

**Department of Energy**  
Washington, DC 20585

March 18, 2016

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Deputy Director  
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Washington, DC 20555-0001

Subject: Response to U.S. Nuclear Regulatory Commission (NRC) Comments on the  
2015 Annual Inspection Reports for Uranium Mill Tailings Radiation Control Act  
Title II Sites

To Whom It May Concern:

In response to NRC's letter to Richard Bush from Dominick Orlando dated January 21, 2016, regarding "U.S. Nuclear Regulatory Commission Staff Review of *2015 Annual Inspection Report for Uranium Mill Tailings Radiation Control Act Title II Sites*," U.S. Department of Energy Office of Legacy Management (DOE-LM) provides responses to NRC's comments as follows:

**NRC Comment 1**

"For the Maybell West, Colorado site, the report indicates that the boundary markers were not checked during the inspection. The NRC staff notes that the last time the DOE report stated that the boundary markers were checked was during the 2011 inspection. The NRC staff recommends that the DOE-LM check the boundary markers during the next inspection."

**DOE Response**

DOE-LM will inspect the boundary monuments during the 2016 annual inspection as recommended.

**NRC Comment 2**

"For the Sherwood, Washington disposal site, the NRC staff questions whether the un-compacted cover continues to settle. Section 2.4.1 of the 2001 Long-Term Surveillance Plan (LTSP) states that the un-compacted reclamation soil-cover system is designed to withstand up to 10 feet of settlement with no adverse impact on the performance of the cover. The LTSP provides settlement measurements that were originally obtained in 1999. At that time, the difference between the highest and the lowest elevation measurement was 6 feet. The NRC is unaware of any measurements collected by the DOE-LM since 1999, although the LTSP does not specifically require routine elevation monitoring. As long as the settlement of the cover does not exceed 10 feet, the design criteria of the cell will not be exceeded. The NRC staff recommends that additional elevation measurements be collected, to ensure that the cell cover is no longer settling."

NM5520



**DOE Response**

DOE-LM has not measured the elevation of the disposal cell cover since the general license took effect. In response to the NRC comment, however, DOE-LM will conduct a survey of the disposal cell cover in 2016 and compare the results to 1999 data to determine the amount of settlement that has occurred. DOE-LM will also review design documents to determine how settlement in excess of 10 feet will affect cell cover performance. The survey results and the evaluation of the effects of settlement will be included in the 2016 annual report. It should be noted that there have been no observed adverse impacts to the disposal cell.

**NRC Comment 3**

“For the Edgemont, South Dakota disposal cell, the NRC staff noted a discrepancy between the wording of the 1996 LTSP and DOE-LM’s decision to allow livestock grazing on the property. Section 3.6.1 of the LTSP states that fences were installed to prevent livestock grazing. However, DOE-LM currently allows on-site grazing. The NRC staff recommends that DOE-LM review the potential discrepancy between the NRC-accepted LTSP, which does not specifically authorize grazing, and the DOE-LM’s current practice of allowing livestock grazing on the property.”

**DOE Response**

The LTSP (Section 3.6.1) states that “The disposal basin has been fenced with a 4-foot high, 3-strand barbed wire fence to prevent livestock grazing.” Prior to that statement, the same section says “The site has been revegetated with self-sustaining native grass species. After vegetation has been established, no remedial vegetation activities are anticipated.” The fence referred to in this statement is an interior fence that prevented livestock from grazing the grass-covered disposal cell and associated drainage structures while vegetation established. The remainder of the site, which was undisturbed by cell construction activities, was already being grazed by a rancher retained by the mill licensee. The LTSP does not state that it would be unacceptable to allow grazing in the future in the basin area.

DOE-LM honored the prior grazing agreement between the licensee and the rancher when the site was transitioned to DOE-LM in 1996. Because the 1997 annual inspection noted healthy vegetation on the cell cover, DOE-LM had begun to allow controlled grazing within the interior fence in spring 1998 to promote a more uniform distribution of cattle on the site. DOE-LM informed NRC of the grazing by including it in the Edgemont chapter (Section 4.2) of the 1998 annual inspection and monitoring report, which says “DOE-LM intends to manage this range by controlled grazing. About two dozen cattle were on the site the day of the inspection. The grass is well established and was not over-grazed when inspected.” DOE-LM did not seek specific concurrence from NRC to allow grazing on the cell cover.

In 2008, DOE-LM began a 5-year program of annual vegetation and rangeland assessment to ensure that grazing was not causing harm to the disposal cell. DOE-LM completed this assessment in 2013 and concluded that vegetation goals are being met. Grazing is a beneficial component of vegetation management at the site. In addition to documenting vegetation health during annual inspections, vegetation assessments will continue to be conducted every 2 to 5 years to ensure that grazing is properly managed.

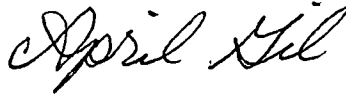
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DOE-LM has no plans at this time to revise the LTSP, but Section 3.6.1 will be modified during the next revision to include a clarification of the purpose of site fencing and to eliminate the clause related to prevention of livestock grazing. When revised, the LTSP will be submitted to NRC for acceptance. There have been no adverse effects on the disposal cell as result of this managed grazing, but if there are, DOE-LM will reevaluate the practices.

Please contact me at (970) 248-6073 if you have any questions. Please send any correspondence to:

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Sincerely,



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