



The State of Wyoming



# Department of Environmental Quality

Dave Freudenthal, Governor

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March 12, 2004

Mr. Gary S. Janosko, Branch Chief  
Fuel Cycle Facilities Branch  
U.S. Nuclear Regulatory Commission  
11545 Rockville Pike  
Rockville, MD 20852-2738

RE: Site Closure Plan for Western Nuclear Inc.'s Split Rock, Wyoming Site  
Source Material License SUA-56 - 40-1162

Dear Mr. Janosko:

I am writing to address the remaining concerns we have with Western Nuclear Inc.'s (WNI) Site Closure Plan. Our meeting between Bill von Till of your staff on November 18, 2003 was very helpful in clarifying many of the issues we've had with the proposed Site Closure Plan and how the Nuclear Regulatory Commission (NRC) considers and evaluates the proposals in that document.

Prior to that meeting, the Director of the Wyoming Department of Environmental Quality (DEQ), the Wyoming State Engineer, and Water Quality Division staff met with WNI representatives (July 17 and October 9, 2003) to discuss issues related to the Site Closure Plan and the remedial alternatives that were evaluated. Those meetings provided both WNI and DEQ an opportunity to discuss and resolve several concerns with the proposed Site Closure Plan we had previously expressed.

The proposed Site Closure Plan is of particular interest to the DEQ because of the long term adverse effects caused by contaminant plume migration to valuable and extensive groundwater resources underlying the site; concerns with predicted adverse impacts to existing private domestic and livestock wells within the Red Mule Subdivision; and the inability to prevent or control influences to the path and velocity of plume migration resulting from future groundwater development and pumping on private properties within, and exterior to the site. Regarding private property within, and adjacent to the site, groundwater is classified according to Wyoming's system as Class I where its used, or suitable for domestic use, and Class III where its used, or suitable for livestock use. The site is also bounded by the Sweetwater River, a Class 1 surface water, on the north.

In our June 9, 2003 letter to your predecessor, Ms. Susan Frant, we explained that it is our responsibility to protect and, when necessary, restore the quality of surface and groundwater for all existing and potential future uses. We have a fundamental concern with the concept of allowing the uncontrolled migration of contaminants into unaffected adjacent groundwater, even when property, or compliance boundaries may be miles away. When technically practicable, our regulations require the control of pollution where it exists in order to protect the environment.

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Provisions for allowing technical impracticability and alternative groundwater restoration standards at similar sites in Wyoming are established in Wyoming statute (W.S. §35-11-1605) and should be thoroughly considered by the NRC. For these reasons we believe that accepting uncontrolled migration, or dilution, as a final remedy over such a long period of time requires the highest degree of scrutiny, analysis, and certainty, and should never be accepted unless provisions are made to ensure periodic and regular assessment of emerging remedial technologies and the economic factors applied to remedial cost/benefit analyses.

One aspect of the Closure Plan that remains of particular concern to us is the approach, or lack of one, used to establish the value of the state's groundwater resources which become either unuseable or degraded if NRC accepts the proposed remedial option. In its analysis, WNI applied a value of \$15 per acre to estimate this value, which we believe is unrealistically low. We are aware that in other areas near the site, irrigators currently pay approximately \$7.50 per acre-foot for groundwater. Given the significance of the proposed action this should be a starting point for establishing a present value of that groundwater which becomes impaired above ambient, or background quality, and serve as the basis for determining future resource value over the life of the remedy. On a related matter, we also believe that the proposed costs associated with the two more expensive remedies evaluated seem excessive, given that there are technologies available that could reduce the amount of waste water generated. Consideration for these reductions should effectively diminish remedial costs.

During WQD staff discussions with Mr. von Till in November we also discussed the requirement for evaluating the three target levels discussed on page 4-36, Section 4.3.3.3 (4) of NUREG 1620. In our review, the Site Closure Plan does not clearly discuss which three target levels were applied, their basis, nor whether the "as low as reasonably achievable" (ALARA) analyses is appropriately applied toward those levels. Further discussion and clarification is needed.

We also have concerns with the ability of the site caretaker (DOE) to monitor and enforce institutional controls, particularly covenants associated with private properties within the Long Term Care Boundary (LTCB). We do not see any restrictions that would prohibit pumping from the aquifer in ways that could adversely alter the direction and velocity of contaminant plume movement. Given the longevity of the proposed remedy and unknown limitations to the future value of Wyoming's groundwater resources, we believe such controls are necessary to prevent problems from developing over the life of the proposed remedy. We believe NRC should ensure that the appropriate controls and mechanisms are in place before accepting remedies that rely so heavily upon institutional controls.

In the case of private properties in the Red Mule subdivision, we are not aware of how it will be possible to prevent residents from using the water as they wish, including drinking the water. As we've seen in the case of the Title I site at Riverton, Wyoming, institutional controls fail when they are not fully encompassing, formally established and accepted by the appropriate governing bodies, periodically monitored and enforceable. Given the critical application of institutional controls to the successful implementation of a remedy at the WNI site we feel that it's especially incumbent upon both the NRC and the DOE to ensure that Wyoming is provided an opportunity to review and comment on the LTSP before the Site Closure Plan is accepted by the NRC.

In addition to the above issues, the Wyoming State Engineer offers the following comments:

1. The controlled area must be defined so as to provide adequate safety to adjoining properties and associated groundwater uses, wherever they could exist.

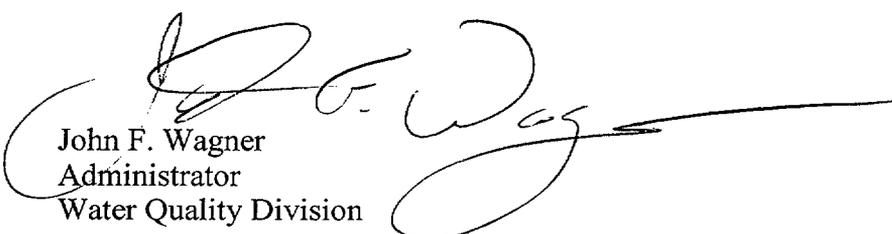
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2. Institutional controls (e.g., restrictive covenants) for this area must prevent the future use contaminated groundwater for certain uses. The State Engineers Office may then use those institutional devices to deny applications for groundwater permits in the controlled area for certain uses.
3. Provisions for conducting future modeling, should a large future groundwater use be developed, must be included in the Site Closure Plan.
4. An adequate groundwater sampling and analysis program must be established to verify the accuracy of the modeled predictions, over time. The groundwater sampling and analysis program should also serve as a warning mechanism to protect groundwater users such as those in the Red Mule Subdivision.
5. Funding must remain in place and available to mitigate future impacts, should they occur, to existing water uses.

I hope that we can continue to meet on a regular basis to discuss uranium mill tailings site issues that are of mutual concern to both the NRC and the DEQ. The annual meeting in Denver seems to be a convenient opportunity for us to meet to discuss issues and plans for on-going and anticipated activities at the Wyoming sites.

Please feel free to contact me at 307-777-7781 should you have any questions concerning this letter or our expectations for the Split Rock facility.

Sincerely,



John F. Wagner  
Administrator  
Water Quality Division

JFW/bb/4-0239.ltr

- c: Mr. Bill von Till, NRC  
Mr. John V. Corra, Director, DEQ  
Mr. Patrick T. Tyrrell, State Engineer  
Mr. Rick Chancellor, Administrator, LQD  
Mr. Kevin Frederick, WQD  
Mr. Mark Thiesse, WQD, Lander  
Ms. Roberta Hoy, LQD  
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