

567—39.2(455B) Definitions. In addition to the definitions in 567—Chapter 40, 567—Chapter 49, 567—Chapter 82, and Iowa Code sections 455B.101, 455B.171, 455B.190 and 455B.190A, the following definitions shall apply to this chapter:

“*Agricultural lime*” means all calcium and magnesium products sold for agricultural purposes in the carbonate form, not including quicklime or hydrated lime, of a size comparable with that of crushed stone, gravel, or pea gravel.

“*Approved*” means accepted or acceptable under an applicable specification stated or cited in these rules.

“*Aquifer*” means a water-bearing geologic formation capable of yielding a usable quantity of water to a well or spring.

“*Bentonite*” means a naturally occurring, highly plastic, colloidal clay composed largely of the mineral montmorillonite that expands upon wetting.

“*Bentonite grout*” or “*slurry*” means a mixture of 10 percent processed bentonite (by weight) and water that is free of contaminants, turbidity, and settleable solids.

“*Bentonite pellets*” means a form of processed bentonite that can be used directly for sealing applications in well plugging operations.

“*Bentonite products*” means the forms of bentonite that can be used for sealing material in wells, including graded bentonite, bentonite pellets, and bentonite grout.

“*Capped*” means the application of a layer of sealing material at the top of the well casing.

“*Casing*” means a tubular retaining structure installed in an excavated hole to maintain the well opening.

“*Concrete*” means a mixture of one sack (94 pounds) of Portland cement, up to but not exceeding an equal amount by volume of sand and up to but not exceeding an equal amount by volume of gravel or crushed stone and not more than six gallons of water that is free of contaminants, turbidity, and settleable solids.

“*Confined aquifer*” means an aquifer in which the groundwater is under pressure greater than atmospheric pressure. The static water level in a well tapping a confined aquifer rises to a level above the top of the aquifer.

“*Crushed stone*” means stone (predominantly limestone), crushed and well graded, with 100 percent passing a 1-inch sieve, in accordance with the 1984 edition of Iowa Department of Transportation (DOT) specification No. 4120.04 for Class A crushed stone.

“*Frost pit*” means a sunken area located directly over or within four feet of a well and used to house the equipment for discharging water from a well into the water system.

“*Graded bentonite*” means bentonite that is crushed and sized for pouring and easy handling. Like processed bentonite, it swells when hydrated with water and will form a plastic, essentially impermeable mass.

“*Gravel*” means stone screened from river sand or quarried, with 100 percent passing a ¾-inch sieve, in accordance with the 1984 edition of the Iowa DOT specification No. 4120.02 for Class B gravel.

“*Groundwater*” means any water beneath the surface of the earth.

“*Grout*” means a material used to seal the annular space between the casing and borehole or between casings, or to seal wells during plugging. Approved grouts include bentonite products, concrete, neat cement, or sand cement grout.

“*Limestone*” means sedimentary rock that contains greater than 50 percent calcium carbonate and has a strong reaction with hydrochloric acid (HCL).

“*Neat cement*” means a mixture of one sack (94 pounds) of Portland cement to not more than six gallons of water that is free from contaminants, turbidity, or settleable solids. Bentonite up to 2 percent by weight of cement may be added to reduce shrinkage.

“*Pea gravel*” means gravel sized from ⅛ inch to ⅜ inch in diameter.

“*Processed bentonite*” means bentonite that has been kiln-dried and processed into pellets for direct use in well sealing applications or into powder or coarse granules for use in bentonite grout for sealing.

“*Rock*” means stone screened from river sand or quarried, free of debris, foreign matter, and any toxic or agricultural chemical residue, up to 2½ inches in diameter.

“*Sand*” means clean, medium-textured quartz (concrete sand), at least 25 percent with diameters between 0.25 and 2.0 mm, less than 35 percent with diameters between 0.05 and 0.25 mm, and less than 5 percent with diameters between 0.002 and 0.05 mm.

“*Sand cement grout*” means a mixture of one sack (94 pounds) of Portland cement, an equal amount by volume of sand and not more than six gallons of water that is free from contaminants, turbidity, and settleable solids.

“*Sandpoint well*” means a small-diameter water well constructed by joining a screened drive point with lengths of pipe and driving the assembly into a shallow sand and gravel aquifer.

“*Sealing*” means the proper placement of sealing materials into an abandoned well to seal off flow into, out of, or between aquifers.

“*Standby well*” means a water well that is temporarily taken out of service with the expectation of being returned to service at a future date.

“*Static water level*” means the water level in a water well or aquifer when the well is not flowing or being pumped, sometimes referred to as the water line. The static water level for an abandoned well is determined just prior to commencing plugging operations.

“*Tremie pipe*” means a device, usually a small-diameter pipe, that carries grouting materials to the bottom of the hole and that allows pressure grouting from the bottom up without introduction of air pockets.

“*Unconfined aquifer*” means an aquifer in which the static water level does not rise above the top of the aquifer (i.e., the pressure of the water in the aquifer is approximately equal to that of the atmosphere).

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