To: Blumenfeld, Jared[BLUMENFELD.JARED@EPA.GOV]; Strauss, Alexis[Strauss.Alexis@epa.gov]; Woo, Nancy[Woo.Nancy@epa.gov]; Montgomery, Michael[Montgomery.Michael@epa.gov]; Keener, Bill[Keener.Bill@epa.gov]; Mogharabi, Nahal[MOGHARABI.NAHAL@EPA.GOV]; Skadowski, Suzanne[Skadowski.Suzanne@epa.gov]; Albright, David[Albright.David@epa.gov]
From: Zito, Kelly
Sent: Mon 5/18/2015 5:42:56 PM
Subject: Fwd: news release & conference call

Sent from my iPhone

Begin forwarded message:

From: "Schilling, Teresa@DOC" <Teresa.Schilling@conservation.ca.gov>
Date: May 18, 2015 at 10:34:10 AM PDT
To: "Schilling, Teresa@DOC" <Teresa.Schilling@conservation.ca.gov>
Subject: FW: news release & conference call

The letter will be on our website momentarily.

PROGRESS UPDATE on California underground injection/compliance with federal Safe Drinking Water Act today at noon. Call: Ex. 2. Passcode: Ex. 2. State Water Board Groundwater Monitoring Section Chief John Borkovich and State Oil & Gas Supervisor Steven Bohlen will be available.

CONTACT: George Kostyrko, State Water Board, (916) 341-7365

Teresa Schilling, Dept. of Conservation, (916) 323-1886

STATE COMPLETES INITIAL REVIEW OF UNDERGROUND INJECTION WELLS,

REPORTS TO U.S. EPA

SACRAMENTO – State agencies charged with protecting water resources have submitted an initial review of injection wells related to oil production to the U.S. Environmental Protection Agency (U.S. EPA). Conducted by the California Department of Conservation (DOC) and State Water Resources Control Board (State Water Board), the expedited review focused on 532 wells identified as injecting into federally protected groundwater.

“We are making good progress in addressing concerns about water quality that we all share,” State Oil & Gas Supervisor Dr. Steven Bohlen said. “Continued vigilance and testing will be needed, but so far we haven’t found a significant risk to water supplies.”

Currently, 22 wells in Kern County and one in Tulare County have been shut-in based on concerns from the Division and the State Water Board that these injection wells may be a risk to water resources. Central Valley Regional Water Quality Control Board staff have tested nine water supply wells near those injection wells and found no evidence of contamination related to underground injection.

When oil producers extract oil, large volumes of water often come to the surface with oil. Oil producers use injection wells to dispose of this so-called “produced” water.

State regulators last summer began an evaluation of all 50,000 underground injection wells in California, with an immediate emphasis on those injecting into zones with the highest water quality. That action came after it was discovered that some injection was taking place into zones previously not exempted by the U.S. EPA for injection under the terms of the federal Safe Drinking Water Act.

The State Water Board and DOC's Division of Oil, Gas, and Geothermal Resources (Division) started with a list of 2,553 wells injecting into "non-exempt" zones. Of those, 2,021 were identified as relatively low priority because injection was occurring into oil- or natural gas-bearing zones, where the groundwater is not suitable for human consumption or agricultural use.

Of the 532 wells – all used for the disposal of produced water from oilfield operations – it was determined that 176 were injecting into zones containing water with total dissolved solids (TDS) of less than 3,000 milligrams per liter, an indicator of higher water quality. Those became the immediate focus of the joint state-federal review. The State Water Board conducted a detailed review of injection wells injecting at a depth less than 1,500 feet below ground surface or within 500 feet vertically and one mile horizontally of a water supply well. Based upon the State Water boards review, the Division identified 23 wells that should cease injecting in order to protect potentially potable groundwater.

"Our review was based upon whether the injection wells pose an immediate risk to water supply wells," State Water Board Groundwater Monitoring Section Chief John Borkovich said. "The Division has shut in the injection wells where the risk of contamination is considered highest. The Water Boards are requiring the operators to supply detailed water quality data and information to assess if groundwater resources have been contaminated."

The Division -- which, by delegation from the U.S. EPA, has primary authority to regulate underground injection wells related to oil and gas operations in California -- will continue to review, in collaboration with the State Water Board, two additional categories of wells:

♦ 356 wells identified as injecting into zones with water quality between 3,000 and 10,000 TDS (the Safe Drinking Water Act considers all water of less than 10,000 TDS a potential source of drinking water, although the benchmark for California drinking water is 500 TDS).

♦ Approximately 3,600 cyclic steam wells will be further reviewed to clarify the status of the zones they are drilled into. Such wells intermittently inject steam into thick crude oil, heating it and allowing it

to flow more easily to the surface. Because any groundwater in those zones is already intermingled with oil and because the steam is vaporized clean water, these cyclic steam wells are considered to have a low potential to negatively impact beneficial water sources.

"We've committed to the U.S. EPA to reviewing these wells out of an abundance of caution," Bohlen noted. "Cyclic steam wells pose a relatively low risk to drinking or agricultural water for a couple of reasons. One, the method works best when the water used to create the steam is free of contaminants, which means what's being injected is clean water. Two, they are drilled into formations that naturally contain oil and thus are highly unlikely to be used for drinking. But protecting California's groundwater is critical, so we're going to go the extra mile to ensure no degradation is resulting from the use of cyclic steam."

On April 23, DOC adopted interim regulations to bring California's underground injection program into full compliance with the Safe Drinking Water Act. These regulations establish several important deadlines. The first is five months away: By October 15, all injection into non-exempt groundwater zones that do not naturally contain oil reservoirs and have water quality of less than 3,000 TDS must cease. Injection can continue beyond that date if the state applies for and receives an exemption from U.S. EPA.

"An application for an aquifer exemption will be based on detailed technical evidence provided by the oil and gas operators and other information sources that clearly demonstrate that the injection fluids will not migrate into water resources of current or potential future beneficial use," Borkovich said.

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