

## Betty Garrett

---

**From:** Ron Linton  
**Sent:** Tuesday, July 01, 2008 4:30 PM  
**To:** Betty Garrett  
**Cc:** Bill VonTill; Stephen Cohen; James Webb; Elise Striz; Daniel Gillen; Ernesto Quinones  
**Subject:** FW:  
**Attachments:** CommentsonUranerzEnvReport.pdf

Betty:  
Please put this into ADAMS under the Uranerz docket. Publicly available.  
Ron

---

**From:** Shannon Anderson [mailto:[sanderson@powderriverbasin.org](mailto:sanderson@powderriverbasin.org)]  
**Sent:** Thursday, June 19, 2008 2:10 PM  
**To:** Ron Linton  
**Cc:** GMoon@state.wy.us; info@uranerz.com  
**Subject:**

Dear Mr. Linton,

Please find attached comments on Uranerz's Source Materials Application for the Nichols and Hank projects.

Shannon Anderson  
Powder River Basin Resource Council  
934 N. Main St., Sheridan, WY 82801  
307-672-5809 cell:307-763-1816  
[sanderson@powderriverbasin.org](mailto:sanderson@powderriverbasin.org)

Received: from HQCLSTR01.nrc.gov ([148.184.44.79]) by OWMS01.nrc.gov  
([148.184.100.43]) with mapi; Tue, 1 Jul 2008 16:30:17 -0400  
Content-Type: application/ms-tnef; name="winmail.dat"  
Content-Transfer-Encoding: binary  
From: Ron Linton <Ron.Linton@nrc.gov>  
To: Betty Garrett <Betty.Garrett@nrc.gov>  
CC: Bill VonTill <Bill.VonTill@nrc.gov>, Stephen Cohen  
<Stephen.Cohen@nrc.gov>, James Webb <James.Webb@nrc.gov>, Elise Striz  
<Elise.Striz@nrc.gov>, Daniel Gillen <Daniel.Gillen@nrc.gov>, Ernesto  
Quinones <Ernesto.Quinones@nrc.gov>  
Date: Tue, 1 Jul 2008 16:30:14 -0400  
Subject: FW:  
Thread-Index: AcjSN6iop6Tst6TBQ4OJVw3HMnwiJQJgLrtg  
Message-ID: <1FA53ADF29758448974A8AC1118E627E60C9F135D1@HQCLSTR01.nrc.gov>  
Accept-Language: en-US  
Content-Language: en-US  
X-MS-Has-Attach: yes  
X-MS-Exchange-Organization-SCL: -1  
X-MS-TNEF-Correlator:  
<1FA53ADF29758448974A8AC1118E627E60C9F135D1@HQCLSTR01.nrc.gov>  
MIME-Version: 1.0

**ENCOURAGING RESPONSIBLE DEVELOPMENT TODAY ~ FOR TOMORROW**



934 N. MAIN ST. SHERIDAN, WY 82801 (307) 672-5809 FAX (307) 672-5800  
[INFO@POWDERRIVERBASIN.ORG](mailto:INFO@POWDERRIVERBASIN.ORG) [WWW.POWDERRIVERBASIN.ORG](http://WWW.POWDERRIVERBASIN.ORG)

June 19, 2008

VIA ELECTRONIC MAIL

Ron Linton, Nuclear Regulatory Commission  
[rcl1@nrc.gov](mailto:rcl1@nrc.gov)

RE: Uranerz Energy Corporation - Submittal of Source Material License Application to Construct and Operate the Nichols Ranch ISR Project; Comments on Environmental Report

Dear Mr. Linton,

The Powder River Basin Resource Council is submitting the following comments in response to Uranerz Energy Corporation's Submittal of a Source Material License Application and in particular the Environmental Report, available via ADAMS on the NRC website. We hope these comments will inform the completion review process and the Environmental Assessment process for these projects if and when it happens.

The Powder River Basin Resource Council was formed in 1973 by ranchers and concerned citizens of Wyoming to address the impacts of mineral development on rural people and communities. The vast majority of our approximately 1,000 members live, work, and travel in the Powder River Basin, an area that will be impacted in various ways by the Nichols and Hank ISL sites.

As an introductory comment, throughout the environmental report, information is reported in a way to minimize or downplay the impacts of these anticipated operations. While we acknowledge that ISL operations have environmental benefits over conventional surface mining of uranium, an almost decade-long disturbance is not "temporary" or insignificant. Placating public concerns will not benefit anyone involved in debates over new uranium mining projects. As the environmental review process continues, it is important that reports accurately and thoroughly discuss potential environmental impacts in an up-front and easy to understand way. This will allow the public to feel comfortable participating in the process because citizens will know their concerns will be taken seriously and impacts will be properly analyzed.

### **Groundwater Quality**

According to the Environmental Report, "Groundwater will be restored to its pre-mining conditions (as is reasonably achievable) or to its class of use...Groundwater reclamation is anticipated to take approximately four to six years to finish." Given the past history of Power

Resources and difficulty they have had in properly restoring groundwater after ISL operations in the area, we are concerned that Uranerz is over-estimating the ease in which groundwater can be restored.

We are also concerned about the cumulative impacts to groundwater quality as a result of these operations' close proximity to Power Resources and Cogema current and proposed ISL projects. We hope the upcoming Environmental Assessment(s) for these projects takes a harder look at these site-specific and cumulative impacts, as is required by the National Environmental Policy Act.<sup>1</sup>

Moreover, we feel that the Environmental Report under-estimates the likelihood of cross-contamination from these operations. We know from the experience of Power Resources that excursions of production and disposal fluid can be common occurrences.

Additionally, if contractors are not properly trained or wells are not properly constructed, cross-contamination becomes much more likely. Wells have been known to break during ISL operations,<sup>2</sup> which can cause contamination of aquifers below or above the mining zone. Additionally, because of the prevalence of coalbed methane operations and other wells, it is possible that cross-contamination of the aquifers in the area already exists. Contamination of aquifers used for domestic or stock purposes could cause significant health impacts to nearby residents, livestock, and wildlife. Just because few people live in the area does not make these impacts any less significant.

### **Groundwater Quantity**

According to the Environmental Report, Uranerz estimates a 1% bleed of groundwater used during their operations. The Nichols Ranch project is expected to have a flow rate of 3,500 gallons per minute, so 1% of that is 35 gallons per minute. To put things in perspective, if you multiply 35 gallons per minute times the amount of minutes in a year (525,600), you have a bleed off of 18,396,000 gallons per year. Over an expected four year mine life, that would equate to 73,584,000 gallons. Over an expected five year mine life, the Hank project would use approximately 65,700,000 gallons.

As these numbers tend to get glossed over in the report, and are understandably quite alarming for ranchers and other Powder River Basin residents who depend on groundwater for their daily lives, additional explanation is needed in the environmental report. The Powder River Basin has expired prolonged periods of drought, which will most likely only increase because of climate change impacts. How much water will the Hank and Nichols ISL operations consume over the entire projected mine lives? How much of that will be cleaned and re-injected into the same

---

<sup>1</sup> "A necessary component of NEPA's 'hard look' is 'a sufficiently detailed catalogue of past, present, and future projects, and...adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment.'" *Oregon Natural Resources Council Fund v. Goodman*, 505 F.3d 884, 892 (9<sup>th</sup> Cir. 2007), quoting *Lands Council v. Forester of Region One*, 395 F.3d 1019, 1027-28 (9<sup>th</sup> Cir. 2005). Although we recognize that this Environmental Report is not a NEPA document, we assume it will be used in preparing the Environmental Assessment for these projects, so we hope these comments will inform that preparation.

<sup>2</sup> After the recent Power Resources notice of violation came out in the papers, I received some anonymous phone calls from former contractors

aquifer and how much will evaporate or become a waste product? The Environmental Report said that there will be “temporary impacts on groundwater level” but how temporary is temporary? A greater discussion of aquifer drawdown and recharge is needed.

### **Soils**

Although the Environmental Report discusses topsoil, we would like to stress the importance of salvaging topsoil. As mentioned above, the Powder River Basin has been undergoing long periods of drought, and as a result, most soils are exceptionally dry. Topsoil is the best soil any area has and it should be separated, properly kept, and re-used to the greatest extent possible. We encourage Uranerz to go beyond Land Quality Division regulations and implement all best available practices to save topsoil.

### **Surface & Air Quality Impacts**

In spite of the characterization in the Environmental Report, surface impacts will not be temporary and insignificant. 300 acres is a significant amount of land to be disturbed during the life-span of these mines. Roads, well fields, buildings, power lines, and other attributes of these operations will all disturb the surface and contribute to fugitive dust in the area. Particulate matter levels in the Powder River Basin are already high because of ongoing industrial activity coupled with high winds and these operations will contribute to air quality impacts and decreased regional visibility.

In particular, if these operations will be using roads for coalbed methane development, will that use extend the life of those roads? Who is responsible for reclamation if the roads switch from CBM roads to uranium roads? Who is responsible for dust suppressant and other measures to minimize air quality impacts? Will the weight of the uranium trucks impacts these roads in a way that existing uses do not?

Will air monitoring stations be implemented near sources of fugitive dust? The Environmental Report estimates emissions of 135.9 tons/year of fugitive dust. How will Uranerz confirm this without proper monitoring?

### **Cultural Resources**

Has Uranerz undergone tribal consultation for these projects? As the Environmental Report notes, the entire Pumpkin Buttes area is culturally significant.

### **Socio-Economics**

The Environmental Report needs much greater analysis of potential socio-economic impacts. In particular, Uranerz needs to discuss the availability and impact to housing (and particularly housing affordability) and public resources, such as schools, health care, and law enforcement. As mentioned in the Environmental Report, the proposed site is an extremely rural area, so where are workers going to live? If they have to commute from the nearest cities, how will this impact already strained housing markets in Gillette and Casper? How will it impact roads?

Commuting distances will be significant (60 miles from Casper and 40 miles from Gillette) and additional traffic will impact road conditions, fugitive dust levels, and housing affordability. If on-site housing will be used, will worker camps create greater surface impacts?

The Environmental Report says that Uranerz will try and employ “local” workers. All of these industrial projects say they will do that, but with the labor shortage present in Wyoming, where will the workers come from? Additionally, we understand that the uranium sector is experiencing a lack of qualified workers because of a previously depressed market. Won’t Uranerz have to bring in qualified workers from out of state or other areas of the state to make up for this labor gap?

### **Wildlife & Habitat**

Once again, it should be noted that ten years is not a temporary. Most CBM operations also last for a similar span of time, and CBM operations have been shown to have dramatic impacts on local wildlife populations – especially sage grouse.

How will these projects comply with the BLM’s recently released interim management plan for sage grouse and the future Resource Management Plan Amendment for the Buffalo Field Office? According to the Environmental Report, ten sage grouse leks are present within the wildlife study area. What science or other information is Uranerz using to confirm that their operations will not impact sage grouse populations?

Additionally, the Environmental Report fails to properly discuss impacts to wildlife habitat. In particular, according to the Environmental Report, over one half of the project area is sagebrush. Sagebrush habitat takes a long time to properly reclaim. There may also be a loss of wildlife and stock habitat as a result of noxious weeds and other invasive plant species. Will these habitat impacts harm local sage grouse and other wildlife populations? What mitigation measures will Uranerz take to minimize habitat impacts?

Other wildlife species may also be impacted from these projects. The Environmental Report mentions that the project area is used as a migration route for elk and migratory bird species. Additionally, we feel that Uranerz should confirm or deny the presence of other sensitive species before operations begin. Merely stating that there is a “lack of observations and existing data” should not be enough. Additional wildlife surveys and impact assessments are needed prior to operations.

### **Global Warming Impacts**

According to the Environmental Report, the projects are estimated to emit 353.70 tons/year of carbon dioxide. However, the Environmental Report does not discuss the source of these emissions nor does the report link these emissions to global warming impacts. Trucks, power sources (either coal-fired power plants or diesel generators), drilling operations, processing facilities, and other attributes of these operations will all contribute to carbon dioxide and other global warming pollution emissions. The Environmental Report falls short in addressing all “reasonably foreseeable” environmental impacts, including greenhouse gas emissions.

### **Financial Assurance**

We question whether a \$5 million bond will be sufficient for reclamation of these operations. Power Resources and other uranium companies have in the past significantly under-estimated financial assurance requirements, which has left the public at risk.<sup>3</sup> We urge NRC and other public agencies to scrutinize financial assurance estimates, especially in light of realistic expectations for groundwater restoration.

### **Quality Assurance**

We are also concerned about quality assurance for these projects. A greater discussion is needed in the Environmental Report about monitoring and evaluation. How often will the NRC conduct site visits? Does the NRC conduct split sampling or otherwise independently verify sampling results? Will the NRC require independence of samplers (i.e. consultants or lab technicians not just company employees)? And perhaps most important, how will the NRC address excursions, spills, or other license violations in a timely way? The Environmental Report discusses the time frame for verifying and correcting incidents, and we are concerned that this process will not appropriately address the threats posed by these violations. If groundwater is contaminated, clean-up and remediation efforts should start immediately to minimize impacts to public health and the environment.

### **Alternatives Analysis**

The Environmental Report needs to consider a broader range of alternatives. The only options cannot be (1) mine as planned, (2) no mining, or (3) other types of mining. Shouldn't the report consider other alternatives, such as phased operations or only one operation (Nichols or Hank)? Once the NEPA process begins, environmental documents will have to discuss a reasonable range of alternatives. The analysis and comparison of alternatives is often considered to be the heart of the NEPA process, and we hope greater emphasis will be placed on alternatives consideration in environmental documents for these projects.

We thank the NRC for your time and consideration of these comments. We look forward to further participating in the environmental review process for these operations.

Sincerely,  
Shannon Anderson  
Organizer, Powder River Basin Resource Council

cc: Michael Thomas, Environmental, Safety, & Health Manager, Uranerz Energy Corporation;  
Glen Mooney, Wyoming Department of Environmental Quality

---

<sup>3</sup> "Rough calculations based primarily on PRI's figures reveal an alarming scenario...clearly the public is not protected." Wyoming Department of Environmental Quality regarding the Smith Ranch-Highland project.