

## Title 122 - NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY

### Chapter 1 - DEFINITIONS

When a defined term appears in a definition, the defined term is placed within quotation marks as an aid to readers.

001 "Abandoned well" shall mean a well whose use has been permanently discontinued or which is in a state of disrepair such that it cannot be used for its intended purpose or for observation purposes.

002 "Acidizing" shall mean the injection of acid through the borehole or "well" into a "formation" to increase permeability and porosity by dissolving the acid-soluble portion of the rock constituents.

003 "Administrator" shall mean the Administrator of the United States Environmental Protection Agency, or an authorized representative.

004 "Annular space" shall mean the space between the well casing and the well bore or the space between two or more strings of well casing.

005 "Application" shall mean the standard forms used by the "Department" for applying for a permit, including any additions, revisions or modifications to the forms.

006 "Aquifer" shall mean a geological formation, group of formations, or part of a formation that is capable of yielding a useable amount of water to a well, spring, or other point of discharge.

007 "Area of review" shall mean the area surrounding an "injection well" including the "zone of endangering influence" and the area beyond of not less than two miles in radius as described in Chapter 14.

008 "Bentonite seal" shall mean a very viscous bentonite based material used as a seal or plug.

009 "Casing" shall mean a retaining structure of varying width or length, which is installed into a well to maintain the structural integrity of that well.

010 "Catastrophic collapse" shall mean the sudden and utter failure of overlying "strata" caused by removal of underlying materials.

011 "Cementing" shall mean the operation whereby a cement slurry or other approved material is pumped into a drilled hole and/or forced behind the casing.

012 "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA).

013 "Cesspool" shall mean a "drywell" that receives untreated sanitary waste, and which sometimes has an open bottom and/or perforated sides.

014 "Closed Loop Heat Pump Well" shall mean a well constructed for the purpose of installing the underground closed loop necessary to circulate fluid from a closed loop heat pump system.

015 "Community water well" shall mean a water well that is part of a public water supply system that supplies drinking water to at least fifteen (15) service connections used by year round residents or

regularly supplies drinking water to twenty-five (25) year round residents.

016 "Confining bed" shall mean a body of impermeable or distinctly less permeable material stratigraphically adjacent to one or more aquifers.

017 "Confining zone" shall mean a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement above or below an injection zone.

018 "Contaminant" shall mean any physical, chemical, biological, or radiological substance or matter in water.

019 "Council" shall mean the Environmental Quality Council.

020 "CWA" shall mean the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Amendments of 1972) Pub.L. 92-500, as amended by Pub.L. 95-217 and Pub.L. 95-576; 33 U.S.C. 1251 et seq.

021 "Department" is the Department of Environmental Quality.

022 "Director" is the Director of the Department of Environmental Quality or the Director's designated representative.

023 "Domestic water well" shall mean a well providing water to any water supply system furnishing water for human consumption other than a public water supply system.

024 "Drilling mud" shall mean a fluid circulated into the borehole while drilling by rotary methods.

025 "Drywell" shall mean a well, other than a "subsurface fluid distribution system", completed above the water table where its bottom and sides are typically dry except when receiving fluids.

026 "Dwelling" shall mean a building, structure, or place used or intended to be used for human occupancy as a single or multi-family residence and which has the capacity to generate "sanitary wastewater" flow equivalent to or less than 20 persons, or a fluid flow equal to or less than 1,000 gallons per day.

027 "Effective date" shall mean the date five days after filing with the Nebraska Secretary of State.

028 "Environmental Protection Agency (EPA)" shall mean the United States Environmental Protection Agency.

029 "Establishment" shall mean a building, structure, house, or place which has the capacity to generate "sanitary wastewater" flow for greater than 20 persons, a fluid flow greater than 1,000 gallons per day, non-domestic wastewater, or serves as a restaurant or food preparations facility.

030 "Exempted aquifer" shall mean an aquifer or its portion that meets the definition of "underground source of drinking water" which has been exempted according to Chapter 5.

031 "Existing injection well" shall mean an "injection well(s)" that is subject to regulation under the UIC program.

032 "Fault" shall mean a surface or zone of rock fracture along which there has been displacement.

033 "Flow rate" shall mean the volume per time unit given to the flow of gases or other fluid substance which emerges from an orifice, pump, turbine or passes along a conduit or channel.

034 "Fluid" shall mean material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state.

035 "Formation" shall mean a body of rock characterized by a degree of lithologic homogeneity which is prevailing, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.

036 "Formation fluid" shall mean "fluid" present in a "formation" under natural conditions as opposed to introduced fluids.

037 "Generator" shall mean any person, by site, whose act or process produces "hazardous waste".

038 "Ground Water" shall mean water occurring beneath the surface of the ground that fills available openings in rock or soil materials such that they may be considered saturated.

039 "Hazardous waste" shall mean a "waste", which because of its quantity, concentration, or physical, chemical, or infectious characteristics may(a)

cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (b)

pose a substantial present or potential hazard to human or animal health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

040 "Hazardous waste management facility" ("HWM facility") shall mean all contiguous land, and structures, other appurtenances, and improvements on the land used for treatment, storage, or disposal of hazardous waste.

041 "Injection well" shall mean a "well" into which "fluids" are injected.

042 "Injection zone" shall mean a geological "formation", group of formations, or part of a formation receiving fluids through a well.

043 "Large Capacity" shall mean having a capability to accept sanitary waste generated by greater than 20 persons, or the fluid flow of greater than 1,000 gallons per day.

044 "Lithology" shall mean the description of rocks on the basis of their physical and chemical characteristics.

045 "Log" - see Well log.

046 "Mineral production well" shall mean a well drilled to extract "mineral resources" or energy including, but not limited to, a well designed for:

046.01 Mining of sulfur by the Frasch process,

046.02 Solution mining of sodium chloride, potash, phosphate, copper, uranium, or any other mineral which can be mined by this process,

046.03 In-situ combustion of coal, tar sands, oil shale, or any other fossil fuel, or

046.04 Recovery of geothermal energy for the production of electric power.

046.05 Mineral production well shall exclude any well designed for conventional oil or gas production, for use of fluids to promote enhanced recovery of oil or natural gas, for injection of hydrocarbons for storage purposes or for environmental monitoring purposes.

047 "Mineral resource" shall mean mineral substances, except oil and gas found in the form of consolidated rock or unconsolidated material, commingled, in solution, or otherwise occurring beneath the surface or in the waters of the State from which any product useful to humans may be produced, extracted, or obtained.

048 "Motor vehicle" shall mean mechanized equipment used in agriculture, construction, industrial activities, maintenance, recreation, or transportation.

049 "Non-community water well" shall mean any water well that is part of a public water supply system that supplies drinking water to public water supply that is not a community water supply system.

050 "Owner or operator" means the owner or operator of any facility or activity subject to regulation under this title.

051 "Packer" shall mean a device lowered into a well, which can be expanded or compressed to produce a seal.

052 "Permit" shall mean a control document issued to implement the requirements of these rules and regulations.

053 "Person" shall mean any individual, partnership, association, public or private corporation, trustee, receiver, assignee, agent, municipality, or other governmental subdivision, public agency, officer, or governing or managing body of any municipality, governmental subdivision, or public agency, or any other legal entity except the Department of Environmental Quality.

054 "Pitless adaptor or unit" shall mean an underground assembly for a well which attaches directly to the casing and provides watertight subsurface connections without the use of a pit and includes the underground distributor and steel extension to the ground surface as well as an adapter which is clamped to the well casing which already extends to the ground surface.

055 "Plug or Plugging" shall mean the act or process of sealing the flow of fluid into or out of a formation through a borehole or "well" penetrating that formation.

056 "Plugging record" shall mean a written documentation of permanent or temporary abandonment of test, exploration and injection wells.

057 "Point of Injection" shall mean the last accessible sampling point prior to fluids being released into the subsurface environment.

058 "Pollution" shall mean air pollution, land pollution and water pollution as defined in the Neb. Rev. Stat. § 81-1502.

059 "Pressure" shall mean the total load or force per unit area acting on a surface.

060 "RCRA" shall mean the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (Pub.L. 94-580, as amended by Pub.L. 95-609, 42 U.S.C. 6901 et seq).

061 "Restoration" shall mean the employment, during and after an activity, of procedures reasonably designed to control, minimize, and eliminate hazards to humans, animals, and the environment, to protect the public health and welfare and air, land, water, and subsurface resources, and to return each resource to a quality of use consistent with the "uses for which the resource was suitable" prior to the activity. Restoration shall be considered not accomplished if, after subsurface operations end, an aquifer is unsuitable for any use for which it was suitable before the subsurface operations began or if the post-activity water quality is such that treatment is preferable hydrologically, as determined by the Department in the exercise of its discretion, for the conduct of any such use.

062 "Sanitary Waste" shall mean waste fluid originating solely from humans or human activities, such as wastes collected from toilets, showers, wash basins, sinks used for cleaning domestic areas, sinks used for food preparation, clothes washing operations, and sinks or washing machines where food and beverage serving dishes, glasses, and utensils are cleaned. Sources of these wastes may include commercial facilities, and industrial facilities provided the waste is not mixed with industrial waste.

063 "Sanitary well cap" shall mean a cover fitted to the top of a well casing to seal the opening between the casing and the drop pipe to prevent the entrance of contaminants.

064 "SDWA" shall mean the Safe Drinking Water Act (Pub.L. 95-523, as amended by Pub.L. 95-190, 42 U.S.C. 300(f) et seq.)).

065 "Septic System" shall mean a "well" that is used to place waste fluid below the surface and is typically comprised of a septic tank and "subsurface fluid distribution system".

066 "Site" shall mean the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

067 "Sludge" shall mean the accumulated settled solids deposited from wastewater and commingled with wastewater to form a semi-liquid mass.

068 "Solid waste" shall mean any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, and mining operations, and from community activities, but does not include solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the Federal Clean Water Act, as amended, 33 U.S.C. 1251 et seq., or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 68 Stat. 923.

069 "Stratum" (plural strata) shall mean a single sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock material.

070 "Subsidence" shall mean the lowering of the natural land surface in response to: earth movements;

lowering of fluid pressure; removal of underlying supporting material by mining or solution of solids, either artificially or from natural causes; compaction due to wetting (hydrocompaction); oxidation of organic matter in soils; or added load on the land surface.

071 "Subsurface disposal" shall mean the utilization of the soil or sediments for subsequent absorption or placement of waste fluids.

072 "Subsurface fluid distribution system" shall mean an assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground.

073 "Surface casing" shall mean the string of well casing to be installed in the well to protect "USDW (s)" and structural integrity of the well.

074 "Surface completion" shall mean the construction or use of any mechanical, physical, or natural element, or any combination, used to protect a well at the surface from contaminants and/or physical damage.

075 "TDS" shall mean total dissolved solids, the concentration of all dissolved matter and is generally expressed in milligrams per liter (mg/l).

076 "Trade Secret" shall mean a formula, pattern, device or compilation of information which is used in one's business and which is one opportunity to obtain advantage over competitors who do not know or use it. A plan or process, tool, mechanism or compound known only to its owner and those of his employees to whom it is necessary to confide. A secret formula or process not patented, but known only to certain individuals using it and compounding some article of trade having a commercial value.

077 "Tubing" shall mean a pipe placed within the casing of a well through which the injected materials are placed.

078 "UIC" shall mean the State Underground Injection Control program.

079 "Underground injection" shall mean a "well injection."

080 "USDW" shall mean underground source of drinking water, an "aquifer" or its portion:

080.01 Which supplies drinking water for human consumption; or

080.02 In which the ground water contains fewer than 10,000 mg/l "total dissolved solids;" and

080.03 Which is not an "exempted aquifer."

081 "Uppermost aquifer" shall mean a geologic formation nearest the ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer.

082 "Uses for which the resource was suitable" shall mean, with respect to in situ mining, those uses of the premining resource which are or could have reasonably been developed considering established standards and the premining quality conditions.

083 "Waste" shall mean sewage, industrial waste, and all other liquid, gaseous, solid, radioactive, or other substances which may pollute or have the potential to pollute any air, land, or waters of the State.

084 "Well" shall mean a bored, drilled, driven, dug, or otherwise constructed excavation whose depth is greater than its largest surface dimension.

085 "Well injection" shall mean the subsurface placement of fluids through the use of a "well".

086 "Well log" shall mean a record by depth of the "lithology" surrounding a well obtained from "formation" samples and/or geophysical methods.

087 "Well plug" shall mean a seal installed in a borehole or well to prevent movement of fluids.

088 "Well record" shall mean a concise statement of the available data regarding a well.

089 "Well stimulation" shall mean several processes used to clean the well bore, enlarge channels, and increase pore space in the interval to be injected thus making it possible for fluids to move more readily into the formation.

090 "Well monitoring" shall mean the measurement, by on-site instruments or laboratory methods, of the quality and/or quantity of water in a well.

091 "Zone of endangering influence" shall mean the area surrounding an "injection well as described in Chapter 14 of this Title.

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