May 23, 2016

MEMORANDUM TO: Gregory Suber, Chief Low-Level Waste Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Christepher A. McKenney, Chief Performance Assessment Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

FROM: Don Lowman, Project Manager ***/RA/***
Low-Level Waste Branch
Division of Decommissioning, Uranium Recovery,
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

SUBJECT: APRIL 11, 2016, TRIP REPORT: NORTH ANNA POWER STATION

Background

In February 2015, the U.S. Nuclear Regulatory Commission (NRC) published the revised Branch Technical Position (BTP) on Concentration Averaging and Encapsulation. In the *Federal Register* Notice (80 FR 10165) in which the BTP was noticed, it stated, "The staff will consider whether additional guidance, such as a Regulatory Issue Summary, is warranted for distinguishing contaminated materials from radioactive trash".

Additionally, staff is in the process of updating NUREG/BR-0204, "Instructions for Completing NRC's Uniform Low-Level Radioactive Waste Manifest" to address industry concerns with reporting of H-3, C-14, Tc-99, and I-129.

Purpose

The purpose of the trip was to get a "boots on the ground" look at implementation of both the BTP and NUREG/BR-0204, specifically:

CONTACT: Don Lowman, NMSS/DUWP
(301) 415-5452

- Observe examples of outage trash and discuss how “high rad” trash is packaged.
- Observe implementation of revisions to the BTP on Concentration Averaging.
- Discuss waste stream sampling.
- Gain insight on use of scaling factors.

Station Visit

On April 11, 2016, Karen Pinkston, Christianne Ridge, and I toured the North Anna Power Station. The visit was coordinated between myself, Senior Resident Inspector Gregory Croon, and Jay Leberstien (Dominion). Resident Inspector Gwynne Eatmon escorted us while in the protected area of the station.

We met with the following station personnel:

- Bruce Evans (Radiation Protection Manager)
- Aziz Maly (Supervisor – Radiation Protection)
- Leonard Oakes (Health Physics Supervisor – Radwaste)
- Dwain Salling (Health Physicist)

The visit was well planned by Dominion and NRC personnel as entry into the station went very smoothly (badging, security, dosimetry). The visit included the following:

- Via remote cameras, station personnel walked us through how liners and high integrity containers (HICs) are filled with resin and filters. We also toured the Truck Bay where the shielded liners and HICs were filled and observed the resin transfer lines and resin sampling system.
- We toured the Auxiliary Building and outside areas of the protected area and observed waste packaged in boxes and sea land containers.
- Staff discussed implementation of the revised BTP with station personnel and how it relates to blending of resin and the alternate treatment of cartridge filters.
- Station personnel gave us a demonstration of the WMG, Inc. RADMAN software for classification and shipment of radioactive waste. The discussion included waste stream sampling, scaling factors, and documentation of results.

Takeaways

- Staff gained “hands-on” knowledge of implementation of the BTP and NUREG/BR-0204 which will enhance future work in low-level radioactive waste.
- Station personnel had a question regarding the 90 percent fill volume of containers found in the BTP. Staff requested that they document their question and we would provide an answer on the BTP webpage where other Questions and Answers reside.

Please let me know if you have any questions.

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OFC	DUWP/	DUWP/	DUWP/	DUWP/	DUWP
NAME	DLowman	TMoon	KPinkston	CRidge	DLowman
DATE	5/20/16	5/23 /16	5/20/16	5/20/16	5/23/16

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