

Freshwater—“Underground source of drinking water.”

Ground water—water below the land surface in a zone of saturation.

Injection well—a well into which fluids are being injected.

Injection zone—a geological formation, group of formations, or part of a formation receiving fluids through a well.

Lithology—the description of rocks on the basis of their physical and chemical characteristics.

Owner/operator—the owner or operator of any facility or activity subject to regulation under the Osage UIC program.

Packer—a device lowered into a well to produce a fluid-tight seal within the casing.

Permit—an authorization issued by EPA to implement UIC program requirements. Permit does not include the UIC authorization by rule or any permit which has not yet been the subject of final Agency action.

Plugging—the act or process of stopping the flow of water, oil or gas into or out of a formation through a borehole or well penetrating that formation.

Pressure—the total load or force per unit area acting on a surface.

Regional Administrator—the Regional Administrator of Region 6 of the United States Environmental Protection Agency, or an authorized representative.

Subsidence— 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 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.

Underground source of drinking water— an aquifer or its portion:

- (a)(1) Which supplies any public water system; or
- (2) Which contains a sufficient quantity of ground water to supply a public water system; and
 - (i) Currently supplies drinking water for human consumption; or
 - (ii) Contains fewer than 10,000 mg/l total dissolved solids; and

(b) Which is not an exempted aquifer.
USDW—underground source of drinking water.

Well—a bored, drilled, or driven shaft, or a dug hole whose depth is greater than the largest surface dimension.

Well injection—the subsurface emplacement of fluids through a bored, drilled, or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension.

Well workover—any reentry of an injection well; including, but not limited to, the pulling of tubular goods, cementing or casing repairs; and excluding any routine maintenance (e.g. re-seating the packer at the same depth, or repairs to surface equipment).

§ 147.2903 Prohibition of unauthorized injection.

(a) Any underground injection, except as authorized by permit or rule issued under the UIC program, is prohibited. The construction or operation of any well required to have a permit is prohibited until the permit has been issued.

(b) No owner or operator shall construct, operate, maintain, convert, plug, or abandon any injection well, or conduct any other injection activity, in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause the violation of any primary drinking water regulation under 40 CFR part 142 or may otherwise adversely affect the health of persons. The applicant for a permit shall have the burden of showing that the requirements of this paragraph are met.

(c) Injection between the outermost casing protecting underground sources of drinking water and the well bore is prohibited.

§ 147.2904 Area of review.

(a) The area of review for an injection well or project will be a fixed radius of one-fourth of a mile from the well, field or project.

(b) The zone of endangering influence is the lateral area around the injection well or project in which the injection zone pressures may cause movement of fluid into an underground source of