

Item 8 – Update On Protection of Near Surface Groundwater from Contamination

During the January Board Meeting, I brought to your attention the need to properly protect near surface groundwater from contamination via unlined reserve pits used by some in the oil and gas industry. This issue came to light due to a contamination issue in the eastern portion of Brazos County along the Navasota River.

Following the January meeting, I contacted the Texas Commission on Environmental Quality (TCEQ) inquiring about any enforcement ability they would have over the regulation of reserve pits. This would include requiring a pit to be lined or the process to be self-contained and hauled away. After speaking with the top TCEQ attorney, I was informed TCEQ has no authority over oil and gas. The Texas Railroad Commission (RRC) would be the regulatory agency over all oil and gas activity.

I contacted the RRC speaking with both the legal department and Leslie Savage, assistant director for technical permitting in the oil and gas division. Attached you will find statute under the Texas Administrative Code, Title 16, Part 1, Chapter 3, Rule §3.8 (a)(28) describing pollution and Rule §3.8(b) mandating no pollution of any surface or subsurface water in the state.

The RRC has complete authority to require lining of reserve pits or self-containment in order to prevent pollution. It is the District's responsibility to protect groundwater under Brazos and Robertson counties. I use the following protocol to best protect those groundwater assets:

- Check RRC application database weekly downloading any oil or gas well in Brazos or Robertson counties where a drilling permit has been approved.
- Locate the proposed wells on District aquifer maps to determine if the location is in an area with near surface groundwater.
- If a well is identified to be in such an area, the General Manager will contact the oil and gas entity notifying them of the fact that contamination of the groundwater in the area would be likely if a reserve pit is not lined or drilling fluids are not self-contained and hauled.
- The General Manager will contact the RRC putting them on notice about the proposed location and the probability of groundwater contamination occurring.
- District staff will monitor the drilling process notifying RRC if an unlined reserve pit will be used.

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Texas Administrative Code

TITLE 16

ECONOMIC REGULATION

PART 1

RAILROAD COMMISSION OF TEXAS

CHAPTER 3

OIL AND GAS DIVISION

RULE §3.8

Water Protection

(a) The following words and terms when used in this section shall have the following meanings, unless the context clearly indicates otherwise.

(1) Basic sediment pit--Pit used in conjunction with a tank battery for storage of basic sediment removed from a production vessel or from the bottom of an oil storage tank. Basic sediment pits were formerly referred to as burn pits.

(2) Brine pit--Pit used for storage of brine which is used to displace hydrocarbons from an underground hydrocarbon storage facility.

(3) Collecting pit--Pit used for storage of saltwater or other oil and gas wastes prior to disposal at a disposal well or fluid injection well. In some cases, one pit is both a collecting pit and a skimming pit.

(4) Completion/workover pit--Pit used for storage or disposal of spent completion fluids, workover fluids and drilling fluid, silt, debris, water, brine, oil scum, paraffin, or other materials which have been cleaned out of the wellbore of a well being completed or worked over.

(5) Drilling fluid disposal pit--Pit, other than a reserve pit, used for disposal of spent drilling fluid.

(6) Drilling fluid storage pit--Pit used for storage of drilling fluid which is not currently being used but which will be used in future drilling operations. Drilling fluid storage pits are often centrally located among several leases.

(7) Emergency saltwater storage pit--Pit used for storage of produced saltwater for limited period of time. Use of the pit is necessitated by a temporary shutdown of disposal well or fluid injection well and/or associated equipment, by temporary overflow of saltwater storage tanks on a producing lease or by a producing well loading up with formation fluids such that the well may die. Emergency saltwater storage pits may sometimes be referred to as emergency pits or blowdown pits.

(8) Flare pit--Pit which contains a flare and which is used for temporary storage of liquid hydrocarbons which are sent to the flare during equipment malfunction but which are not burned. A flare pit is used in conjunction with a gasoline plant, natural gas processing plant, pressure maintenance or repressurizing plant, tank battery, or a well.

(9) Fresh makeup water pit--Pit used in conjunction with a drilling rig for storage of fresh water used to make up drilling fluid or hydraulic fracturing fluid.

or geothermal resources, as those activities are defined in paragraph (30) of this subsection, and materials to be disposed of or reclaimed which have been generated in connection with activities associated with the solution mining of brine. The term "oil and gas wastes" includes, but is not limited to, saltwater, other mineralized water, sludge, spent drilling fluids, cuttings, waste oil, spent completion fluids, and other liquid, semiliquid, or solid waste material. The term "oil and gas wastes" includes waste generated in connection with activities associated with gasoline plants, natural gas or natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants unless that waste is a hazardous waste as defined by the administrator of the United States Environmental Protection Agency pursuant to the federal Solid Waste Disposal Act, as amended (42 United States Code §6901 et seq.).

(27) Oil field fluids--Fluids to be used or reused in connection with activities associated with the exploration, development, and production of oil or gas or geothermal resources, fluids to be used or reused in connection with activities associated with the solution mining of brine, and mined brine. The term "oil field fluids" includes, but is not limited to, drilling fluids, completion fluids, surfactants, and chemicals used to detoxify oil and gas wastes.

(28) Pollution of surface or subsurface water--The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any surface or subsurface water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

(29) Surface or subsurface water--Groundwater, percolating or otherwise, and lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or nonnavigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state.

(30) Activities associated with the exploration, development, and production of oil or gas or geothermal resources--Activities associated with:

(A) the drilling of exploratory wells, oil wells, gas wells, or geothermal resource wells;

(B) the production of oil or gas or geothermal resources, including:

(i) activities associated with the drilling of injection water source wells that penetrate the base of usable quality water;

(ii) activities associated with the drilling of cathodic protection holes associated with the cathodic protection of wells and pipelines subject to the jurisdiction of the commission to regulate the production of oil or gas or geothermal resources;

(iii) activities associated with gasoline plants, natural gas or natural gas liquids processing plants, pressure maintenance plants, or repressurizing plants;

(iv) activities associated with any underground natural gas storage facility, provided the terms "natural gas" and "storage facility" shall have the meanings set out in the Texas Natural Resources Code, §91.173;

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Texas Administrative Code

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(42) Non-commercial fluid recycling pit--Pit used in conjunction with one or more oil or gas leases or units that is constructed, maintained, and operated by the operator of record of the lease or unit and is located on an existing commission-designated lease or drilling unit associated with a commission-issued drilling permit, or upon land leased or owned by the operator for the purposes of operation of a non-commercial disposal well operated pursuant to a permit issued under §3.9 of this title or a non-commercial injection well operated pursuant to a permit issued under §3.46 of this title, for the storage of fluid for the purpose of non-commercial fluid recycling or for the storage of treated fluid.

(43) Recycle--To process and/or use or re-use oil and gas wastes as a product for which there is a legitimate commercial use and the actual use of the recyclable product. 'Recycle,' as defined in this subsection, does not include injection pursuant to a permit issued under §3.46 of this title.

(44) Treated fluid-Fluid that has been treated using water treatment technologies to remove impurities such that the treated fluid can be reused or recycled. Treated fluid is not a waste but may become a waste if it is abandoned or disposed of rather than reused or recycled.

(45) Recyclable product--A reusable material as defined in §4.204(12) of this title (relating to Definitions).

(46) 100-year flood plain--An area that is inundated by a 100-year flood, which is a flood that has a one percent or greater chance of occurring in any given year, as determined from maps or other data from the Federal Emergency Management Administration (FEMA), or, if not mapped by FEMA, from the United States Department of Agriculture soil maps.

(47) Distilled water--Water that has been purified by being heated to a vapor form and then condensed into another container as liquid water that is essentially free of all solutes.

(b) No pollution. No person conducting activities subject to regulation by the commission may cause or allow pollution of surface or subsurface water in the state.

(c) Exploratory wells. Any oil, gas, or geothermal resource well or well drilled for exploratory purposes shall be governed by the provisions of statewide or field rules which are applicable and pertain to the drilling, safety, casing, production, abandoning, and plugging of wells.

(d) Pollution control.

(1) Prohibited disposal methods. Except for those disposal methods authorized for certain wastes by paragraph (3) of this subsection, subsection (e) of this section, or §3.98 of this title (relating to Standards for Management of Hazardous Oil and Gas Waste), or disposal methods required to be