UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 95105-3901

JUL 17 2014

OFFICE OF THE
REGIONAL ADMINISTRATOR

Matt Rodriquez
Secretary for Environmental Protection
California Environmental Protection Agency
1001 I Street
P.O. Box 2815
Sacramento, CA 95812-2815

John Laird
Secretary
California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Dear Secretaries Rodriquez and Laird:

The Safe Drinking Water Act was passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supplies. The SDWA authorizes the United States Environmental Protection Agency to protect underground sources of drinking water. This role is of particular importance at this time of drought and diminished water supplies.

Since 1983, California's Division of Oil, Gas and Geothermal Resources has been granted primary responsibility from EPA to implement the requirements of the Safe Drinking Water Act's Underground Injection Control Program. The State's authority covers certain types of injection wells, used primarily to inject steam or water for enhanced oil/gas recovery, or to inject waste water (such as brines) from oil and gas production (Class II). EPA approves the locations where injection into groundwater aquifers may be allowed. These aquifers are generally those that are not used and have no use as potential sources of drinking water. Aquifers with high quality water are protected and should not receive Class II oil and gas related injection fluids.

EPA requires DOGGR to administer the State Program in accordance with approved statutes and regulations, including the requirements and procedures described in a Memorandum of Agreement between the EPA and DOGGR. In 2011, EPA conducted an audit of the State Program that highlighted specific deficiencies. Additionally, in 2012, EPA performed a preliminary review focused on aquifer exemptions, the results of which were shared with DOGGR (copy enclosed). The review raised questions about the alignment of Class II injection wells with approved aquifer exemption boundaries. DOGGR then initiated a broad review of Class II injection in the State to ensure that wells have been appropriately authorized to inject within the aquifer exemption boundaries approved by the EPA. After reviewing files for existing Class II well permits and GIS mapping of the wells in question, DOGGR determined that it had authorized some injection of oil and gas-related disposal fluids such as brines into non-exempt

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aquifers containing high quality water. Additionally, DOGGR identified the presence of water supply wells in the vicinity of some of the injection wells. On July 1, 2014, the State issued orders requiring the affected operators to cease injection in non-exempt, fresh water aquifers and to submit data needed to assess the potential threat to human health and potential impacts to water quality.

Exercising our authority under 40 C.F.R. § 145.32, EPA requests that DOGGR take the following actions and provide the following information to the EPA:

1. **Drinking Water Source Evaluation**

EPA requests that the State provide, within 60 days of receipt of this letter, its initial assessment of whether any existing and potential sources of drinking water are at risk of contamination from improper Class II injection, including the following:

a. The location of private and public water system wells that may be at risk due to permitted Class II injection activities.

b. A plan to ensure protection of human health from actual or potential exposure to drinking water affected by any injection wells.

c. In coordination with the State Water Resources Control Board, Regional Water Quality Control Boards and the California Department of Public Health, a plan to communicate this information to the public and to address subsequent questions and concerns.

2. **Documentation of Aquifer Exemptions**

When EPA approved State primacy in 1983, EPA also approved a number of aquifer exemptions. Following up on our 2012 preliminary review, we are working to evaluate the historical records on aquifer exemptions. To facilitate our evaluation, EPA asks that DOGGR provide all documents that pertain to the State's requests for aquifer exemptions, EPA's approval or denial of such requests, and any post-primacy appeals by the State regarding aquifer exemptions. Please provide any information within 30 days of receipt of this letter.

3. **Tiered Review of Class II Wells**

Any injection from Class II wells into an aquifer that meets the definition of an underground source of drinking water (less than 10,000 mg/L total dissolved solids), absent an EPA-approved aquifer exemption, is inconsistent with UIC regulations and State Program primacy requirements. EPA understands the State is currently evaluating all potential Class II wells that may be injecting into underground sources of drinking water. EPA supports the State's plans to complete the review of all affected wells within the next several months, and to take responsive action to protect underground sources of drinking water, with priorities for review based on proximity to water supply wells and the potential that receiving formations may be in current use as sources of drinking water. Please provide the following:

a. Within 30 days of receipt of this letter, the number and location of all Class II wells, by DOGGR district, permitted to inject in non-hydrocarbon-producing formations with water quality below 10,000 mg/L total dissolved solids, other than the 25 formations listed in Attachment A to this letter. For each identified well, please include the operator's name, well type, depth, field and formation names, date injection commenced, the water quality (TDS) of both the injection formation and the injection fluid, and any other pertinent details. In addition, please provide any associated orders or actions to cease injection in such formations (excluding the seven orders dated July 1, 2014) and plans to ensure future protection of underground sources of drinking water.

b. Within 90 days of receipt of this letter, the number and location of all Class II wells, by DOGGR district, permitted to inject in hydrocarbon-producing formations with water quality below 10,000 mg/L TDS located in non-exempt aquifers. For each identified well, please include the operator's name, well type, depth, field and formation names, date injection commenced, the water quality (TDS) of both the injection formation and the injection fluid, and any other pertinent details.

c. Within 60 days of receipt of this letter, a plan and timeline for completion of a searchable database of all the Class II well information statewide (along with a GIS overlay of the injection wells, injection formations, and aquifer exemptions) and submission to EPA of any new or revised aquifer exemption requests, which the State determines are appropriate.

4. **State Program Consistency**

On November 16, 2012, DOGGR provided an action plan to the EPA in response to the EPA's 2011 audit of the State Program's consistency with federal regulations. The action plan addresses the identified deficiencies, including clarification of the regulatory definition of underground sources of drinking water and improved procedures for well testing and aquifer analysis. Please provide, within 30 days of receipt of this letter, a status report on DOGGR's progress on this action plan (copy enclosed), along with a schedule for any plan revisions and for completing implementation of the action plan.

In conducting the ongoing program evaluation, EPA's goal is to ensure that the State's Program complies with all necessary requirements, is implemented in accordance with the approved Program, and provides the transparency necessary for facilitating EPA's oversight of the Program.

Thank you for your prompt attention and continued cooperation as we pursue resolution of these issues.

Sincerely,

Jared Blumenfeld

Attachment and Enclosures

cc: Mark Nechodom, Director, California Department of Conservation
Jason Marshall, Deputy Director, California Department of Conservation
Bruce Reeves, Chief Counsel, California Department of Conservation
Tom Howard, Executive Director, State Water Resources Control Board
Jonathan Bishop, Chief Deputy Director, State Water Resources Control Board
Pamela Creedon, Executive Officer, Regional Water Quality Control Board
Clay Rodgers, Assistant Executive Officer, Regional Water Quality Control Board
Mark Starr, Deputy Director, California Department of Public Health
Steven Bohlen, Oil and Gas Supervisor, Division of Oil, Gas and Geothermal Resources
California Department of Conservation

ATTACHMENT A

EPA Approved Aquifer Exemption formations for which no information is requested:

Field	Formation /Zone
McCool Ranch	"D" Sand
Asphalto	Tulare
San Ardo	Continental
San Ardo	Aurignac
Ramona	Pico
Cat Mountain	Undifferentiated
Simi	Sespe
San Ardo	Santa Margarita
San Ardo	Monterey "D" Sand
San Ardo	Monterey "E" Sand
Monroe Swell	Santa Margarita
Buena Vista	Tulare
Kern Bluff	Vedder
Kern River	Vedder
Mountain View	Kern River
Pleito	Chanac
Pleito	Kern River
Poso Creek	Santa Margarita
Coalinga	Santa Margarita
Coalinga	Etchegoin-Jacalitos
Guijarral Hills	Etchegoin-Jacalitos*
Helm	Tulare-Kern River
Riverdale	Pliocene
Turk Anticline	San Joaquin
Sutter Buttes Gas	Kione*

- Oil and/or gas producing