

remainder of this subpart. Injection well owners and operators, and EPA shall comply with these requirements.

(b) *Effective dates.* The effective date of the UIC program for non-Indian lands of the Trust Territory of the Pacific Islands is June 25, 1984. The effective date for the Indian lands is November 25, 1988.

[53 FR 43093, Oct. 25, 1988, as amended at 56 FR 9422, Mar. 6, 1991]

**§ 147.2852 Aquifer exemptions. [Reserved]**

**Subpart GGG—Osage Mineral Reserve—Class II Wells**

**AUTHORITY:** Safe Drinking Water Act, 42 U.S.C. 300h.

**SOURCE:** 49 FR 45309, Nov. 15, 1984, unless otherwise noted.

**§ 147.2901 Applicability and scope.**

This subpart sets forth the rules and permitting requirements for the Osage Mineral Reserve, Osage County, Oklahoma, Underground Injection Control Program. The regulations apply to owners and operators of Class II injection wells located on the Reserve, and to EPA.

**§ 147.2902 Definitions.**

Most of the following terms are defined in §144.3, and have simply been reproduced here for the convenience of the reader. This section also includes definitions of some terms unique to the Osage program. Terms used in this subpart are defined as follows:

*Administrator*—the Administrator of the United States Environmental Protection Agency, or an authorized representative.

*Aquifer*—a geologic formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

*BIA*—The “Bureau of Indian Affairs,” United States Department of Interior.

*Casing*—a pipe or tubing of varying diameter and weight, lowered into a borehole during or after drilling in order to support the sides of the hole and, thus, prevent the walls from caving, to prevent loss of drilling mud into porous ground, or to prevent water,

gas, or other fluid from entering the hole.

*Cementing*—the operation whereby a cement slurry is pumped into a drilled hole and/or forced behind the casing.

*Class II Wells*—wells which inject fluids:

(a) Which are brought to the surface in connection with conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters would be classified as a hazardous waste at the time of injection;

(b) For enhanced recovery of oil or natural gas; and

(c) For storage of hydrocarbons which are liquid at standard temperature and pressure.

*Existing Class II Wells*—wells that were authorized by BIA and constructed and completed before the effective date of this program.

*New Class II Wells*—wells constructed or converted after the effective date of this program, or which are under construction on the effective date of this program.

*Confining bed*—a body of impermeable or distinctly less permeable material stratigraphically adjacent to one or more aquifers.

*Confining zone*—a geologic formation, group of formations, or part of a formation that is capable of limiting fluid movement above an injection zone.

*Contaminant*—any physical, chemical, biological, or radiological substance or matter in water.

*Disposal well*—a well used for the disposal of waste into a subsurface stratum.

*EPA*—The United States Environmental Protection Agency.

*Fault*—a surface or zone of rock fracture along which there has been displacement.

*Fluid*—material or substance which moves or flows whether in a semisolid, liquid, sludge, gas or any other form or state.

*Formation*—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.

*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