisting of coagulation and flocculation or chemical treatment consisting of coagulation. This type of system eliminates the sedimentation unit process.

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

“*Electrodialysis*” means the demineralization of water by the removal of ions through special membranes under the influence of a direct-current electric field.

“Fixed film biological treatment” means a treatment process in which wastewater is passed over a media onto which are attached biological organisms capable of oxidizing the organic matter, normally followed by sedimentation. Examples include, but are not limited to, trickling filters, rotating biological contactors, packed towers and activated filters.

“Fluoridation” means the addition of fluoride to produce the optimum fluoride concentration in water.

“Grade” means one of seven certification levels, designated as A, W, I, IL, II, III, or IV.

“Ion exchange” means the process of using ion exchange materials such as resin or zeolites to remove undesirable ions from water and substituting acceptable ions, for example, ion exchange for nitrate removal or ion exchange for softening.

“Issuing agency” means a professional, technical/educational organization authorized by the department to provide continuing education for certification renewal or upgrade in accordance with the commitments and guidelines detailed in the written issuing agency agreement and procedures.

“Military service” means honorably serving on federal active duty, state active duty, or national guard duty, as defined in Iowa Code section 29A.1; in the military services of other states, as provided in 10 U.S.C. Section 101(c); or in the organized reserves of the United States, as provided in 10 U.S.C. Section 10101.

“Military service applicant” means an individual requesting credit toward certification for military education, training, or service obtained or completed in military service.

“Nontransient noncommunity water system (NTNC)” means a public water system other than a community water system which regularly serves at least 25 of the same persons four hours or more per day for four or more days per week for 26 or more weeks per year.

“Operating shift” means a specified period of time when an operator is present to conduct testing or evaluation to control operations of the plant or distribution system, to make process control changes, and to be responsible for the repair or maintenance of a plant or distribution system. An operating shift may include on-call shifts.

“Operator-in-charge” means a person or persons on site in direct responsible charge for a plant or distribution system. A city manager, superintendent of public works, city clerk, council member, business manager, or other administrative official shall not be deemed to be the operator-in-charge of a plant or distribution system unless this person’s duties include the active, daily on-site operation of the plant or distribution system. On-site operation may not necessarily mean full-time attendance at the plant or distribution system.

“Plant” means those facilities which are identified as either a water treatment plant, defined as that portion of the water supply system which in some way alters the physical, chemical, or bacteriological quality of the water, or a wastewater treatment plant, defined as the facility or group of units used for the treatment of wastewater from public sewer systems and for the reduction and handling of solids removed from such wastes.

“Population equivalent” for a wastewater treatment plant means the calculated number of people who would contribute the same biochemical oxygen demand (BOD) per day as the system in question, assuming that each person contributes 0.167 pounds of five-day, 20°C, BOD per day.

“Post-high school education” means credit received for completion of courses given or cosponsored by an accredited college, university, technical institute, or issuing agency. Courses offered by regulatory agencies may also be recognized as post-high school education. One year of post-high school education is 30 semester hours or 45 quarter hours or 45 CEUs of credit.

“Primary treatment” means a treatment process designed to remove organic and inorganic settleable solids from wastewater by the physical process of sedimentation.

“Public water system certificate” means a certificate issued by the department certifying that an operator has successfully completed the certification requirements of this chapter. The certificate specifies the grades and classifications for which the certificate is valid.

“Reverse osmosis” means the process in which external pressure is applied to mineralized water against a semipermeable membrane to effectively reduce total dissolved solids (TDS) and radionuclides content as the water is forced through the membrane.

“Rural water district” means a water supply incorporated and organized as such pursuant to Iowa Code chapter 357, 357A or 358.

“Shift operator” means the operator on site who has responsibility for making process control changes and adjustments to the operation, repair, and maintenance of a plant or distribution system during any operating shift. Duties include testing or evaluation to control operations of the plant or distribution system.

“Stabilization” means the addition of chemical compounds to water to maintain an ionic equilibrium whereby the water is not in a depository or corrosive state.

“Veteran” means an individual who meets the definition of “veteran” in Iowa Code section 35.1(2).

“Waste stabilization lagoon” means an excavation designed and constructed to receive raw or pretreated wastewater in which stabilization is accomplished by several natural self-purification processes. This definition includes both anaerobic and aerobic lagoons.

“Wastewater treatment plant” means the facility or group of units used for the treatment of wastewater from public sewer systems and for the reduction and handling of solids removed from such wastes.

“Water distribution system” means that portion of the water supply system in which water is conveyed from the water treatment plant or other supply point to the premises of the consumer, including storage facilities and pumping stations. For the purposes of this chapter, a water distribution system does not include individual service lines to the premises of the consumer, which are not under the control of the system.

“Water supply system” means the system of pipes, structures, and facilities through which water for a public water supply is obtained, treated, sold or distributed for human consumption or household use.

“Water treatment plant” means that portion of the water supply system which in some way alters the physical, chemical, or microbiological quality of the water.

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