## {In Archive} Fw: Aquifer Exemption within Goliad County , Texas

Ray Leissner to: Carrie Wehling, Leslie Darman 03/27/2012 08:17 AM
Cc: Philip Dellinger

From: Ray Leissner/R6/USEPA/US
To: Carrie Wehling/DC/USEPA/US@EPA, Leslie Darman/DC/USEPA/US@EPA
Cc: Philip Dellinger/R6/USEPA/US@EPA
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FYI - attached below is a recent letter we've received that corroborates my assertion on the call yesterday that the aquifer is hydraulically connected to the wells outside of the exemption. Also know that the Evangeline aquifer is part of the Goliad aquifer, the regional GW source.

That was a good call yesterday and I think we advanced mutual understanding. Thanks.

Ray Leissner, Env. Eng.
Ground Water / UIC Section (6WQ-SG)
(214) 665 - 7183
USEPA, Region 6

The FIRST STEP in protecting your ground water is to have your well tested.

----- Forwarded by Ray Leissner/R6/USEPA/US on 03/27/2012 07:55 AM -----

From: Philip Dellinger/R6/USEPA/US
To: Ray Leissner/R6/USEPA/US@EPA, Jose Torres/R6/USEPA/US@EPA, pham_lisa@hotmail.com
Date: 03/26/2012 06:27 PM
Subject: Fw: Aquifer Exemption within Goliad County, Texas

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FYI.
----- Forwarded by Philip Dellinger/R6/USEPA/US on 03/26/2012 06:29 PM -----

From: William Honker/R6/USEPA/US
To: Chrissy Mann/R6/USEPA/US@EPA, Suzanne Murray/R6/USEPA/US@EPA, David Gillespie/R6/USEPA/US@EPA, Stacey Dwyer/R6/USEPA/US@EPA, Dellinger.Philip@epamail.epa.gov, Wren Stenger/R6/USEPA/US@EPA, Rob Lawrence/R6/USEPA/US@EPA
Date: 03/26/2012 05:21 PM
Subject: Fw: Aquifer Exemption within Goliad County, Texas

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FYI

Bill

William K. (Bill) Honker, P.E.
Acting Director, Water Quality Protection Division
Senior Policy Advisor for Coastal Restoration
EPA Region 6 - Dallas, TX
Phone 214-665-3187
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----- Forwarded by William Honker/R6/USEPA/US on 03/26/2012 05:19 PM -----

From: "Velia Andaverde" <vandaverde@blackburncarter.com>

To: Ann Codrington/DC/USEPA/US@EPA

Cc: William Honker/R6/USEPA/US@EPA, Nena Shaw/DC/USEPA/US@EPA, "Adam Friedman" <afriedman@blackburncarter.com>, <gcgcd@goliadcogcd.org>, <gfettus@nrdc.org>

Date: 03/26/2012 05:15 PM

Subject: Aquifer Exemption within Goliad County, Texas

Ms. Codrington,

The attached letter is forwarded to you at the request of Mr. Adam M. Friedman. Please do not hesitate to contact me if you have difficulty accessing the attachment or if I may be of further assistance.

Thank you for your time and attention to this matter.

***Velia Andaverde, Legal Assistant***

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Ltr to Codrington-3-26-2012.pdf

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Sender's E-Mail: afriedman@blackburncarter.com

March 26, 2012

***Via Federal Express and Electronic Mail***
Ms. Ann Codrington, Director
Environmental Protection Agency
Office of Groundwater & Drinking Water
Drinking Water Protection Division
Ariel Rios Building
1200 Pennsylvania Avenue, N. W.
Mail Code: 4606M
Washington, DC 20460

RE: Texas Commission on Environmental Quality Aquifer Exemption Request within Goliad County

Dear Ms. Codrington:

On behalf of Goliad County, the Goliad County Groundwater Conservation District, a group of affected citizens and the Natural Resources Defense Council, we write to express concern for the groundwater of the Evangeline Aquifer that could be significantly harmed by a proposed "In-Situ Leach" uranium mine in Goliad County, Texas. In an effort to avoid inundating the agency with documents, all exhibits referenced herein are available upon request.

Specifically, a significant portion of the Evangeline Aquifer within Goliad County is the target of the pending request for an aquifer exemption to Environmental Protection Agency, Region 6 ("EPA-Region 6") by the Texas Commission on Environmental Quality ("TCEQ"). Granting an aquifer exemption is one of the required components before this ISL uranium mine can commence operations and contaminate the Evangeline Aquifer. Before granting the requested exemption, EPA Region 6 has directed that TCEQ conduct additional modeling of the environmental impacts on the aquifer of the proposed ISL uranium mine. We think such modeling is necessary and we urge you to support the actions of EPA Region 6.

## I. Background

Groundwater from the Evangeline Aquifer is the sole source of domestic water supply for Goliad County, and, therefore, the backbone of its livelihood. Approximately 5,000 domestic and livestock water wells are located throughout Goliad County. More specifically, there are approximately fifty (50) domestic and agricultural water wells located within a one-kilometer radius of the proposed mining boundary. Each of these wells is believed to be screened at the same depths that uranium mining is being proposed (from the surface down to 400 feet). The close proximity of these wells to the proposed mining presents a great health risk to the citizens of Goliad County due to the migration of contaminants. Approving the requested exemption

would authorize contamination of a relatively substantial portion of the aquifer on which Goliad County currently depends.

As described herein, the proposed aquifer exemption does not satisfy the necessary legal prerequisites for approval. The purpose of this letter is to provide the basic information that demonstrates this failure.

## II. Legal Framework

Underground Sources of Drinking Water ("USDWs") are to be protected by the state program approved pursuant to the Safe Drinking Water Act ("SDWA") unless the USDW has been exempted. Uranium Energy Corp's ("UEC") proposed mining site in Goliad County is underlain by a non-exempt USDW. The ISL mining process requires injection of mining fluids into the USDW. Therefore, before mining may commence, UEC must obtain an exemption from the protection of the SDWA. However, because an aquifer exemption to the SDWA is considered an amendment to Texas' approved Underground Injection Control program, the TCEQ, not UEC, is the applicant for the aquifer exemption.

Pursuant to 40 C.F.R. § 146.4, an aquifer or a portion thereof which meets the criteria for an USDW may be determined to be an "exempted aquifer" if it meets the following criteria:

"(a) It ***does not currently serve*** as a source of drinking water; ***and***

(b) It ***cannot now and will not in the future*** serve as a source of drinking water because:

(1) It is mineral, hydrocarbon or geothermal energy producing, or can be demonstrated by a permit applicant as part of a permit application for a Class II or III operation to contain minerals or hydrocarbons that considering their quantity and location are expected to be commercially producible;

(2) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical;

(3) It is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or

(4) It is located over a Class III well mining area subject to subsidence or catastrophic collapse..."[1]

Section 146.4 of the Code of Federal Regulations establishes a two-prong test for obtaining an aquifer exemption. As this letter explains, an overwhelming amount of evidence demonstrates that the requested aquifer exemption does not satisfy either prong of the criteria. However, at this time, the EPA is currently evaluating the first prong regarding whether the requested exemption currently serves as a source of drinking water. For this reason, this letter focuses solely on the first prong of the aquifer exemption inquiry.

[1] 40 CFR § 146.4 (emphasis added).

## III. Correspondence between TCEQ and EPA

On May 27, 2011, EPA-Region 6 received an application from the TCEQ for exemption of a portion of the Evangeline Aquifer in Goliad, Texas, for in situ uranium mining in Goliad County.[2] On July 1, 2011, EPA-Region 6 responded to TCEQ's application. In its response, EPA-Region 6 noted that, "From the information provided in the application, EPA-Region 6 is unable to ascertain how the aquifer within the boundaries of the proposed exemption meets the first criterion" for an aquifer exemption.[3] EPA-Region 6 requested an additional modeling analysis demonstrating that the aquifer within the proposed exemption boundary either currently serves or does not serve as a source of drinking water." *Id.* On August 29, 2011, EPA-Region 6 received a response from TCEQ stating, "TCEQ disputes the determinations that the applications for program revisions are incomplete" and requested that "EPA continue to process and consider the TCEQ's applications."[4] NRDC, Goliad County, Goliad County Groundwater Conservation District and the citizens depend on protection of groundwater for safe drinking water, and urge the EPA to stand behind its request for additional modeling.

## IV. The aquifer within the proposed exemption currently serves as a source of water for human consumption, in violation of 40 C.F.R. § 146.4(a)

When the EPA approves an aquifer exemption, it is authorizing indefinite contamination of the water within the exemption. The policy behind this action is premised on the notion that the water within the exemption does not currently and never will serve as a source of drinking water that is fit for human consumption.

TCEQ did not dispute the existence of an hydrologic connection between the groundwater within the proposed exemption and the domestic water wells directly adjacent to the proposed exemption area. Given a hydraulic connection, regional and local flow directions are crucial for determining whether nearby wells are in jeopardy of contamination as a result of the proposed mining. Regionally, groundwater flow in the area of the proposed mining site is generally to the southeast towards the Gulf of Mexico. Local groundwater flow is also generally to the east and southeast, and maps[5] provided in the Production Area Authorization Application indicate that some groundwater within flows to the west.[6] Accordingly, a large portion, if not all of the approximate fifty (50) wells identified on the area of review map are at risk.

In other words, this connection indicates that the water to be contaminated by the ISL mining process migrates from within the exemption boundary to the nearby domestic water wells that are currently used by Goliad citizens as a source of drinking water. Until the hydraulic connection and local groundwater flow is modeled, or until the TCEQ can provide information to counter the existing hydrogeologic makeup of the proposed mining site, we cannot understand how the proposed exemption satisfies 40 C.F.R. § 146.04(a) as an aquifer that is not currently being used as a source of drinking water.

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[2] Exhibit 1, TCEQ Aquifer Exemption Application.
[3] Exhibit 2, EPA Response.
[4] Exhibit 3, TCEQ Response.
[5] Exhibit 4, Figure 5-3 (August 25, 2008) from PA-1; Figure 5-3 (February 17, 2009) from PA-1.
[6] Exhibit 5, Hearing Transcript at page 686, line11 – page 687, line10.

Despite groundwater from within the proposed exemption ultimately being used domestically once it migrates, the TCEQ argues that the aquifer exemption request still satisfies the statutory requirements because those wells are not *physically* located within the proposed exemption boundaries. However, it seems odd to imagine that the SDWA was designed to allow for such gerrymandering and clear manipulation, as urged by the TCEQ, such that a well located just one foot outside the requested exempted area would be denied the protection of a federal law designed to protect underground sources of drinking water.

Moreover, the request for modeling by EPA-Region 6 is consistent with EPA Guidance No. 34. Specifically, Guidance No. 34 clarifies that "**the area to be surveyed should cover the exempted zone and a buffer zone outside the exempted area. The buffer zone should extend a minimum of 1/4 mile from the boundary of the exempted area.**" The guidance document indicates that the EPA clearly contemplated evaluating the risk associated with migration of groundwater outside a proposed exemption boundary.

For this reasons stated above, the undersigned urge EPA to stand behind its request for additional modeling of the environmental and public health impacts of the proposed ISL mine in Goliad County before any final action on the pending request for an aquifer exemption. If we can provide any more information or answer any additional questions on these matters, please do not hesitate to contact us.

Sincerely,

*/s/ Adam M. Friedman*
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c: Nena Shaw, EPA Headquarters, Special Assistant to Deputy Administrator
Bill Honker, EPA Region 6, Water Quality Protection Division, Director