UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

March 9, 2015

Jonathan Bishop
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Steven Bohlen
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Division of Oil, Gas Geothermal Resources
California Department of Conservation
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Dear Messrs. Bishop and Bohlen:

Thank you for your February 6, 2015 letter setting forth a comprehensive plan to ensure that California's Class II Underground Injection Control ("UIC") program will come into compliance with the Safe Drinking Water Act (SDWA). We are pleased that you have initiated action to implement the plan, for example by issuing orders on March 3, 2015 to operators to immediately cease injection where your ongoing evaluation revealed that an injection well was potentially impacting water supply wells. To ensure that the State continues to make progress towards full compliance with the SDWA, we have indicated to you the need to establish additional milestones prior to February 15, 2017, which is the final compliance deadline for Class II wells currently injecting into a non-exempt aquifer. Enclosed is a schedule of required activities and deliverables, with target milestones and compliance deadlines, which are described below.

Drinking Water Protection Well Evaluations: Getting a complete picture of the scope of the problem is key to achieving full compliance, and the State's plan includes an ongoing process to review wells that may be injecting into non-exempt aquifers. The process described on pages 3-4 of the February 6th letter divides the wells into three categories based on the potential risk to groundwater and includes review by both DOGGR and the State Water Board. The February 6th letter states that you anticipate completing this review in early 2016. EPA has established deadlines for the State's completion of the combined injection well and water supply well screening for each of the three categories identified in the February 6th letter. The deadlines are as follows:

- May 15, 2015 for Class II water disposal wells injecting into non-exempt, non-hydrocarbon-bearing aquifers and the 11 aquifers historically treated as exempt (Category 1);
- July 31, 2015 for Class II enhanced oil recovery (EOR) wells injecting into non-exempt, hydrocarbon-bearing aquifers (Category 2); and

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- February 15, 2016 for Class II disposal and EOR wells that are inside the surface boundaries of exempted aquifers, but that may be injecting into a zone not exempted by EPA (Category 3).

DOGGR has continued to review well records and in the process has proposed that EPA consider an additional category of wells which inject steam into hydrocarbon producing formations to enhance product recovery (cyclic steam). We understand you are in the process of collecting information on these wells, which were not included in Enclosure B of your February 6th letter. By May 15, 2015, DOGGR shall update Enclosure B to include cyclic steam wells and provide a schedule for completing the State's review of these wells and bringing them into compliance by February 15, 2017.

Keeping these well evaluations on schedule will facilitate prompt issuance of emergency orders, as needed, to protect water supply wells, as described on pages 7-8 of the February 6th letter.

Aquifer Exemption Process: The State's plan describes an aquifer exemption process that requires both DOGGR and the State Water Board to agree that an aquifer exemption is appropriate before the State forwards an exemption application to EPA for consideration. Informing the public and the regulated community about this process and the requirements, in addition to obtaining public input on specific exemptions, is essential. DOGGR's planned release of guidance on the aquifer exemption process around April 1, 2015 will facilitate this outreach. We appreciated the opportunity to participate in the public workshop you held in Bakersfield on February 24; we plan to participate in a second workshop in Long Beach on March 24 and will make ourselves available as needed for future outreach.

A critical aspect of the aquifer exemption process will be providing EPA with adequate time to review any proposed exemption to determine whether it satisfies the SDWA's regulatory requirements. Given the compliance deadlines to eliminate all injection into non-exempt aquifers by October 15, 2015 (for wells injecting into non-hydrocarbon bearing zones under 3,000 mg/L TDS) and February 15, 2017 (for all remaining Class II wells), EPA is establishing interim milestones to make sure that EPA does not receive a substantial number of aquifer exemption applications to review at the last minute, and to prioritize any exemptions sought for disposal wells injecting into non-hydrocarbon-bearing aquifers. Accordingly, EPA expects that the State will submit aquifer exemption applications as follows:

- 100% of proposed aquifer exemptions for Category 1 disposal wells injecting into non-exempt, non-hydrocarbon-bearing aquifers containing 3,000 mg/L TDS or less: July 15, 2015;
- 90% of proposed aquifer exemptions for Category 1 disposal wells with injection into non-exempt, non-hydrocarbon bearing aquifers containing 3,000 -10,000 mg/L TDS, and all proposed exemptions for any of the 11 aquifers historically treated as exempt: November 15, 2015;
- 90% of proposed aquifer exemptions for Category 2 wells: February 15, 2016;
- 90% of proposed aquifer exemptions for Category 3 wells: August 15, 2016; and
- 100% of remaining proposed aquifer exemptions for existing wells by October 15, 2016.

Failure to submit applications in accordance with this schedule will seriously jeopardize EPA's ability to take final action on aquifer exemption requests in advance of the compliance deadlines.

With respect to the 11 aquifers that have historically been treated as exempt, we look forward to working with your agencies to evaluate whether those aquifers meet State and EPA criteria for Class II injection. As an initial step, we request that the State evaluate the current quality of each of these

aquifers and provide a preliminary assessment by July 15, 2015 of whether available data would support an aquifer exemption proposal. Given existing data that indicates these aquifers contain less than 3,000 mg/L TDS and are not hydrocarbon-bearing, the State shall not permit new injection wells in these aquifers, even in the limited circumstances proposed on page 7 (and Enclosure D) of the February 6th letter, prior to State submittal of supporting information to EPA and an EPA decision. Further, the State shall require that existing wells cease injection into these aquifers by December 31, 2016, absent an EPA decision that the aquifer(s) meet criteria for Class II injection based on State submittal of supporting information between now and then.

To facilitate consideration of aquifer exemption requests, the State should require operators to provide the State with all necessary data and analyses in a manner that allows for review, public notice, and timely application to EPA for exemption, if appropriate. Anticipating that there will be situations where an operator, or the State, decides not to seek an exemption from EPA for an existing well in a non-exempt aquifer, the State should establish a plan and timeframes to discontinue use of wells after such decisions are made. Please submit this plan to EPA by July 15, 2015.

Rulemakings for Corrective Action and Class II UIC Program Improvements: The February 6th letter describes the State's plan to implement the compliance deadlines for winding down of injection activity in non-exempt aquifers through an administrative rulemaking. The target dates for this corrective action rulemaking process are:

- Submit Proposed Emergency Rulemaking to the Office of Administrative Law (OAL) by April 9, 2015;
- Finalize Emergency Rule by April 30, 2015;
- Initiate Permanent Rulemaking by June 1, 2015; and
- Finalize Permanent Rulemaking by April 30, 2016

Further, DOGGR is continuing to evaluate its entire Class II program and proposing to make programmatic improvements through a series of rulemaking actions and revisions to DOGGR's internal processes and program implementation. In lieu of submitting a work plan for a programmatic UIC rulemaking on April 1, 2015 as described in the February 6th letter, DOGGR will submit to EPA a detailed plan for comprehensive Class II program improvements that covers both proposed rulemaking and non-rulemaking program improvements by July 15, 2015. In addition, the target dates for regulatory revisions are:

- Submit initial proposed regulatory revisions to OAL by September 30, 2016; and
- Complete regulatory revisions by September 2018

EPA encourages earlier implementation of program improvements and the completion of interim steps and corrective action as soon as possible.

As one of these program improvements, DOGGR shall create a searchable injection well database. An effectively designed searchable database is necessary for DOGGR to properly manage permitting and enforcement of injection activity across the State, for EPA to conduct its oversight of the Class II program, and for the public to monitor injection activity. We understand that to accomplish this task, DOGGR must prepare and submit a Feasibility Study Report (FSR) to the California Technology Agency. The February 6th letter states that DOGGR has created a team to develop the FSR, which is targeted for completion by December 2015, to be followed by proposed inclusion in the State budget and a February

2017 target date to initiate operation of the database. EPA looks forward to close communication with the State regarding the progress and proposed framework for this essential database resource.

Communication and Outreach: In addition to the aquifer exemption workshops already mentioned, the State and EPA should continue to coordinate outreach and conduct additional informational workshops in the future, as needed. Also, we plan to meet monthly with representatives from your agencies to discuss the progress of the State's plan and the steps identified above. Please provide us with a detailed progress report prior to each meeting, and notify us as soon as you become aware of circumstances that may affect the plan's implementation.

We look forward to continuing our joint effort to protect California's underground sources of drinking water and ensure compliance with the SDWA.

Sincerely,

Jane Diamond
Director
Water Division

Enclosure

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California Class II UIC Program Corrective Action Plan Schedule

A. Drinking Water Protection Well Evaluations

- Complete evaluations for "Category 1" injection wells **(May 15, 2015)**
- Complete evaluations for "Category 2" injection wells **(July 31, 2015)**
- Revise Enclosure B of the State's February 6th letter to incorporate cyclic steam wells and provide a schedule for completing a review of these wells and submitting proposed aquifer exemptions, as applicable, to meet the February 15, 2017 compliance deadline **(May 15, 2015)**
- Complete evaluations for "Category 3" injection wells **(February 15, 2016)**

B. Well Shut-Ins

- Shut-in deadline for wells injecting into non-exempt, non-hydrocarbon-bearing aquifers with TDS levels below 3,000 mg/l TDS **(October 15, 2015)**
- Shut-in deadline for wells injecting into the 11 aquifers historically treated as exempt, unless aquifer(s) is exempted by EPA pursuant to this corrective action plan **(December 31, 2016)**
- Shut-in deadline for all existing wells injecting into non-exempt aquifers with TDS levels below 10,000 mg/L TDS **(February 15, 2017)**

C. Aquifer Exemption Process

- Issue Aquifer Exemption Guidance **(April 1, 2015)**
- Deadline for submission to EPA of all proposed aquifer exemptions for Category 1 wells injecting into aquifers containing 3,000 mg/L TDS or less (excluding wells injecting into the 11 aquifers historically treated as exempt) **(July 15, 2015)**
- Deadline for submission to EPA of an evaluation of each of the 11 aquifers historically treated as exempt with a preliminary assessment of whether current data would support an aquifer exemption proposal by the State **(July 15, 2015)**
- Deadline for submission to EPA of a plan and timeframes to address closure of injection wells for which the State is not seeking an aquifer exemption **(July 15, 2015)**
- Category 1 wells: Target for submission of 90% of proposed aquifer exemptions, and 100% of proposed exemptions for any of the 11 aquifers historically treated as exempt **(November 15, 2015)**
- Category 2 wells: Target for submission of 90% of proposed aquifer exemptions **(February 15, 2016)**
- Category 3 wells: Target for submission of 90% of proposed aquifer exemptions **(August 15, 2016)**
- Deadline for submission to EPA of all proposed aquifer exemptions for decision by February 15, 2017 **(October 15, 2016)**

D. Rulemakings for Well Shut-Ins, Corrective Action and Class II UIC Program Improvements

Well Shut-Ins

- Initiate Emergency Rulemaking - submit proposed rule to OAL **(April 9, 2015)**
- Final Emergency Rule – estimated completion date **(April 30, 2015)**
- Initiate Permanent Rulemaking **(June 1, 2015)**
- Final Permanent Rulemaking – estimated completion date **(April 30, 2016)**

Regulatory Revisions and Non-Regulatory Improvements

- Submit detailed plan for comprehensive Class II program improvements to EPA (proposed rulemaking actions and non-rulemaking steps) **(July 15, 2015)**
- Submit initial proposed regulatory revisions to OAL **(September 30, 2016)**
- Complete regulatory revisions **(September 2018)**

Searchable Well Database

- Complete Feasibility Study Report **(December 31, 2015)**
- Award Database contract **(July 2016)**
- Implement database **(February 2017)**

E. Communication and Outreach

- Aquifer Exemption workshop **(March 24, 2015)**
- Agencies meet monthly to review progress. Prior to each meeting DOGGR/SWRCB will provide a progress report to EPA **(March 2015 - March 2017)**

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