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SD Department of Environment and Natural Resources
523 E. Capitol
Pierre, SD 57501

I am writing on behalf of the South Dakota Chapter of the Sierra Club to request Class B Intervener status in the matter of Powertech's application for Water and Water Discharge permits. We realize that the deadline for intervention has passed; however, the reason for our late intervention is simple. DENR changed the rules in the middle of the game. When the Sierra Club Executive Committee considered intervention before the January deadline, we were told that we would have to be represented by an attorney, which was not possible with our limited budget. Then after the deadline had passed, DENR decided to establish categories of intervention that did not require legal representation. Thus, we feel that it would only be fair for DENR to accept our application for Class B Intervener status today, the new deadline for interveners to select their level of involvement.

As you know, the Black Hills region of South Dakota has endured major uranium mining booms in the past. In far too many cases, the corporations, including foreign corporations, took the resources, declared bankruptcy or left the country and left a radioactive mess behind. South Dakota DENR has identified 263 abandoned uranium mines, prospects and claims in the state, including 140 in Fall River County, the area where the proposed Dewey-Burdock mine would be located. Many are accompanied by a spoils pile that for decades has eroded and migrated with water and wind. Radioactive material and toxic heavy metals have found their way down tributaries to several South Dakota rivers. Neither the NRC nor the SD DENR protected South Dakota from this blight; why should we expect a different result in the future?

Some will argue that in situ mining is safer than pit mining. We may not have piles of radioactive waste on the surface, but polluted water sprayed into the air over a nearly two-square-mile lagoon would create a massive dead zone, and in a region prone to flash flooding, surface-applied hazardous waste might eventually be swept into waters of the state. And the potential for pollution of ground water and aquifers is even more serious. As an editor of both *South Dakota Magazine* and *Nebraska Life*, I researched and wrote about both the proposed Dewey-Burdock mine and the long-operating Crow Butte Mine near Crawford, Nebraska. As you are no doubt aware, Powertech's fellow Canadian company Cameco has a long history of spills and horizontal migrations of contaminated water at the Crow Butte mine.

Furthermore, in 2008 the Wyoming Department of Environmental Quality issued a Notice of Violation to Cameco subsidiary, Power Resources, Inc., for failure to conduct required reclamation at its Smith Ranch/Highland in situ mine near Glenrock, Wyo. The citation also noted that the company's well field installation procedures resulted in "near total disturbance of the native vegetation and soils," and that the company had experienced "an inordinate number of spills, leaks and other releases... pond leaks, well casing failures and excursions." Power Resources' reclamation bond was set at \$38 million, but the Wyoming DEQ estimated the cost would be \$150 million, what the state agency called "an alarming scenario." If such a scenario develops at the proposed Dewey-Burdock project, and if cleanup ever occurs, we assume that taxpayers would likely be stuck with the bill.

But the situation in South Dakota could be far more serious than in Nebraska or Wyoming. As you know, Powertech lacks experience with in situ uranium mining, and the South Dakota Legislature has shifted

major oversight responsibility from SD DENR to a distant and underfunded federal agency that is not likely to closely monitor the operation.

Below the Inya Kara aquifer that Powertech is exploring lies the Minnelusa aquifer, and then the Madison, all vital to future life in the region. Clearly the in situ process threatens these vital aquifers. It would be hard to overstate the importance of Black Hills groundwater. “Water supplies for Rapid City, South Dakota, and surrounding suburban and rural areas are extremely vulnerable to contamination,” wrote three SD School of Mines and Technology researchers in a study of risks to the Madison Aquifer. Their study found that ground water—and any contaminants—flows through the Madison at the rate of one mile every five days.

For a July/August 2009 *South Dakota Magazine* story on the proposed Dewey-Burdock project, I spoke with Mike Cepak, minerals and mining engineering director at SD DENR. “The question,” Cepak said, “is whether they can mine with this method and control the solution. If we say yes, then we’ll look at bonding guarantees, a level that would cover any contingencies. We can see the problems in Wyoming and Nebraska and learn from them. At the Smith Ranch-Highland mine, the company mines and moves on to the next phase without restoring water. Nobody really knows how it will be done and how much it might cost.”

“At Crowe Butte, the uranium is in one layer,” Cepak noted. “In the southern Hills the layers are stair stepped, with shale layers between, and likely water connections between rock layers. Can they mine individual layers without getting excursions into the aquifers? Right now it looks like a very tough site to do. This site might not be suitable even if allowed by law.”

“It would also be nice to clean up the mess from the past before we proceed,” Cepak added. “Some sites are very bad. There’s radioactive water, sulfite rock produces acid, and nothing grows there.” The DENR website states that laws passed in the 1970s and 1980s require operators to “reclaim lands disturbed,” but little reclamation has occurred at the abandoned uranium mines or at the gold strip mines in the northern Hills, except what is funded by tens of millions of taxpayer dollars.

The bottom line: If uranium mining pollutes the water vital to life in the southern Hills, we might know in a year or two, or perhaps after Powertech is long gone. Or, given the “out of sight, out of mind” nature of in situ mining, we might not know for a hundred years. That is a chance we cannot afford to take. The South Dakota Chapter of the Sierra Club believes that with the information currently available, water use and water discharge permits for the proposed Powertech project should not be approved, and we respectfully request the opportunity to present our views at the Powertech permit hearings.

Sincerely yours,

Jerry Wilson
Member, Executive Committee
South Dakota Chapter of the Sierra Club