



July 30, 2012

Attn: Document Control Desk  
Director  
Office of Federal and State Materials and  
Environmental Management Programs  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Re: Semi-Annual Report Uranerz Energy Corporation Nichols Ranch ISR Project SUA-1597

Dear Mr. McConnell,

This letter and attachment serves as the Semi-Annual Report for the Uranerz Energy Corporation Nichols Ranch ISR Project that is required by License Condition 11.1 B and D in SUA-1597.

An administrative amendment to change language in the license has also been included for License Condition 9.5 Financial Assurance. The language revision aligns the surety reviews between the State of Wyoming and the NRC to occur annually in December. Uranerz has reviewed the existing surety which is approved for the current activities and requires no revisions at this time.

If you have any questions regarding the provided information, please contact me at 307-265-8900 or by email at [mthomas@uranerz.com](mailto:mthomas@uranerz.com).

Sincerely,

A handwritten signature in black ink, appearing to read "M. Thomas", written over a horizontal line.

Michael P. Thomas  
Vice President Environmental, Safety, and Health  
Uranerz Energy Corporation

MT/dk

Attachments

Administrative Amendment to License Condition 9.5  
January-June 2012 Semi-Annual Report

cc: Ron Linton, NRC Project Manager  
Mark Rogaczewski, WDEQ-LQD District III Supervisor  
Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate

FSMEZO

### Administrative Amendment to License Condition 9.5

Uranerz proposes to change the language in License Condition 9.5 Financial Assurance. The current language indicates that the financial assurance update renewal date for Nichols Ranch ISR Project will be determined following consultation with the licensee and the State of Wyoming. Per discussion with the NRC both during the April 19 inspection and May 24 meeting it was decided that the financial assurance updates should occur concurrently with the State of Wyoming surety review which is required annually each December per WDEQ-LQD Permit to Mine 778. Contemporary financial assurance reviews would benefit the regulatory agencies and Uranerz creating concordance by avoiding piecemeal comments, disconnected changes, and confusing timeframes.

License Condition 9.5 paragraph 2, currently reads, “Proposed annual updates to the financial assurance amount, consistent with 10 CFR Part 40 Appendix A, Criterion 9, *shall be provided to the NRC 90 days prior to the anniversary date (e.g. renewal date of the financial assurance instrument/vehicle). The financial assurance update renewal date for Nichols Ranch ISR Project will be determined following consultation with the licensee and the State of Wyoming.*”

Uranerz proposes that the condition should read:.... **shall be provided to the NRC in a reasonable period of time (e.g. Annually in December) such that the financial assurance update and renewal date for the Nichols Ranch ISR Project occurs concurrently with the review by the State of Wyoming.**



## January – June 2012 Semi-Annual Report – Nichols Ranch ISR Project SUA-1597

### 1. Introduction:

Uranerz received Source Material License SUA-1597 on July 19, 2011. The Semi-Annual Report for SUA-1597 is submitted to the Nuclear Regulatory Commission in accordance with SUA-1597 License Conditions 11.1 B and D. The report summarizes the operational and environmental activities and monitoring for the Nichols Ranch and Hank Units for the period of January through June 2012.

### 2. Activities Summary:

Uranerz began construction of the Nichols Ranch Unit Central Processing Plant (CPP) and Production Area #1 (PA#1) on August 2, 2011 as previously reported. Uranerz submitted the 1<sup>st</sup> and 2<sup>nd</sup> Quarter 2012 Reports to the NRC which included a description of activities during the report period. Construction of the CPP, maintenance and office buildings continued during the first half of 2012. The office and maintenance buildings are sufficiently finished to begin setting up office areas; however, there is still some construction work to be completed such as in the laboratory area.

Monitor well installation for PA#1 was completed and installation of Class III wells started during the report period. In accordance with License Condition 10.8 a pump test for PA#1 was completed and the hydrologic test document submitted to the NRC for review. Baseline sampling for PA#1 commenced and is expected to be completed during 3<sup>rd</sup> Quarter 2012. Once completed Uranerz will submit Upper Control Limits (UCLs) and restoration target values (RTVs) in accordance with License Conditions 11.3 and 11.4.

The WDEQ Water Quality Division (WDEQ-WQD) submitted the Deep Disposal Well proposal for public comment and to the EPA in May 2012. The EPA requested additional information and the WDEQ-WQD will be responding in kind.

Construction of the CPP, maintenance and office building along with PA#1 will continue during the second half of 2012.

No operational activities occurred at the Hank Unit during the report period.

### 3. SERP

Per License Condition 9.4E Uranerz shall furnish, in an annual report to the NRC, a description of such changes, tests, or experiments, including a summary of the evaluations made by the safety and environmental evaluation panel (SERP). Uranerz will, in accordance with these requirements, submit the SERP summaries and related text changes in the second semi-annual report, thereby capturing an annual period of evaluations and changes.

#### **4. Status of Production Areas**

##### **Operations**

During the reporting period no production areas were operational. As stated above construction of the facilities and PA#1 continues at the Nichols Ranch Unit.

##### **Restoration**

No production areas are in restoration for the reporting period.

##### **Mechanical Integrity Testing**

The number of wells installed and mechanical integrity test (MIT) status has been reported in the 1<sup>st</sup> and 2<sup>nd</sup> 2012 Quarterly Reports to the NRC to reduce reporting redundancy between agencies requiring the same information.

#### **5. Operational Monitoring**

No production activities occurred during the report period. The following results are a summary of operational effluent and environmental monitoring required to be reported semi-annually in accordance with License Condition 11.1D.

##### **Excursion Well Status**

No wells were on excursion status during the reporting process. Excursion monitoring will commence following lixiviant circulation.

##### **Groundwater Monitoring**

Pursuant to License Condition 12.10 pre-operational water samples were collected from domestic and livestock wells located within 2 kilometers of the proposed production area. The samples were analyzed at an offsite laboratory for natural uranium, radium-226, and those constituents, chloride, conductivity, and alkalinity, as listed in Section 5.7.8.9 of the license application. The analysis results are provided in Appendix A.

##### **Surface water Monitoring**

In accordance with Section 5.7.7.3.1 of the license application surface water will be collected and analyzed for total uranium, Th-230, Ra-226, Pb-210. Given the prevailing dry conditions grab samples from locations of surface water were not able to be collected. There are three surface water self-samplers on site with two located at the Nichols Ranch Unit and one at the Hank Unit. One self-sampler at the Nichols Ranch Unit had collected water during the period. The water sample collected was sent to an offsite laboratory for analysis. Analysis of the Nichols Ranch self-sampler sample is pending and will be reported in the second semi-annual report.

**Meteorology**

Uranerz previously reported that a meteorological station was installed for the collection of data per license condition 12.7. Results of the one year monitoring will be submitted to the NRC under separate cover.

**6. Surety**

All activities that have been conducted to date at the Nichols Ranch ISR Project are covered in the original surety estimate that was submitted when SUA-1597 was issued. The current approved surety is \$6.8 million dollars. No revisions are necessary at this time.

The WDEQ-LQD also requires an annual surety review and therefore Uranerz will review the surety annually in December (during the NRC second half semi-annual report period) thus aligning the NRC and LQD surety reviews for consistency, standardization and reduced redundancy. Uranerz prepared proposed changes to the license text to allow for the December reviews.

**Appendix A – Livestock and Domestic Wells Within 2 Kilometers**

**Appendix A**  
**Livestock and Domestic Wells Within 2 Kilometers**  
**Water Quality Analysis**  
**January-June 2012 Semi-Annual Report**

Sample Location	Sample Date	Uranium-Natural (Dissolved)		Radium 226			Alkalinity (mg/L)	Conductivity (umhos/cm)	Chloride (mg/L)
		Concentration (mg/L)	Reporting Limit (mg/L)	Concentration (pCi/L)	Precision (±) (pCi/l)	MDC or RL (pCi/L)			
<b>Hank Unit</b>									
North Dry Willow	21 Mar 12	0.0582	0.0003	1.3	0.20	0.15	129	2070	10
Dry Willow #1	12 Jun 12	0.0018	0.0003	39.9	0.7	0.2	117	1160	< 5
Brown - F	10 Feb 12	0.0110	0.0003	0.26	0.14	0.16	82	479	3
Brown - WS	11 Jun 12	0.0087	0.0003	0.8	0.1	0.2	85	1100	10
Means #1	2 Feb 12	0.0240	0.0003	0.74	0.18	0.14	98	1620	4
Paden #1	11 Jun 12	0.449	0.0003	3.7	0.2	0.2	111	2010	7
Doble Hill Well #1	Not Sampled, Dry Well								
Connie #2	Not Sampled, Dry Well								
<b>Nichols Ranch Unit</b>									
DW-4L	11 Jun 12	ND	0.0003	0.5	0.1	0.2	104	599	9
DW-4M	7 Feb 12	0.0004	0.0003	0.31	0.14	0.15	221	1130	10
DW-4U	7 Feb 12	0.0650	0.0003	0.50	0.15	0.14	130	1460	5
Nichols #1	20 Jan 12	0.0250	0.0003	0.22	0.12	0.14	130	485	6
Pats #1	20 Jan 12	0.0375	0.0003	0.28	0.11	0.11	124	599	6
Pug #2	23 Jan 12	0.0005	0.0003	0.25	0.13	0.14	234	493	3
Brown 21-6	20 Jan 12	0.0006	0.0003	0.1	0.08	0.10	143	407	6
Dry Fork #3	Not Sampled, Dry Well								
Pug #1	Not Sampled, Dry Well								

**Notes:**

ND =Not Detected at the Reporting Limit

MDC = Minimum Detectable Concentration

RL = Reporting Limit