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Docket: NRC-2012-0277

Supplemental Environmental Impact Statement for Proposed Dewey-Burdock In-Situ Uranium Recovery Project

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

Document: NRC-2012-0277-DRAFT-0123

Comment on FR Doc # 2012-28425

11/26/2012
77 FR 70486

Submitter Information

Name: Nancy Hilding
Address: United States,

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RULES AND DIRECTIVES
BRANCH
USNRC

General Comment

164

Comments on Docket number
NRC-2012-0277

I attach the Clean Water Alliance comments and incorporate them by reference to my comments.

I oppose this project as currently planned and am concerned about contamination of other aquifers due to faults and not properly plugged old drilling exploration holes.

I also oppose due the connected action of radio active waste disposal. When you dig the material up and use it, you will eventually have to dispose of it as radio active waste. America and other nations have not yet found a solution to rad-waste disposal. The federal government spends tax dollars storing the rad-waste as searches for solution The "final" disposal and interim containment of "post consumer" rad-waste needs to be discussed as connected action and cumulative impact.

Thanks
Nancy Hilding

SUNSI Review Complete
Template = ADM - 013
E-RIDS= ADM -03
Add= H. YILMA (hxy 1)

P.O. Box 591
Rapid City, South Dakota 57709
January 9, 2013

Cindy Bladey, Chief, Rules, Announcements and Directives Branch
Division of Administrative Services
Office of Administration, Mail Stop TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
Fax: 301-492-3446

RE: Docket Number NRC-2012-0277, Proposed Dewey-Burdock Project

Dear Ms. Bladey:

These comments on the draft Supplemental Environmental Impact Statement (DSEIS) in the above case are filed on behalf of the Clean Water Alliance, a non-profit corporation based in Rapid City, South Dakota. The person who drafted these comments, Liliias Jones Jarding, has a Ph.D. in Political Science with a focus on Environmental Policy and has spent much of the last 30 years researching uranium mining.

We would like to begin by offering eight general comments. These will be followed by more detailed comments.

The first comment we would like to make is that the issuance of the draft SEIS was improperly timed for several reasons. These include:

- A second draft license for this project was issued in the last few days. This draft license is likely to include changes that are supposed to be topics included in a draft SEIS. Given this development, the draft SEIS should be reissued with the new information included, and the comment period should be re-started.
- The SEIS was issued before all relevant information was available. Among other things, this includes:
 - Information that is still not available from the section 106 tribal consultation process. As the impacts on cultural and historical properties may be large, full information is required before a draft SEIS is issued.
 - The site for disposal of the project's byproduct wastes is speculative, and there are indications that the Blanding site is unable to take waste from the proposed project.
 - The site for disposal of the project's byproduct wastes is speculative. This means that the relevant transportation route for this material is not included in the DSEIS. It should be, so the public can be fully informed and can comment on this aspect of the project's potential environmental impacts. Traffic issues are substantially different in Denver than in rural areas.
 - The site for further processing of the project's yellowcake is not set. This means that the relevant transportation route for this material is not included in the DSEIS. It should be, so the public can be fully informed and can comment on this aspect of the project's potential environmental impacts. Traffic issues are substantially different in Chicago than they are in rural areas.

- Livestock radiation sampling.
 - Emergency procedures for truck accidents.
 - Air dispersion modeling.
 - Wetlands mitigation plans under Section 404 of the Clean Water Act.
 - Pump tests, which are critical to understanding whether in situ leach mining can even be controlled on this site, as you note in the draft SEIS, especially since past research indicates that there are leaks between aquifers. The DSEIS and associated documents also indicate impacts on old uranium projects and existing leaks from old boreholes.
 - Locations of monitoring wells, which is critical information.
 - "Additional hydrogeological investigations" that are not defined, but that are necessary to insure that public health and the environment are protected.
 - Detailed mitigation plans. The current discussion of mitigation is short and perfunctory.
 - The manner in which old boreholes will be controlled. The applicant's "commitment" to perform this vital function is not sufficient, especially when the DSEIS notes uncontrolled boreholes on the project area and when past leakage between aquifers on the site has been documented.
- The draft SEIS was issued just before Thanksgiving, with comments due in a short, 45-day period that went through the holiday season. This is designed to minimize public comment. However, the NEPA process was created to maximize public information and input. The public that is interested in this project includes primarily people who are not able to focus on this project full-time. Rather, they must fit the reading of an 800-plus-page document into their non-work hours. The length and the timing of the comment period are clearly insufficient for actual public information and input. After a complete draft SEIS is issued, there should be an additional, longer comment period to allow proper implementation of the NEPA process.

The second general point we would like to make is that the scale within which impacts were considered is often incorrect. Where impacts would obviously be large, the impacts were considered compared to the entire land base of the project area. This has the effect of "diluting" the impacts. Taken to an extreme, one could say that no project ever had large impacts, if considered based upon its impacts on the whole world. The proper process would be to determine the nature, extent, and level of the project's impacts on the actual impacted area for each type of impact.

Our next general point is that the use of the Generic Environmental Impact Statement for a specific location is not appropriate. This is particularly the case at the Dewey-Burdock site, where the geology is not "average." The site is at the edge of a major uplift, with complex geology that is not fully understood. Formations that are underground on some portions of the site are above-ground on others. There are faults on either side of the project area. Breccia pipes are common in the area, and it is not possible for the applicant to completely rule out their presence in the project area. There are 4,000 old exploration holes, and some of them are leaking aboveground. Past research indicates hydrological connections between aquifers in the immediate area due to past drilling and/or inadequate aquitard. All geological data should be reviewed by an independent third party, and additional studies should be done, as indicated, before this project is considered further. Public hearings should be held that are specific to the unique issues presented by this proposed project.

Along the same lines, all data provided by Powertech Uranium should be independently verified. At the least, it is not in the public interest to base the discussion of the proposed project's impacts almost solely on data provided by the company seeking a permit -- and profits -- from the project. At most, this practice provides an opportunity for unscrupulous operators to wantonly pollute the environment.

After all data is fully reviewed and independently verified, the draft SEIS should be reissued with full information, and public hearings should be held.

A fifth general point is that the State of South Dakota no longer monitors in situ leach uranium mining operations, as a result of a state law passed two years ago. The DSEIS talks a great deal about how Powertech says it will monitor its operations. It does not talk about who will be monitoring Powertech. The closest NRC office to the site is in Denver. Will the NRC hire an additional full-time staff person to take the place of state staff who no longer regulate ISL operations? Or will NRC's regulation be in name only, leaving the public, water, and the environment at risk? This issue should be discussed clearly and fully in the SEIS, so that the actual impacts on local resources can be understood, so that the public can be fully informed, and so that public input is based on the reality of the situation. The critical question is left unanswered by the draft SEIS -- Will public resources be adequately protected?

A sixth general point is that the draft SEIS says that project impacts would be "small" in a number of instances only because the applicant has said it will do various things. This limits the consideration of impacts, because it means the DSEIS only considers the "best case" scenarios that include the successful use of mitigation strategies. These mitigation strategies are not clearly defined in the draft SEIS, and according to the U.S. Geological Survey, mitigation has never restored an aquifer to baseline conditions. Especially under these circumstances, the draft SEIS should consider not only the "best case" scenarios, but should also consider the impacts of problems typically found at ISL uranium mines -- leaks, spills, excursions, and water contamination after remediation has stopped. The public and the environment should be protected based on "worst case" scenarios. If that cannot be done, the project should not be allowed to move forward, and the No-Action Alternative should be selected.

Our seventh general observation is that the draft SEIS fails to consider all reasonable alternatives to the proposed project. It only considers the extremes of doing the project or not doing the project. Several other alternatives include:

- reclaiming the existing uranium mine on the project area before proceeding;
- successful reclamation in one mined area before any additional area was mined;
- removing the BLM land from the project area; or
- allowing only one processing plant.

Our final general point is about the nature of the applicant. The applicant has never mined uranium. Its principals' history includes a major failed project, Atlas's attempt to clean up the tailings pile at Moab, UT. The company doesn't have anything close to the resources needed to bring the project to fruition. Its application was rejected twice by the State of South Dakota as incomplete, after which time the company sought legislation to remove state regulatory authority, rather than to submit an adequate application. Its application was also initially rejected by the NRC as incomplete, and efforts to complete the application floundered to the extent that the safety review was suspended. The company's inexperience, history, and lack of funding are key variables in the applicant's ability to manage the environmental aspects of the proposed project and should be considered in the draft SEIS and in the NRC's decision on whether to issue a license.

Now we turn to some specific observations about the matters considered in the draft SEIS. We would like to discuss fourteen issues.

First, the DSEIS's suggested protections against flooding are not adequate. Bulk storage tanks are to be protected only against a 25-year event. Other facilities assume a 100-year flood, and some mining-

related activity is allowed within the 100-year flood plain. All planning should consider a 500-year flooding event, partly because weather is expected to be more severe in the future and partly because toxic and radioactive materials are involved. No facilities should be allowed within the 500-year flood plain. The weather in the Black Hills and along its edges includes strong storm events with downpours that involve overland and stream flooding.

Second, the probability of wildfire should be considered as both a safety issue and an environmental issue. There have been at least four wildfires within a few miles of the proposed project site in the last year and a half: the Coal Canyon fire (5,200 acres), Barrel fire (3,200 acres), Cannon Ball fire (.1 acre), and Mossagate fire (7,000 acres). Fires in the area are typically caused by lightning, but may also be caused by vehicles. There will also be bulk flammables on-site. As you know, this has been an issue at other ISL mines, so it is not just a theoretical matter. The impacts of a wildfire on wellheads, electrical lines, header houses, and the central and satellite processing plants should be studied. The resulting information and a strong mitigation strategy that recognizes that wildfires cannot always be prevented, turned, or stopped should be included in the draft SEIS.

Third, in addition to the potential impacts of a loss of electricity due to fire, the potential impacts of ice, a vehicle accident, and wind on overhead power lines should be considered.

Fourth, before any land application occurs, the liquid waste should also be tested for arsenic, which commonly occurs with uranium in this area, and for selenium, which has bioaccumulated at other land application sites and is toxic to animals.

Fifth, wildlife are not adequately protected by the measures suggested in the draft SEIS. Several species that are threatened, endangered, or candidate species are found on or near the proposed project site: bald eagles, black-footed ferrets, whooping cranes, Sprague's pipits, and greater sage-grouse. The DSEIS assumes that animals will simply leave the site. This is not a mitigation strategy. Birds are particularly endangered by this project, and there should be clear protection from contact with project fluids, with ponds, and with land application sites. If these protections cannot be provided, the project should not be built. There are a number of other ways to meet the nation's energy demand. There are few or no options for these sensitive species.

Sixth, the draft SEIS provides inaccurate information on the source of project workers. The draft SEIS says that workers will come from nearby towns in Fall River and Custer Counties and from Newcastle, WY. The applicant has said that most of the jobs will be appropriate for graduates of the South Dakota School of Mines in Rapid City. Most people in the counties noted in the draft SEIS do not have college degrees, much less degrees in engineering or chemistry. The agency needs to do more research and provide accurate information on where project workers will come from.

Seventh, there is a lack of specificity about the percentage of water used in the project that will be consumed as bleed. There is a huge difference between .5% of the water being consumed and 3% of that amount being consumed. The draft SEIS later says that as much as 17% could become bleed water during restoration, which would be going on for most of the project's life. At least 30% of the water being cleaned through reverse osmosis would become waste (this is lower than at some other RO operations). The NRC should take into account the fact that the company has applied to the State of South Dakota for permits to pump 9,000 gpm for 20 years. With this amount of pumping occurring, there is a clear need for detailed and accurate information on how much water would be consumed by the proposed project and on how much would become wasted. Certainly there is some data available

from other mines that would instruct the reader on how much water would actually be consumed and wasted by the project. This information should be provided, so that readers can determine the impacts of the project.

Eighth, and along the same lines, estimates of how much water will be consumed -- whether as bleed or after reverse osmosis -- should be stated in terms that the general public can understand, rather than as a flow rate. The public, which is the draft SEIS's intended audience, understands gallons of water. They have little or no familiarity with gallons per minute.

Ninth, oddly enough, the DSEIS does not estimate worker exposure to radon or other radioactive contaminants. This is quantified as an amount of radon released on site. The statements are made that radon will dissipate by the time it reaches the property boundary and that other radioactive contaminants will be kept to an ALARA level. But these statements duck the environmental issue, which is human exposure, which will occur both outside and in buildings. This issue should be considered thoroughly in the DSEIS.

Tenth, the draft SEIS fails to recognize the artesian nature of water at the site. According to the applicant's Technical Report, there are 12 flowing wells from the Fall River formation and 14 from the Lakota formation within 2 km of the proposed project site. This is important information that should be included in the document that the public will use in considering the environmental impacts of the proposed project.

Eleventh, the draft SEIS grievously mischaracterizes the environmental justice impacts of the proposed project. While acknowledging the sacred nature of the Black Hills to the Lakota and other Great Plains peoples, the DSEIS places this status with historical concerns. But this concern is not historical. The Black Hills are still sacred to native people. This is an active environmental justice issue. The DSEIS states that impacts would not be different for Native Americans than for other groups. That is patently untrue. The violation of one's religious center -- one's Jerusalem, for a comparison -- is clearly a large environmental justice impact, and one that will not be experienced by non-Indian populations.

Twelfth, the claim that there will be no runoff from land application of wastes is ridiculous. This would involve over 1,000 acres of land in an area that has torrential downpours when it rains. Clearly, this situation should be studied more carefully, and mitigation measures should be properly designed and explained.

Thirteenth, the draft SEIS states that standards set forth in the GEIS for aquifer restoration would be used. These standards should be specified in the DSEIS, so that the public has the ability to learn about the proposed end-quality of the water after mining. The statements that the water might be returned to background, or to MCLs, or to "NRC-approved alternate concentrations limits" is not informative. The limits that the applicant will have to meet should be stated clearly and precisely up front, so the ability of the applicant to meet those limits can be judged by both the agency and the public.

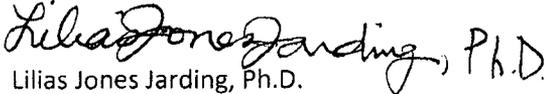
Fourteenth and last, the draft SEIS notes that there is the possibility that the processing facilities at Dewey-Burdock could be used for other projects. In fact, the applicant has said that they would like their facilities to be used regionally. The DSEIS then mentions -- but does not really consider -- the use of Dewey-Burdock's processing facilities for other proposed Powertech projects. This is incomplete. There are at least six uranium companies active on the western side of the Black Hills. While we know one plans to build its own processing facilities, the intentions of the others are not public, so far as we

know. The remaining companies -- and any others we don't know about -- may also want to use the Dewey-Burdock facilities. This possibility should be researched and considered in the DSEIS, with its attendant transportation, worker exposure, water use, and other impacts. The consideration of cumulative impacts should also include the proposed rare earths mine, with its radioactive wastes, and past uranium mining. There are about 170 old mines and prospects in the southern Black Hills, according to EPA databases.

This concludes our comments. If you have any questions, please let me know.

Thank you for your consideration of our input on this important matter.

Sincerely,

 Liliad Jones Jarding, Ph.D.

Liliad Jones Jarding, Ph.D.
Clean Water Alliance