Message

From: Minter, Douglas [Minter.Douglas@epa.gov]
Sent: 3/30/2015 9:21:01 PM
To: Hoskie, Sadie [Hoskie.Sadie@epa.gov]
Subject: FW: Ex-federal scientist at center of uranium fight - From the Argus Leader - 3.7.2015

FYI, Bill had asked on our call if any other interested parties were being considered in our field trip invitation...

From: Markley, Bill [mailto:Bill.Markley@state.sd.us]
Sent: Monday, March 30, 2015 3:11 PM
To: Minter, Douglas
Subject: RE: Ex-federal scientist at center of uranium fight - From the Argus Leader - 3.7.2015

Yes, good to talk to you. I really recommend you provide equal opportunity to the opposition.

From: Minter, Douglas [mailto:Minter.Douglas@epa.gov]
Sent: Monday, March 30, 2015 4:09 PM
To: Markley, Bill
Cc: Shea, Valois
Subject: RE: Ex-federal scientist at center of uranium fight - From the Argus Leader - 3.7.2015

Thanks Bill: this look familiar.

Good to catch up with you,

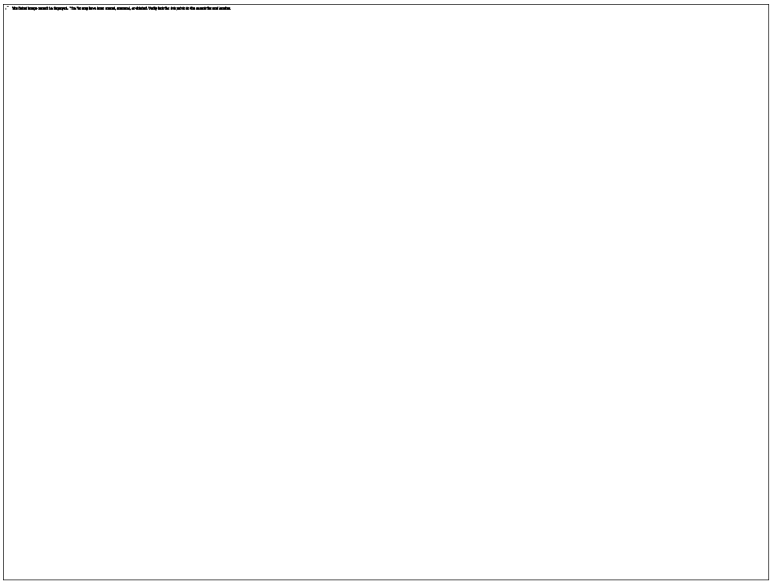
Douglas

From: Markley, Bill [mailto:Bill.Markley@state.sd.us]
Sent: Monday, March 30, 2015 3:04 PM
To: Minter, Douglas
Subject: FW: Ex-federal scientist at center of uranium fight - From the Argus Leader - 3.7.2015

In case you didn't see this one form the Sioux Falls Argus Leader. I'll be sending you one more recent one.

Ex-federal scientist at center of uranium fight

Jonathan Ellis, jonellis@argusleader.com *6:47 p.m. CST March 7, 2015*



The Dewey-Burdock building in Edgemont.(Photo: Jay Pickthorn / Argus Leader)

It was billed as an informational meeting. A chance for Black Hills residents to learn more about a controversial proposal to mine uranium near Edgemont.

But when the meeting in Hot Springs ended on the night of Feb. 7, 2013, project opponents felt they had been snowballed with a sales pitch for the mine. Mark Hollenbeck, the project manager for mining company Powertech USA, had given a glowing appraisal of the project. Benjamin Snow, president of the Rapid City Economic Development Corp., touted uranium and energy production as a boon to the Black Hills.

Of particular concern to opponents was a presentation by Ray Johnson, a scientist with the U.S. Geological Survey who had been studying the Dewey-Burdock site on behalf of the Environmental Protection Agency. Johnson's half-hour presentation left mining opponents questioning whether he and the federal government were on the side of Powertech.

"I remember making the comment when I left that [Johnson] and Ben Snow must have been on the payroll of Powertech, because they were really selling snake oil at the meeting," said mining opponent Rick Summerville in an interview last week.

Project opponents eventually filed ethics complaints with USGS regarding Johnson.

The *Argus Leader* filed a Freedom of Information Act request last year for emails that Johnson received or sent about the Powertech mining proposal at Dewey Burdock. Powertech's bid to mine at the site of an old uranium operation has been among the most contentious issues in South Dakota in years. The company is currently trying to acquire federal and state permits for the project.

The *Argus Leader*'s FOIA request resulted in the release of hundreds of pages of emails to and from Johnson. Among the findings in those emails:

■A pro-Powertech organization, the Southern Hills Economic Development Corp., hosted the Hot Springs meeting and a second one that occurred in May in Custer. The organization, which includes Hollenbeck on its board, reimbursed the federal government for Johnson's expenses to travel to the meetings.

■The emails include several to and from Powertech executives. They show that Johnson had a cordial relationship with Powertech's leadership. At one point, Powertech's president recommended Johnson as a speaker for a workshop on uranium recovery hosted by the National Mining Association.

■While Johnson was friendly with Powertech's leadership, there is no evidence that he provided a biased study. The emails show that Johnson struggled with the bureaucratic hurdles at USGS to get his reports edited and approved for publication. Those hurdles are meant to ensure that USGS's reports are based wholly on science.

Johnson left the federal government shortly after his study of the Dewey-Burdock site was finished. He now works as a scientist for a company in the uranium industry.

In an email to the *Argus Leader*, Johnson said that he has never received money from Powertech. An agreement between the company and USGS stipulated that Powertech would provide the USGS with access to wells and core samples, but it barred any monetary exchange.
"The goal in all of my research and presentations was to provide unbiased scientific information to all stakeholders," he said. "Unfortunately, not everyone has agreed with the 'unbiased' part."

The Hot Springs meeting

The study of groundwater and the chemical composition of the Dewey-Burdock site was almost complete when Johnson, in January 2013, received an invitation from Cindy Turner, then the director of the Southern Hills Economic Development Corp., to attend an informational meeting in Hot Springs. The two already had talked by phone when Turner sent the formal invitation by email.
"We would like to invite you to speak about in situ mining, what you have observed at the Powertech mining location, and how the process is regulated and monitored," Turner wrote. "It is our intent [sic] have a meeting that will present factual and understandable information to the public regarding this project."
Turner also offered to pay Johnson's expenses to make the journey from Denver. But that required approval from the USGS ethics office. Johnson sent an email to Nancy Baumgartner, a deputy ethics counselor in Reston, Va., asking for permission to accept Turner's invitation to pay his expenses.
"This is a great opportunity for the USGS to provide our unbiased science to the local community," Johnson wrote to Baumgartner. Baumgartner replied a few hours. She approved Southern Hills' offer to pay Johnson's expenses.
The 30-minute presentation ultimately landed Johnson in the middle of the controversy surrounding Powertech's proposal.
Hollenbeck had preceded Johnson during the meeting, which was attended by about 100 people. On a few occasions, Johnson referred to Hollenbeck's presentation, as if verifying certain aspects of what Hollenbeck had said. Johnson described the in situ recovery mining technique, in which oxyginated water is pumped into the ground to dissolve uranium and how that uranium-laden water is then pumped back to the surface and extracted. He also described the monitoring wells that surround the mines, which are used to detect contaminated water that might be escaping from the mining site.
But Johnson also pointed out some of the risks associated with ISR mining. About 11 minutes into his presentation, he noted there were no guarantees that an operation wouldn't generate excursions of mining fluids.
Later, he referred to a study of water quality at former ISR facilities. The study, he noted, showed that in some instances, it's difficult to get groundwater quality back to pre-mining levels.
"A lot of things we do as humans, it's not no impact," he told the audience. "There is some impact. I just want to give you an idea of what's the scale, what's the potential impact. My job is not to recommend what is good or bad. It's just to let you know that this is what looks reasonable, and this is what might be expected."
Despite those warnings, opponents came away from the meeting convinced that Johnson was on Powertech's side. They found it galling that he dismissed concerns that the aquifer in which mining would take place wasn't connected to aquifers used for drinking water. Johnson also had told the audience that given the geologic features of the area, it would take 10,000 years for groundwater to migrate from the mining site to Edgemont.
They also were upset that the slides Johnson used included the USGS logo, which made it seem as if the federal government was endorsing the project.
Jillian Anawaty, who recorded the presentation, said she felt that Johnson and the others had given a best-case scenario for mining in which nothing goes wrong.
"That's not reality," she said last week.
Powertech opponent Jim Petersen was not at the meeting, but he said he started receiving emails about it as soon as it was over.
"People perceived the federal government was blessing this project in a very, very positive way," he said.

The *Rapid City Journal* had covered the meeting. The paper's story indicated that the proposal had been pitched as a positive by some of those who participated.
Johnson was concerned that it appeared as if USGS was touting the project as a positive. On Feb. 11, he emailed a link of the story to a superior at USGS. He indicated in his email that his talk had been vetted by a colleague for any "red flags." He noted that "naysayers" — those critical of the mining proposal — were making negative comments about the meeting and the meeting's sponsor. "Just wanted you to be aware of this article, in case we get any inquiries," he wrote.

Pleased at Powertech

While opponents fumed about the meeting, Powertech officials thought it had gone off well. In particular, they liked Johnson's presentation.
On Feb. 20, Powertech spokeswoman Michelle Brich — sister of Sen. Mike Rounds — emailed Johnson for a copy of the talk. Johnson responded that he couldn't release it until it had been cleared for publication.
"No hurry," Brich responded. "It was a good presentation and appreciated."
On March 11, Johnson sent an email to Richard Clement, Powertech's president and CEO. On Feb. 5, Clement had emailed Johnson, recommending him as a speaker for a National Mining Association event later that year. In his March email, Johnson indicated to Clement that he could no longer be a speaker because the USGS was refusing to pay his expenses. The USGS was cutting expenses because of sequestration and budgetary wrangling between the president and U.S. House.
Clement responded that day: "Thanks Ray for the note. It's too bad that it is hard to figure out what is important in this administration. Anyway, you did a great job at the meeting in Hot Springs. Maybe when the budget negotiations are complete, we can get back to normalcy."
In an interview last week, Clement said they had liked Johnson's work over the preceding three years. "We saw the output of his work, and we liked it enough to ask him to be a speaker," said Clement, who recently retired as president and CEO but remains on the Powertech board.
Johnson's conclusions were good for Powertech, Clement said. Those who deny that reality, he added, are simply against mining.
"It was very favorable," Clement said. "The project's pretty simple."
For those who favored the project, the Hot Springs meeting was deemed a success. By April, Turner and Powertech officials were planning another presentation, this time in Custer. The meeting took place in May, and Johnson was again a featured speaker.
About a week later, the USGS published a report that Johnson co-authored. The report analyzed the composition of core samples taken by Powertech at the proposed mining site.
On May 28, Johnson sent an email to Jim Bonner, Powertech's vice president of exploration, alerting him that the report had been published.
"Nothing too surprising if I recall correctly," Johnson wrote, "but the vanadium data (and other metals) will hopefully be useful for you."
He ended the email with "Cheers, Ray."
Bonner responded later that date, thanking Johnson for the link to the report.
"It sounds like your presentation at Custer went very well," Bonner wrote. "We keep getting closer and closer, one of these days ..."

Opponents want explanation

In September, the State Board of Minerals and Environment started hearings on Powertech's mining permit. Johnson was not present. Opponents demanded that he be forced to testify and explain his contention that mining would not cause cross contamination in the region's aquifers. A lawyer for Powertech accused one opponent of slandering Johnson.
The *Rapid City Journal* captured the exchange in an article. Robert Moran, a Colorado-based hydrologist working for opponents, emailed a copy of the story to Johnson and his superiors. Moran wrote that comments made by Powertech's lawyer "are technically irresponsible and reflect very poorly on the USGS and Dr. Johnson."
Johnson did not respond to Moran.

In an interview last month, Moran said he's critical of Johnson, Powertech and others studying the proposal because they are relying on baseline water quality assessments that in his view are flawed. Those baseline water samples already are contaminated from uranium mining that took place at Dewey-Burdock during the 1950s, 1960s and 1970s. Moran thinks it would be more appropriate to establish baselines of what the water was like before mining ever took place there.

He also noted that thousands of bore holes have been drilled at the site over the decades, and a large percentage were never filled. Those holes have created "vertical pathways" between the various aquifers, which would make those used for drinking water more susceptible to contamination if mining occurs.

Moran, who worked for the USGS in the 1970s, didn't approve of Johnson participating in the Hot Springs and Custer forums, which he described as "traveling PR shows" for Powertech.

"You've got a guy doing a dog-and-pony show for a mining company, and he's listed as a survey person," Moran said.

At the same time that mining opponents were attacking Johnson during the permitting hearing in September 2013, emails show that Johnson was applying for a job in the private sector. Many of Johnson's emails alluded to budget constraints, and funding for his study at Dewey-Burdock was eventually eliminated.

Eventually, Petersen and another Powertech opponent, Rebecca Leas, filed ethics complaints with USGS regarding Johnson. In January 2014, Petersen spoke with Baumgartner, the ethics officer who had approved the request to allow Southern Hills to pay Johnson's expenses. By then, Johnson already had departed USGS, but his conclusions still were being used by Powertech and its supporters.

Petersen said he was satisfied that Baumgartner didn't understand the relationship between Southern Hills and Powertech.

"My impression of her was she was trying to the right thing," he said.

Last month, Baumgartner told the *Argus Leader* that she does review sponsoring organizations that request to reimburse USGS scientists for possible conflicts. But in the case of Southern Hills, she said it appeared to be just another economic development organization.

"I know now what the issues are, but I honestly don't know how we would have determined that there was this relationship," she said.

In his email to the *Argus Leader*, Johnson said his talks were approved and followed USGS rules and procedures.

"For those talks, neither the Southern Hills Economic Development Corp. or Powertech provided input into the content of my talk in any way," he said. "Given all of this, the entity that pays for travel expenses is irrelevant for the USGS employee, but may not be irrelevant in the minds of some opponents."

He also added that ISR mining has the potential to have less environmental impacts than the open-pit mining that started at Dewey-Burdock in the 1950s.

"However," he added, "prudent caution still needs to be exercised in the protection of groundwater resources. The exact way to provide this protection is often very site specific and is not always easy to get agreement from all of the nearby stakeholders."

The Dewey-Burdock project

Powertech USA has been working for years to reopen the Dewey-Burdock site 15 miles northwest of Edgemont to renewed uranium mining.

Mining was conducted there in the 1950s and 1960s, and it also was the site of a uranium processing facility. All of it was decommissioned, and the site was cleaned up through the 1980s. Edgemont has been struggling economically ever since.

Unlike the previous open pit mines, Powertech wants to use in situ recovery mining. Under this process, oxygenated water is pumped into an ore body. The dissolved uranium is pumped back to the surface and extracted into yellow cake. Water is returned to the ore body and the process continues.

There is strong support in the community for the project. But others fear that uranium and other toxic metals could be released from the mining area into local groundwater supplies. The opponents have been fighting the project at every turn.

For Powertech, it's been slow going. The company has been at it for years, but mining still appears to be a long way off.

The company has a license from the Nuclear Regulatory Agency, said Powertech Chief Operating Officer John Mays, but it still must get permits from the Environmental Protection Agency and the state for mining and water.