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Office of the Chief Clerk, MC 105
Texas Commission on Environmental Quality (TCEQ)
PO Box 13087
Austin, TX 78711-3087

Reference: TCEQ Permit No. UR03075
Docket No. 2025-0700-UIC– Formal Written Reply to Reponses

Ms. Laurie Gharis:

I want to start out by saying thank you to the TCEQ Executive Director (ED) and Office of Public Interest Council (OPIC) to have recognized my wife, Linda Pinsker and I as "affected persons" in this permit review process and recommending our hearing request. We know the TCEQ doesn't regulate the water quality of our private well, but encourages us to take appropriate precautions and work with federal, state, and local agencies to ensure the protection and maintenance of our own drinking water supplies from the health risks that the uranium in situ mining operation poses. In situ uranium mining dissolves uranium (and other formation constituents, such as arsenic and lead) into the mining solution. Lead poses both short and long-term health effects, including interference with red blood cell chemistry, delays in mental and physical development, strokes, kidney disease and cancer. Arsenic can cause circulatory system disorders, damage skin and raise cancer risks. Uranium is a carcinogen and a kidney toxin. This is why we are concerned and provide the following comments.

I will address four issues (Items, 1, 4, 5, & 6), that the ED identified in their July 28, 2025 Response to Hearing Request and Requests for Reconsideration. that we recently raised. Note in the ED's Response to Public Comments, dated March 11, 2025, we were associated with Comments & Responses – RTC No. 7 (Hydraulic Testing of faults , RTC No 11 (the amendment to remove TDS) , RTC No. 16 (contamination of groundwater), and RTC No. 17 (availability and use of groundwater) and our concern to take new water samples was ignored.

Item 1, Geology & Hydrology (RTC No 2) Will restate that Uranium Energy Corp.'s (UEC) permit renewal application clearly does not provide all the fault information that was publically

available and question if the ED adequately reviewed all the faults in this mining permit. I trust the Goliad County Groundwater Conservation District (GCGCD) will address this in greater detail and fact, and refer you to the facts and position presented in the GCGCD's April 17, 2025, ED's RESPONSE TO COMMENT #2 as my same position.

Item 4 –Adequately Protective of Groundwater - (RTC No 16) says "To provide protection of groundwater outside the zone and area being mined using in situ techniques, the permittee must confine the mining solution to the production zone within the area of designated production zone monitor well under 30 TAC 331.102. During mining operations, the permittee will be required to maintain a cone of depression in the production zone to confine mining solutions within the production area. And at the end restore groundwater in the production zone within the production area when mining is complete (30 TAC 331.107)."

My comments to that are that the permittee is not really "confining" the groundwater with any physical barriers; it is only negative pressures that are not always totally controlled by the permittee. And based on the history of this industry, no uranium in situ mine site has successfully restored groundwater constituents to pre-mine levels, at the end of mining. I would like the TCEQ or UEC to provide evidence that it has successfully restored uranium in situ mine site to pre-mine levels, before approving this one.

Item 5 – Adequate Monitoring - (RTC No 10) Response No 10 has a statement that "UR03075PAA1 is not subject to this renewal application." However, at the onset of the issuing document for said PAA1, it states: "This authorization is granted subject to the provisions of Area Permit No UR03075. This authorization will be in effect for ten years from the date of approval of the area permit, or until revocation of the area permit, or amendment of the authorization."

It's been over ten years, so the PAA1 is no longer in effect and has termed out and needs to be re-authorized, because the Area Permit No. URO3075 was re-submitted for review; therefore this PAA1 is also required to be reviewed per the provisions of the Area Permit. In addition, the Area Permit requires, per V.F.2., that "The permittee shall notify the TCEQ ... (in writing) of intent to collect samples for baseline ..... of each PPA at least two weeks before sample collection to allow staff an opportunity to split samples for confirming analysis." Neither TCEQ nor UEC has verified this occurred or produced documentation that the two week written notice was given or made in the original baseline sampling process.

A completely new set of water samples need to be taken to be compliant with the permit notification process and to re-establish the Baseline Water Quality Table. In the UEC's

Applicant's Response to Hearing Requests on page 23 (202) "Constituent values in groundwater .... Naturally vary over time, even in the same location." This statement alone justifies that the 17 plus year old water samples should not be used for baseline water constituents. To reinforce this more, per the GCGCD expert witness testimony (GCGCD April 17, 2025 ED's RESPONSE TO COMMENT #2) groundwater flows at 40 ft./year. That would mean the groundwater would have traveled nearly 680 feet, much more than the 94 feet projected by the TCEQ. As required per code 331.104.4(e) the control parameters upper limits for production and non-production zone monitors shall be determined from pre-mining groundwater sample data. The key word here is "pre-mining" not some historic data collected over 17 years ago. And UEC confirms that water constituent values change over time in the same location. We need current and verified water information and updated Baseline Water Quality Tables, before the PAA1 is approved.

Item 6 – Amending Control Parameters (RTC-11) In the RFC-11 it states that "Although total dissolved solids (TDS) has been removed as a control parameter in the draft permit, conductivity remains as a control parameter. The Executive Director determined that conductivity is an appropriate control parameter to detect excursions. Conductivity is directly proportional to TDS content in a specific water sample. TDS can be estimated using conductivity measurements by applying a conversion factor. Both TDS and conductivity are identified as control parameters in the current permit for use in excursion monitoring. Either one or the other is sufficient as a control parameter for determination of dissolved solids content in groundwater samples. Keeping both control parameters in the permit is unnecessary and redundant. Additionally, mining facility and compliance inspectors from TCEQ's Critical infrastructure Division have indicated that measuring conductivity is a more efficient and practical method for determining TDS in a field environment."

Both the TCEQ and UEC have stated the TDS and Conductivity are directly proportional. Let's investigate that with the values given in the current PAA1. Below is a comparison chart of that proportionality or ratio between TDS and conductivity.

	Sand A					**Sand B**				
	Low		Ave.		High	Low		Ave.		High
Conductivity umhos/cm	1040		1549		2520	953		1082		1140
TDS mg/l	403		923		2350	260		595		810
Ratio - Cond./TDS	2.58		1.68		1.07	3.67		1.82		1.41

And below are the concentration values for TDS listed from lowest to highest.

Values in mg/l TDS values listed lowest to highest

	Low B	LowA	Ave B	High B	Ave A	High A
TDS mg/l	260	403	595	810	923	2350
Ratio - Cond./TDS	**3.67**	**2.58**	1.82	**1.41**	1.68	**1.07**

What I don't see is any consistent proportionality in the ratio of Conductivity to TDS values. The values range from factors of 3.67 to 1.07 and appear to be on a more logarithmic scale, if graphed. The TCEQ needs to provide the scientific evidence to the public to substantiate the use of a conversion factor. And what would that factor be?

If TDS or conductivity parameters are used as an upper end control parameter, a split sample needs to be taken and verified by the TCEQ. One high end anomaly on any one of the Control Parameter constituent values can skew the determination for excursions. It needs oversite and confirmation with current split testing by the TCEQ. Excursion limits are set artificially high with the allowance of a 1.25 factor over the highest recorded values. This just invites contamination of the groundwater before corrections can be made. I would think the TCEQ, who is authorized to protect human health and safety and natural resources, would be doing more to prevent the possibility of groundwater contamination.

My final comment was there was no information in the Goliad Library why UEC requested or why TCEQ approved this change in monitoring parameters. And no public input has been afforded on this issue.

Thank you for allowing me to present my response on behalf of my wife, Linda Pinsker and myself. I may be reached at 361-816-8829 if you have any questions.

Sincerely,

David Michaelsen & Linda Pinsker

CC – See attached list

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