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Lawrence J. Corte
President & General Manager

May 11, 2015

Dominick A. Orlando
U.S. Nuclear Regulatory Commission
Materials Decommissioning Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety
and Safeguards
Mailstop T-8 F-5
Washington, DC 20555-0001

Re: Action Item Submittal for Groundwater for the Western Nuclear Incorporated Site in Jeffery City, Wyoming from the March 17, 2015 Meeting with NRC (License Number SUA-56; NRC Docket 040-01162).

Dear Mr. Orlando:

On March 17, 2015, Western Nuclear Incorporated (WNI) met with NRC staff at NRC headquarters in Rockville, Maryland, to discuss the institutional control and groundwater issues associated with the decommissioning of the WNI Split Rock site in Jeffery City, Wyoming. In the NRC Meeting Summary for that meeting date April 16, 2015, NRC identified four WNI action items related to groundwater, as presented below.

- *WNI to provide measured potentiometric head data for the site (both Northwest and Southwest Valley) and compare the observed/measured data with modeling input data and the head values predicted in the 2003 ground water model.*
- *WNI to assess the relationship between observed ground water monitoring water quality data and modeled/predicted ground water quality.*
- *WNI to explain why the predictive model is not operating as expected. NWI [sic] will assess whether the approved long-term care boundary will be protective of public health and safety, if a disparity in observed and predicted ground water quality cannot be explained.*
- *WNI to explain why the predicted ACL limits are being exceeded downgradient of the Point of Compliance well in the Southwest Valley.*

In response to action items established in this meeting, WNI has developed the attached technical memorandum. The content of this memorandum addresses the action items identified above.

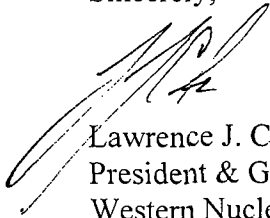
Please note that the information in this memorandum clearly demonstrates that the measured site groundwater heads, gradients, flow conditions, and groundwater quality are entirely consistent with the predictive groundwater model and that the predictive model has not been invalidated in

any way by the measured site conditions. It is WNI's position that the approved long-term care boundary will provide the requisite reasonable assurance of long-term protection.

Also, please note that NRC has been aware that groundwater quality concentrations of hazardous constituents in the Southwest Valley have exceeded the proposed ACLs for decades and these conditions were considered in the approval of the current alternate concentration limits (ACLs) established in License Condition 74. This information was presented in detail in the 1999 Groundwater Protection Plan and was part of the basis for the approved ACLs as an alternative to the requirements of 10 CFR Part 40, Appendix A including the requirements identified in Criterion 5B(1). NRC acknowledged that approved amendment was an alternative to the requirements of 10 CFR Part 40 Appendix A in NRC's 2006 Technical Evaluation Report.

WNI would like to move forward with the request for license termination and site transfer to the long-term custodian and believes that the information contained in this memorandum, in conjunction with the information provided since 1999, are sufficient to establish that all necessary requirements for groundwater have been met.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. Corte', is written over the typed name and title.

Lawrence J. Corte
President & General Manager
Western Nuclear, Inc.

cc: File
Christopher Pugsley (Thompson and Pugsley)
Harley W. Shaver
Lou Miller (Worthington Miller Environmental, LLC)