



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

April 16, 2015

MEMORANDUM TO: Michael A. Norato, Ph.D., Chief
Materials Decommissioning Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

FROM : Dominick A. Orlando, Senior Project Manager **/RA/**
Materials Decommissioning Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

SUBJECT: MEETING SUMMARY – TECHNICAL MEETING TO DISCUSS
THE DECOMMISSIONING OF THE WESTERN NUCLEAR
INCORPORATED SITE IN JEFFERY CITY, WYOMING
(Docket 040-01162)

On March 17, 2015, staff of the U.S. Nuclear Regulatory Commission (NRC) met with representatives of Western Nuclear Incorporated (WNI) at NRC headquarters in Rockville Maryland. The purpose of the meeting was to discuss the institutional control and ground water issues associated with the decommissioning of the WNI Split Rock site in Jeffery City, Wyoming. Enclosure I lists the meeting attendees. A meeting notice was posted on the NRC website on March 4, 2015.

After opening remarks by NRC and WNI, WNI provided an overview of the history and status of the land purchases and institutional controls that had been established for the Split Rock site. WNI discussed the three types of property at the Split Rock site: property that is owned in fee simple by WNI that will transfer to the U.S Department of Energy (DOE); property owned by the Bureau of Land Management (BLM) to be withdrawn from public use and transferred to DOE; and, property for which WNI purchased the subsurface estate (Claytor property) or established

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restrictive covenants or easements (McIntosh and Walker/Petersen properties) as institutional controls to prevent access to the site and ground water. The McIntosh and Walker/Peterson properties will not transfer to DOE, however, these institutional controls run with the land can be enforced by WNI and its successor licensee, for example, DOE. WNI provided copies of all land ownership documents for the site. These documents are included in Enclosure 2.

WNI also discussed the manner in which the institutional controls were enforceable by DOE. For the Claytor property, the subsurface estate (i.e., land deeper than 7 feet below the surface) will transfer to DOE, which will prevent persons from accessing ground water. DOE will own land adjacent to the Walker/Petersen property. DOE's ownership of the adjacent land, in combination with the restrictive covenant in the Walker/Peterson deed, provides DOE with greater ability to restrict access to the ground water on these properties. WNI also explained that the institutional controls extended beyond the long-term care boundary because the institutional controls were established before the final long-term care boundary was established.

WNI also stated that, in the past, the DOE had requested that the BLM withdraw the BLM property. WNI indicated that they had requested approval of the institutional controls for the site in the 2002-2003 timeframe, but did not receive a formal response from NRC. The NRC staff was unaware of the request and stated that the docket will be reviewed to attempt to locate the WNI letter.

Action items for Institutional Controls:

- NRC to contact the DOE and obtain the letter to BLM requesting withdrawal of the BLM property and any BLM response to the request
- NRC to contact the BLM and discuss their process for withdrawing the BLM property and when they should be contacted to begin the process
- NRC to review property ownership documents provided by WNI
- NRC to review ADAMS for the request from WNI to approve the institutional controls

The NRC staff also discussed ground water issues at the site, specifically concerns raised by the NRC staff that the movement of contaminant plume in the ground water at the site may not be consistent with the ground water model predictions in WNI's Alternative Concentration Limit application and WNI's request for an alternate approach to the requirements of 40 CFR appendix A.

WNI provided an overview of the modeling results for the site. Enclosure 3 includes the slides used by WNI in their presentation. The NRC and WNI staffs discussed the concerns identified by the NRC staff. The NRC staff focused on the reliability of the predictive model and the complexities of validating the modeled results. The NRC staff and WNI will evaluate whether data obtained from the compliance monitoring wells and collected from discrete sampling intervals within the monitoring wells are comparable. The available data may not accurately reflect the concentrations predicted by the model because the sampling intervals may not

accurately represent the model's predicted concentrations across the entire modeled aquifer saturated thickness.

The NRC and WNI agreed that WNI will provide additional information or re-evaluate existing data to allow the NRC staff to determine the validity of the WNI model. NRC and WNI also discussed the exceedance of the ACL values downgradient of the Point of Compliance wells in the Southwest Valley. The NRC staff stated they understood WNI's rationale for concluding that the exceedances are not a safety issue. However, the NRC staff requested that WNI address these issues by responding to the NRC's letters dated September 11, 2013 (Agencywide Document Access and Management System (ADAMS) as Accession Number ML13241A105) and January 22, 2015 (ML15006A282).

Action items for Ground Water:

- NRC staff to provide WNI with a list of documents that NRC needs to evaluate the ground water model.
- 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 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.

Enclosures:

1. Meeting Attendee List
2. Land Ownership Documents
3. WNI Slides

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DISTRIBUTION:

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NAME	DOrlando	CHolston	MMeyer	PJehle via-email	DOrlando
DATE	04/1/15	04/1/15	04/7/15	04/9/15	04/16/15

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WESTERN NUCLEAR INC. MEETING ATTENDEE LIST
MARCH 17, 2015

Nuclear Regulatory Commission

Andrew Persinko, DUWP/NMSS
Matthew Meyer, RDB/DUWP/NMSS
Dominick Orlando, MDB/DUWP/NMSS
Patricia Jehle, OGC
Raymond Kellar, RIV
Marty Posten, RIV

Western Nuclear Incorporated

Louis Miller
Harley Shaver
Toby Wright
Christopher Pugsley
Anthony Thompson (by phone)
Lawrence Corte (by phone)

In addition to the individuals listed above, listed below are the representatives of the U.S. Department of Energy that observed the meeting by phone.

Steve Hall, SN3
Mike Webb, SN3
Tim Vanick, DOE
Rich Zinkle, SN3
Cheri Barke, SN3