

APPLICATION OF URANIUM	§	BEFORE THE STATE OFFICE
ENERGY CORP FOR CLASS III	§	
INJECTION WELL PERMIT NO.	§	
URO3075, FOR AQUIFER	§	OF
EXEMPTION, AND FOR	§	
PRODUCTION AREA	§	
AUTHORIZATION NO. 1 IN	§	
GOLIAD COUNTY, TEXAS	§	ADMINISTRATIVE HEARINGS

**EXECUTIVE DIRECTOR'S REPLY TO EXCEPTIONS
TO THE PROPOSAL FOR DECISION**

The Executive Director (ED) of the Texas Commission on Environmental Quality (TCEQ or Commission), by and through a representative of the Commission's Environmental Law Division, files this Reply to Exceptions to the Administrative Law Judge's Proposal for Decision.

1. Revision of restoration table values would not trigger a need to recalculate the financial assurance cost estimate.

In UEC's Exceptions, it argues that there is no need to recalculate the financial assurance cost estimate for restoration for Production Area Authorization No. 1 (PAA-1), even if the restoration table is revised to reflect requirements to restore groundwater to lower constituent concentrations.² The Executive Director agrees that the financial assurance cost estimate would not be affected by the revision of the restoration table and it would therefore not be necessary to revisit the cost estimate.

¹ Consolidated for hearing with SOAH Docket No. 582-09-6184; TCEQ Docket No. 2009-1319-UIC (Application by Uranium Energy Corp for Production Area Authorization No. 1).

² UEC's Exceptions to Proposal for Decision, pp. 22-24.

The cost estimate for aquifer restoration is not based on a specific numerical difference between groundwater constituent concentrations prior to mining and their concentrations after mining is complete. Instead, the cost estimate is based upon the volume of water that will need to be restored, which is based on the pore volume of the mining area.^{3,4} Therefore, a change in the aquifer restoration values does not require an adjustment in the cost estimate for aquifer restoration.

In addition, under 30 TAC §331.143, a permittee is required to provide an annual update to the cost estimate of the cost of aquifer restoration to account for changes in costs.⁵ Should UEC discover new costs, such as an increase in the number of pore volumes needed to restore the aquifer, this rule would require UEC to update the cost estimate and provide additional financial assurance.⁶

2. Commission rules do not require the results of fault pump tests to be included in an application and no fault pump test data was included in the application.

In its Exceptions, Goliad County states that the Executive Director's witness, David Murry, testified that the information from the Northwest fault pump test "was contrary to representations in the application".⁷ This misstates Mr. Murry's testimony, which was

³ Ex. ED-17, ED's Response to Comments on Proposed PAA1, p. 75 (Response 106).

⁴ The pore volume is based on the total volume of aquifer space that is affected and the porosity of the aquifer media within that space.

⁵ Id.

⁶ Id.

⁷ Goliad County's Responsive Brief and Exceptions to the Administrative Law Judge's Proposal for Decision and Order, p. 3 (citing 7 Tr. 1347:3-7. This citation appears to be incorrect; the ED believes

that the information was contrary to representations *brought forward in the hearing*, not representations *in the application*. The following is the full question and response:

Q. (from Mr. Blackburn): Do you understand that to be contrary to the representations that have been brought forward in this hearing that the northwest fault is not hydraulically connected from up-dip side to down-dip side?

A. (from Mr. Murry): That would be contrary. I guess, the only thing I would say is we -- I looked at this data right here over a few seconds. It seems that, yes, that's what it appears to be that there is a response in "C." The only thing I can tell you is that graphs -- that's one of the most messy graphs I've ever seen. But based on what I was shown here, yes, it appears that there is communication in "C" across the fault.⁸

Later, Goliad County states that Mr. Murry testified that it was a violation of the rules when UEC failed to submit key evidence to the staff.⁹ Again, this misstates Mr. Murry's testimony, which was a general restatement of the rule. The following is the full question and response:

Q. Now -- Again, does the Applicant have the option of withholding information and not seeking an amendment if that information is contrary to other representations the Applicant is making?

A. Based on the rule we've read, if they come across information that is contrary to what they submit in the application, they are obligated to tell us.¹⁰

Indeed, the pump test data was not included in the application at all. Goliad County states that if UEC had submitted the 24-hour pump test to the Commission prior to the hearing, *as required by Commission rules*, issues associated with the test could have been addressed prior to the hearing.¹¹ As the ED explained in his Exceptions to the

⁸ 7 Tr. 1342:3-14.

⁹ Goliad County's Responsive Brief, p. 4 (citing 7 Tr. 1342:15-22).

¹⁰ 7 Tr. 1342:15-22.

Proposal for Decision, the rules do not require fault pump test data to be submitted with the Class III injection well area permit application.

3. Baseline concentrations of radium would increase by averaging in Rounds 2 and 3 of baseline water quality sampling.

Goliad County states in its Exceptions that evidence from the second and third rounds of water quality sampling showed that the baseline concentrations for uranium and radium were inflated because of UEC's own actions.¹² The ED notes that when rounds 2 and 3 are included in the calculation of baseline values, the baseline concentration of radium would actually increase, not decrease.¹³

4. Applicant's Proposed Findings of Fact and Conclusions of Law

In general, the ED does not believe that findings of fact regarding the Applicant's history with the Texas Railroad Commission or those regarding in situ uranium mining in general are necessary to the disposition of the authorizations sought in this case.¹⁴

If the proposed Findings and Conclusions are adopted by the Commission, the ED suggests the following specific revisions:

- Finding VI. B. 6 should be deleted because 30 TAC § 331.120 is not applicable to the UEC applications (this section only applies to applications submitted or pending between May 26, 2001 and September 1, 2002).

¹² Goliad County's Responsive Brief, p. 3.

¹³ See revised Restoration Table, attached.

- Finding VI. K. 3 should refer to US Highway 183 not state Highway 183.
- Conclusion XI. B. 9 should be deleted because 30 TAC § 331.120 is not applicable to the UEC applications.
- Conclusion XI. B. 10 should be amended to refer to 30 TAC Chapter 60 because 30 TAC § 331.120 is not applicable to the UEC applications.

5. Revised Tables

As stated in the ED's Exceptions, the ED does not object to the revision of the PAA-1 Restoration Table to reflect an average of all three rounds of water quality sampling that were conducted. Since filing his Exceptions with an attached draft Revised Restoration Table, the ED noted some errors in that draft table. Therefore, the ED has attached a new Revised Restoration Table to this Reply, and would respectfully request that this table be considered by the Commission.

Additionally, the ED has attached to this Reply a draft revised Baseline Water Quality Table and Control Parameter Upper Limits Table. These tables, part of the draft PAA1, are affected by the incorporation of the additional sampling data to establish baseline for the production area.

Conclusion

The ED respectfully reiterates his recommendation that the Commission issue Class III injection well area permit No. UR03075, and grant the request for an aquifer exemption and application for Production Area Authorization No. 1. Further, if the Commission decides to revise Production Area Authorization No. 1 to reflect the averaging of all three rounds of groundwater quality samples, the ED provides the attached revised Restoration Table, Baseline Water Quality Table and Control Parameter Upper Limits Table for the Commission's consideration.

Respectfully submitted,

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REPRESENTING THE
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TEXAS COMMISSION ON
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CERTIFICATE OF SERVICE

I certify that on November 1, 2010, the original *Executive Director's Reply Exceptions to the Proposal for Decision* for the application by Uranium Energy Corp for UIC Permit No. UR03075, for aquifer exemption, and for Production Area Authorization No. 1 in Goliad County, Texas, was filed with the Office of the Chief Clerk at the Texas Commission on Environmental Quality, and a true and correct copy was mailed, faxed, or e-mailed to all persons on the attached mailing list.



Shana L. Horton

MAILING LIST
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ATTACHMENT 4A
BASELINE WATER QUALITY TABLE
GOLIAD PROJECT SAND B PRODUCTION ZONE

PRODUCTION ZONE									WELL ID BY AREA*	
Parameter	Units	Mine Area**			Production Area			Production Zone		
		Low	Ave.	High	Low	Ave.	High	Mine	Prod.	
1	Calcium	mg/l	82	97	110	81	96	110	BMW-1	PTW-1
2	Magnesium	mg/l	14.5	17.7	21.2	10.9	17.8	20.3	BMW-2	PTW-2
3	Sodium	mg/l	83	102	120	82	97	117	BMW-3	PTW-3
4	Potassium	mg/l	2.92	4.31	7.81	2.5	6.4	16.5	BMW-4	PTW-4
5	Carbonate	mg/l	0	0	0	0	0	3	BMW-5	PTW-5
6	Bicarbonate	mg/l	268	311	350	251	308	368	BMW-6	PTW-6
7	Sulfate	mg/l	0	50	89	1.5	43.2	82	BMW-7	PTW-7
8	Chloride	mg/l	147	164	185	150	164	180	BMW-8	PTW-8
9	Fluoride	mg/l	<0.5	0.57	0.71	<0.50	0.58	0.80	BMW-9	PTW-9
10	Nitrate-N	mg/l	<0.01	#	0.05	<0.01	0.14	1.73	BMW-10	PTW-10
11	Silica	mg/l	12.3	26.2	34.9	<0.05	29.8	37.5	BMW-11	PTW-11
12	pH	std. units	6.97	7.40	8.18	7.18	7.48	7.96	BMW-12	PTW-12
13	TDS	mg/l	260	595	810	390	586	698	BMW-13	PTW-13
14	Conductivity	µmho/cm	953	1082	1140	950	1084	1190	BMW-14	PTW-14
15	Alkalinity	mg/l	224	256	287	206	253	302	BMW-15	RBLB-1
16	Ammonia-N	mg/l	<0.1	0.12	0.34	<0.05	#	0.3	BMW-16	RBLB-3
17	Arsenic	mg/l	<2E-3	0.009	0.069	<0.01	0.011	0.030	BMW-17	RBLB-4
18	Cadmium	mg/l	<1E-3	##	##	<0.001	<0.007	<0.01	BMW-18	RBLB-5
19	Iron	mg/l	<3E-2	0.095	0.776	<0.01	0.067	0.322	BMW-19	
20	Lead	mg/l	<2E-3	##	##	<0.002	#	0.004	BMW-20	
21	Manganese	mg/l	<0.01	0.013	0.050	<0.010	0.027	0.026	BMW-21	
22	Mercury	mg/l	<1E-4	##	##	<0.0001	##	##	BMW-22	
23	Molybdenum	mg/l	<0.01	0.032	0.481	<0.01	0.185	0.136		
24	Selenium	mg/l	<3E-3	6E-3	6E-3	<0.003	+	0.002		
25	Uranium	mg/l	<1E-3	0.009	0.188	<0.003	0.50	0.804		
26	Radium-226	pCi/l	0.1	13.7	48	10.0	385.1	2000.0		

*List the identification numbers of wells used to obtain the high and low values for each parameter.

**Monitor Wells

Only one value quantified; different detection limits for each of 3 sampling rounds.

No quantified values.

+ Only 4 quantified values; different detection limits for each of 3 sampling rounds.

ATTACHMENT 4B
BASELINE WATER QUALITY TABLE
GOLIAD PROJECT SAND A NONPRODUCTION ZONE

	Parameter	Units	Non-Production Zone			Well ID for Non-Production Zone
			Low	Ave.	High	
						OMW-1
1	Calcium	mg/l	101	181	310	OMW-2
2	Magnesium	mg/l	9.2	21.2	40.5	OMW-3
3	Sodium	mg/l	83	105	133	OMW-4
4	Potassium	mg/l	0	1.7	4.4	OMW-5
5	Carbonate	mg/l	0	0	0	OMW-6
6	Bicarbonate	mg/l	246	315	370	OMW-7
7	Sulfate	mg/l	36	103	181	OMW-8
8	Chloride	mg/l	122	264	648	OMW-9
9	Fluoride	mg/l	0.32	0.46	0.63	
10	Nitrate-N	mg/l	1.90	6.16	10.5	
11	Silica	mg/l	16.1	33.8	51.2	
12	pH	std. units	6.70	7.14	7.44	
13	TDS	mg/l	403	923	2350	
14	Conductivity	µmhos	1040	1549	2520	
15	Alkalinity	mg/l	202	258	303	
16	Ammonia-N	mg/l	<0.1	0.13	0.47	
17	Arsenic	mg/l	<0.01	0.013	0.031	
18	Cadmium	mg/l	<1E-3	#	#	# No quantified values.
19	Iron	mg/l	<3E-2	0.085	0.890	
20	Lead	mg/l	<2E-3	##	3E-3	## Only two quantified value; different detection limits for 3 sampling rounds.
21	Manganese	mg/l	<3E-3	0.026	0.09	
22	Mercury	mg/l	<1E-4	#	#	
23	Molybdenum	mg/l	<1E-2	##	0.024	
24	Selenium	mg/l	<3E-3	0.011	0.013	
25	Uranium	mg/l	<3E-3	0.01	0.016	
26	Radium-226	pCi/l	0.2	1.4	6	

**ATTACHMENT 5
CONTROL PARAMETER UPPER LIMITS TABLE**

Production Zone	
Control Parameter	Sand B
Chloride, mg/l	231
Conductivity, umhos/cm	1,425

Non-Production Zone	
Control Parameter	Sand A 1st Overlying Aquifer
Chloride, mg/l	810
Conductivity, umhos/cm	3,150

**ATTACHMENT 6
RESTORATION TABLE**

<u>Parameter</u>	<u>Unit</u>	<u>Concentration</u>
Calcium	mg/l	96
Magnesium	mg/l	17.8
Sodium	mg/l	97
Potassium	mg/l	6.4
Carbonate	mg/l	0.0
Bicarbonate	mg/l	308
Sulfate	mg/l	43.2
Chloride	mg/l	164
Nitrate-N	mg/l	0.14
Fluoride	mg/l	0.58
Silica	mg/l	29.8
TDS	mg/l	587
Conductivity	µmhos/cm	1084
Alkalinity	mg/l as CaCO ₃	253
pH	Std. Units	7.18 to 7.96
Arsenic	mg/l	0.010
Iron	mg/l	0.68
Manganese	mg/l	0.027
Molybdenum	mg/l	0.185
Selenium	mg/l	0.007
Uranium	mg/l	0.050
Radium ²²⁶	pCi/l	391