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Comment On: NRC-2012-0277-0001
Supplemental Environmental Impact Statement for Proposed Dewey-Burdock In-Situ Uranium Recovery Project in Custer and Fall River Counties, SD

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General Comment

See attached file, comments submitted by nine organizations: Bluewater Valley Downstream Alliance, Center for Biological Diversity, Coloradoans Against Resource Destruction, Information Network for Responsible Mining, Nuclear Information and Resource Service, Powder River Basin Resource Council, Sierra Club Environmental Justice, Sierra Club National Nuclear Free Campaign, Uranium Watch

Attachments

Dewey-Burdock-Comments

SUNSI Review Complete
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**Bluewater Valley Downstream Alliance • Center for Biological Diversity •
Coloradoans Against Resource Destruction • Information Network for
Responsible Mining • Nuclear Information and Resource Service • Powder
River Basin Resource Council • Sierra Club Environmental Justice •
Sierra Club National Nuclear Free Campaign • Uranium Watch**

Jan. 10, 2013

Ms. Cindy Bladey
Chief, Rules, Announcements and Directives Branch (RADB)
Office of Administration
Mail Stop: TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Via electronic submission

Re: Comments on Dewey-Burdock ISR Project DSEIS, Docket No. NRC-2012-0277

Dear Ms. Bladey,

Please accept the following comments on behalf of the undersigned organizations regarding the U.S. Nuclear Regulatory Commission's Draft Supplemental Environmental Impact Statement for the Dewey-Burdock Project in Custer and Fall River Counties, South Dakota. The SEIS is a Supplement to the Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities. We incorporate here by reference comments submitted by the Western Mining Action Project on behalf of the Oglala Sioux Tribe, Uranium Watch and Clean Water Alliance.

Our organizations share a concern for the significant and serious environmental problems associated with both historic and contemporary uranium mining and milling in the United States and for the specific problems posed by the Dewey-Burdock Project. It is our belief that the Dewey-Burdock Project will permanently harm both the producing and receiving aquifers and will lead to inevitable and permanent contamination of water supplies in the South Dakota-Wyoming-Nebraska region. We comprehend the NRC's own information from an internal 2009 review that aquifer restoration has never resulted in a return to pre-mining baseline conditions at an in-situ uranium mining operation in the United States. *For that reason, we respectfully urge the NRC to select the No Action Alternative and decline to issue a source material license to Powertech (USA) Inc. for the Dewey-Burdock Project.* This project, in and of itself, adds an

unacceptable level of risk to the region's ground water supplies and the Cheyenne River watershed and overtaxes the aquifers' ability to maintain productive water supplies that the region depends upon now and will continue to depend upon into the future.

Environmental Justice and Cultural Concerns

The No Action Alternative should be selected in order to prevent the unmitigated impacts the Dewey-Burdock Project will place on sites that hold cultural and historic resources important to a number of Native American Tribes, including the closest affected group, the Oglala Sioux Tribe. In addition to the unwarranted impacts to specific archeological resources at the Dewey-Burdock site, the proposal faces an insurmountable obstacle toward general acceptance by failing to recognize the religious and spiritual importance of the Black Hills region to many Native American people, including the Lakota, Crow, Cheyenne, Arapaho, Kiowa, Comanche and Apache peoples, and the inherent incompatibility of this land use with a uranium industry that is incapable of operating sustainably. The Black Hills are subject to formal treaty rights of the Lakota people under the Fort Laramie Treaty of 1868, and the Oglala Sioux Tribe has a standing resolution opposing the Dewey-Burdock proposal that should be respected. Uranium mining is an inappropriate activity at the site, and the site should be analyzed in context of its relationship to the Black Hills and their religious significance to Native American people.

The cultural and historic resource analysis as required under Section 106 of the National Historic Preservation Act has not been completed. NRC must recognize the government-to-government consultation with the affected Tribes that is required under this law. To date, there still is no complete inventory of the Dewey-Burdock site's cultural resources. The SEIS does not include a comprehensive analysis of the environmental impacts to these resources; the information is not available to do so. Supplementing the SEIS after the fact, once additional surveys are conducted, is inappropriate. These issues of Environmental Justice are so paramount that to parcel them away from the core analysis, as flawed as it is, is a pre-emptive removal of their consideration. It is impossible to fully consider these impacts and take the "hard look" required under the National Environmental Policy Act without a complete inventory or without a comprehensive understanding of the broader cultural and regional contexts that would be affected by the proposed action.

The Dewey-Burdock proposal raises many troubling implications for the burden it places on minority and low-income populations. From the national perspective, the legacy of uranium mining and milling has disproportionately burdened Native American populations across the Western United States, as most productive deposits were located on Native American lands. The Dewey-Burdock proposal raises essential questions of fairness about its siting and location, as the SEIS failed to consider alternative locations, but does consider instead the permanent burial of radioactive waste at a site held sacred by indigenous people. In fact, waste disposal is a difficult prospect at the Dewey-Burdock site, and so the SEIS mentions the possibility of transporting that waste for alternate processing and final disposal to the White Mesa Mill in Blanding, Utah. This mill is also located near a reservation and already places significant

burdens and impacts upon a neighboring Native American community in one of the poorest counties in the Southwest. These are not light concerns, and NRC should consider them carefully.

The GEIS and SEIS Do Not Meet the Requirements of NEPA

The NRC's 2009 Generic Environmental Impact Statement for in-situ leach mining fails to provide a sound basis for developing the Dewey-Burdock SEIS. The GEIS has a number of significant flaws, including the lack of adequate alternatives analysis as required by the National Environmental Policy Act, as well as an absence of investigation and analysis of the cumulative impacts of in-situ uranium mining. The GEIS should be withdrawn and NRC should not consider a site-specific proposal that relies upon the GEIS as a foundational analysis. Impacts from in-situ uranium mining that are not properly considered in the GEIS include the reliable regularity of groundwater excursions that result in toxic and radioactive releases at in-situ operations; the prevalence of surface and pipeline spills and leaks; the inability of monitoring wells to detect excursions; the difficult obstacles that prevent successful remediation of excursions; the failure of ISL operations to restore aquifers to baseline conditions; the reliance upon alternative or relaxed water quality standards during reclamation and compliance periods; the lack of consideration of how contemporary mining activities are exacerbated by the legacy of problems from historic mining activities; and the long-lasting and permanent impacts to the drinking and agricultural water supplies; among others. We must also add, with respect, that the failure of federal and state agencies to adequately monitor, regulate and prevent these problems from recurring, again and again, is also a highly relevant issue that must be taken into consideration in any analysis. Simply put, both the GEIS and the Dewey-Burdock SEIS ignore our collective, national history of outright failure with in-situ uranium mining technologies. The only reasonable decision that can emerge from this review must be informed by this history of failure.

The GEIS was never issued as a final NEPA document with an official Record of Decision. The Dewey-Burdock SEIS cannot properly supplement the GEIS without a Record of Decision, as required by NRC regulations. As stated in the SEIS, the GEIS provides a "starting point" for the SEIS, revealing an over-reliance on the earlier document's scope and framing. That fails to fully analyze the site-specific issues raised by the proposed action and the unique geologic and environmental concerns specific to the Dewey-Burdock areas.

Cumulative Impacts Are Not Adequately Analyzed

NRC has failed to analyze the cumulative impacts of in-situ uranium mining in both the GEIS and SEIS. The cumulative impacts of in-situ uranium mining, problematic enough on their own, are exacerbated by the previous era of conventional uranium mining in the South Dakota-Wyoming-Nebraska region. The SEIS describes instances of historic contamination affecting surface areas and ground water supplies that are already documented at the Dewey-Burdock project area, caused by open pit mining that occurred on an adjacent site in the Cold War era. The Angostura Reservoir is downstream of the site and receives surface waters that will be impacted

by the mine as well as a recharge that is affected by the underground hydrology of the region. This reservoir was subjected to a uranium mill tailings spill in 1962 and is still being monitored for the impacts, which could be exacerbated by the start of new mining.

The SEIS fails to consider the development of the Dewey-Burdock Project and the Central Processing Unit as a regional toll facility for uranium production. It is likely that the processing plant, if it is constructed, would receive uranium leachate from other producers in the Black Hills region. The proliferation of additional mining operations in the South Dakota-Wyoming-Nebraska region that could be created by a regional processing plant has not been considered in the SEIS cumulative impacts analysis, even though regional processing activities would have profound implications for water supplies, waste disposal, transportation and hauling, land disturbance, air quality and many other environmental issues.

The cumulative impacts of deep-injection waste disposal into the region's aquifers, not only by uranium mining but by other extractive industries, have not been adequately analyzed in the SEIS. To date, the U.S. Environmental Protection Agency has allowed over 1,500 exemptions to energy companies to inject waste into aquifers and allowing them to become permanently and irreparably unfit as drinking water sources; altogether, 100 aquifers have been polluted in this manner. This includes the deep waste injections occurring at the nearby Crow Butte facility in Nebraska, Christensen Ranch in Wyoming, and other in situ uranium mines in the region. According to a Dec. 26, 2012, report from ProPublica, the EPA has frequently allowed these deep waste injections to occur without precise boundaries or delineations, raising to an unacceptable level the risk of contamination spreading through aquifers vertically. NRC is considering the deep injection waste disposal at the Dewey-Burdock site even though this technique has been prohibited in South Dakota by state law.

The Bureau of Land Management is still reviewing the proposed Plan of Operations for the Dewey-Burdock site and it remains incomplete. Likewise, EPA has not completed its permitting reviews for the Class III and Class V well permits the project requires, and the information related to those reviews is also not complete. The SEIS cannot provide an accurate and specific analysis of the project without being able to consider a final, authorized Plan of Operations and all the secondary permits that will be required.

Purpose and Need Have Not Been Demonstrated

The Dewey-Burdock Project is a speculative proposal that is uneconomical and will bring little benefit to the communities who bear its burdens. The area's dominant industry is agriculture, which relies on clean ground water supplies to support livestock and produce crops. The Black Hills and National Grasslands in proximity to the site provide recreational and tourist opportunities that are significant economic contributors to the region; these opportunities and activities are negatively impacted by the presence of uranium mining facilities. The uranium yellowcake market has been in a severe price depression since 1980 that shows little sign of abating and production activities in the United States have been reducing, not increasing, in the

past year. The domestic market is already adequately supplied by current production and controlled releases of the national stockpile by the Department of Energy. Powertech, the applicant, has limited ability to construct and operate the Dewey-Burdock Project and has never actually produced uranium in the past. The inexperience of the operator create significant concern over its ability to properly operate an in-situ facility in a manner that is fully protective of the environment, to guarantee adequate financial warranties, and to protect the financial interests of taxpayers who must ultimately pay the remediation bill if Powertech fails.

Moreover, the SEIS relies extensively on studies provided directly by Powertech rather than by independent consultants. All information provided by Powertech and submitted to NRC should be independently verified before being incorporated into the SEIS and other NEPA documents.

Impacts to Wildlife

The Dewey-Burdock Project will cause undue impacts to wildlife and loss of important habitat. The site itself provides winter roosting areas to bald eagles, a federally threatened species. Whooping crane and black-footed ferrets are listed species that have identified habitat in the neighboring county and the site provides potential habitat for them to occupy. The site also provides important wintering areas for pronghorn, mule deer and elk. Other species present that will be impacted by the conversion of land from agriculture and grasslands to mining are lion, bighorn, raptors and songbirds, especially Sprague's pipit, which needs open, contiguous grasslands for its nesting sites. The SEIS does not describe or provide any mitigation measures to protect wildlife from these impacts or the loss of habitat.

The Dewey and Burdock areas are also historic range for the greater sage grouse, a candidate species for federal listing. Although a lek on the site was identified and mentioned in analysis, the SEIS fails to grasp the significance of this lek and the critical importance of protecting leks in order to recover the species. No mitigation to protect this lek is proposed in the SEIS. The Bureau of Land Management is currently developing a large-scale habitat conservation plan to protect the greater sage grouse that is likely to enhance protections for habitat. NRC should implement all recommendations for the greater sage grouse conservation plan in order to protect this habitat and assist national goals to conserve the species before federal listing is necessary. This must be done before a final decision is made.

Impacts to Surface and Ground Waters

It is high time for NRC to acknowledge the failure of previous in-situ mining operations to prevent contamination of ground water supplies and to start taking serious steps to overcome these problems. The Dewey-Burdock Project will use an estimated 94 billion gallons of water over the life of the mine. Considering what we already know about excursions, leaks and the inadequacy of aquifer restoration, this is an unacceptable amount of water to lose in a semi-arid region where aquifers are already under enormous stress.

The lack of clarity regarding which regulatory agency will properly oversee the Dewey-Burdock Project is of great concern. Because the SEIS contemplates the use of EPA-permitted Class V injection wells to dispose of the waste, the mine will not be regulated by on-the-ground staff in South Dakota; rather, it is likely to be subject to regulatory oversight from as far away as Denver. The very nature of in-situ mining operations underscores the need for close, regular monitoring by independent agencies, but it appears that is not the plan for Dewey-Burdock. Lack of such close oversight will naturally result in increased problems and unmitigated contamination events.

Powertech proposes to mine uranium in the Inyan Kara Aquifer Group, located close to the surface at the Dewey-Burdock site. Unfortunately, underlying the producing aquifer is the Minnekahta Aquifer, the major aquifer of the Black Hills region; the Minnelusa Aquifer; and the Madison Aquifer, which provides drinking water for all the surrounding communities and residents. The Minnelusa aquifer is hydraulically connected to the Inyan Kara Group and the Madison, yet the SEIS does not adequately analyze the risks of vertical migration of contaminants and transfer between aquifers. This poses significant risk to the region's drinking water supplies.

The option to dispose of treated wastewater by land application to support irrigation of alfalfa or other crops is not sensible. Current regulations are not adequate to ensure that human health is protected through waste water standards for such disposal. This method of disposal should not be considered in the final SEIS.

In its designs for surface facilities, Powertech proposes an inadequate containment system for handling produced water and waste streams. In addition to the radium settling ponds, the outlet and surge ponds and the central plant's brine pond should all have double liner containment systems. Given the future uncertainties over global climate change, it is insufficient to analyze the ability of stormwater management features for the 24-hour, 100-year flood event; these features should be analyzed for the 500-year event.

The baseline ground water study, comprised of data from 19 wells, should be fully completed before the SEIS is finalized; the existing baseline data is inadequate to fully plan for mitigation and controls. Already, the majority of monitoring data from these wells showed elevated levels of uranium, radium, gross alpha and radon from historic mining activities. Rather than carefully detailing mitigation and addressing the complexity of water contamination problems at the site, NRC glosses over these facts and makes a very doubtful determination that the majority of these impacts will be "small," and with a further, faulty bit of reasoning, concludes that they are acceptable.

For all these reasons, we urge the NRC to select the No Action Alternative and deny the license application for Powertech's Dewey-Burdock Project. Thank you again for your consideration of these comments.

Sincerely,

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