



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

April 20, 2016

MEMORANDUM TO: Bo Pham, Acting Deputy Director  
Division of Spent Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

FROM: Kristina L. Banovac, Project Manager **/RA/**  
Renewals and Materials Branch  
Division of Spent Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: SUMMARY OF MARCH 21, 2016, MEETING WITH DOMINION TO  
DISCUSS THE UPCOMING SUBMITTAL OF THE APPLICATION FOR  
RENEWAL OF THE NORTH ANNA INDEPENDENT SPENT FUEL  
STORAGE INSTALLATION LICENSE (TAC NO. L25092)

Background

On March 21, 2016, a meeting was held in Rockville, MD, between representatives of Dominion and the U.S. Nuclear Regulatory Commission (NRC) to discuss the upcoming submittal of the application for renewal of the North Anna Independent Spent Fuel Storage Installation (ISFSI) license. The list of meeting attendees is provided in Enclosure 1.

The meeting was noticed on March 4, 2016 (ML16067A155).

Discussion

The meeting discussion followed the meeting agenda, which is provided in Enclosure 2. Dominion gave a presentation on the planned North Anna ISFSI license renewal application, which is included in Enclosure 3. Dominion's presentation covered background information on the North Anna ISFSI; NRC regulations and guidance used for preparation of the license renewal application; planned license renewal application content including the scoping evaluation, aging management review, and aging management programs; the results of the lead cask inspections of the cask bottom, protective cover, and cask top; and the timing of ongoing and planned ISFSI licensing activities. Dominion plans to submit the license renewal application in May 2016.

During and following the Dominion presentation, the NRC staff asked several questions of Dominion, to which Dominion provided the following information and clarifications:

- Dominion noted that Appendix A of the application will include the licensing or design changes that have been made since the original license issuance, including any changes made under 10 CFR 72.48.

- Dominion noted that the earthen berm near the ISFSI is not credited for radiation shielding in meeting the dose limits in 10 CFR 72.104. Therefore, it will not be discussed in the renewal application.
- Dominion is not storing (and is not currently authorized to store) high burnup fuel (HBF) under its specific ISFSI license. However, Dominion has submitted a license amendment request for approval to store HBF, in support of the joint Electric Power Research Institute and U.S. Department of Energy High Burnup Dry Storage Cask Research and Development Project. That license amendment request is currently under review by the NRC. Dominion noted that it plans to submit a supplement to the license renewal application that contains the HBF amendment information in the first quarter of 2017, after the HBF amendment review is completed. The staff asked if Dominion considered limiting the storage term of the HBF cask via a license condition (to reflect that the HBF cask would not be stored longer than an initial term and would not enter its period of extended operation) instead of submitting a renewal supplement. Dominion noted that it did not consider this option.
- Dominion clarified that there are two statements in the TN-32 topical safety analysis report that include time-limited information. However, Dominion does not consider these to be time-limited aging analyses (TLAAs), as defined in 10 CFR Part 72, and is not planning to include these as TLAAAs in the renewal application.
- Dominion is not planning to include the dose rates from the cask bottom inspection in the renewal application. The dose rates were used to support the licensee's radiation protection plan for the cask bottom inspection. Dominion noted that dose rates were lower than expected.

Dominion asked a few questions of NRC about NRC's review of the renewal application. Dominion asked about NRC's use of requests for supplemental information (RSIs) during the staff's acceptance review of the application vs. the use of requests for additional information (RAIs) during the staff's detailed technical review of the application. The staff noted that it revised its internal procedure for acceptance reviews a few years ago, with the goal of increasing efficiency of the staff's reviews of requested licensing actions. The focus of the staff's acceptance review is on whether there is sufficient information for the staff to begin its detailed technical review.

Dominion also asked about the schedule for NRC review. The staff noted that it will aim to complete its review within 12.6 months (minus the time for the applicant to respond to RSIs or RAIs), which is the staff's review metric for reviews related to spent fuel storage. This schedule assumes that the staff can complete its review and make its safety and environmental review findings with only one round of RAIs. If the NRC accepts the application for a detailed technical review, the staff would include its planned review schedule in an acceptance letter to Dominion.

Dominion asked whether NRC's timely renewal provisions were based on the date the applicant submits the application to the NRC or the date when the NRC staff accepts an application for a detailed technical review. The staff noted in the meeting that it believed it was upon applicant submittal of the renewal application, and the staff took an action item to confirm this understanding in the meeting summary. The staff is confirming here that the timely renewal provisions in 10 CFR 72.42(b) and (c) are upon submittal of the application.

In terms of NRC guidance development related to spent fuel storage renewals, the staff noted that it is currently developing a draft Managing Aging Processes in Storage (MAPS) report. The MAPS report will provide an acceptable generic approach to the identification of credible aging effects in dry storage systems and appropriate aging management activities needed to address these aging effects. Although the staff does not expect to publish the draft MAPS report for public comment until summer 2016, it expects to have a staff working version of the draft MAPS report publicly available in NRC's Agencywide Documents Access and Management System (ADAMS) within a couple months.

After Dominion and NRC representatives completed their discussion, the meeting was opened to public comments or questions for the NRC.

Erica Grey had several questions, to which NRC and Dominion provided the following information:

- NRC staff clarified that the renewal application is for the North Anna ISFSI *specific* license (SNM-2507), not the *general*-licensed ISFSI at North Anna.
- Ms. Grey asked whether Dominion used a camera mentioned by NRC staff at a previous pre-application meeting, for its lead cask inspections. Dominion provided information on the camera equipment it used and noted that it would provide this information in the renewal application. The NRC staff also noted that it will review the application to determine whether there is a valid technical basis that a particular visual inspection method or equipment has sufficient resolution to identify defects, as provided in the acceptance criteria of the AMP.
- Ms. Grey asked about dose rates going up at the ISFSI over time. Dominion noted that it was because more dry storage systems are being deployed at the ISFSI (under the general license) and not related to the August 23, 2011, seismic event. The NRC staff noted that the licensee is required to comply with the dose limits in 10 CFR 72.104, and the licensee provides an annual radiological environmental operating report to the NRC, which provides the details associated with the licensee's Radiological Environmental Monitoring Program. The NRC staff took an action item to provide Ms. Grey with Dominion's latest submittal, which is publicly available in ADAMS.
- Ms. Grey asked what causes paint to blister, as observed during the lead cask inspection of the cask bottom. Dominion noted that paint can blister and degrade over time by exposure to moisture and elements in the environment.
- Ms. Grey asked whether appropriate casks were chosen for the lead cask inspection and would be chosen for the future aging management inspections in the period of extended operation. The NRC staff noted that it will review the renewal application to determine whether there is justification for the criteria for selection of particular systems and the number of systems for inspection (based on parameters that may contribute to the operable aging mechanisms and effects), including the extent of the inspection for each system.
- Ms. Grey asked how Dominion will track corrosion or aging effects during the period of extended operation. The NRC staff noted that it will review the renewal application to determine how information from inspections or monitoring will be trended, to provide for an

evaluation of the extent of the effects of aging and the need for timely corrective or mitigative actions, and an evaluation regarding the rate of degradation in order to ensure that the timing of the next scheduled inspection will occur before a loss of intended function.

- Ms. Grey asked how often Dominion will inspect the cask bottoms in its planned AMPs. In Dominion's presentation, it noted in addition to its current monitoring and inspection activities (outlined in Dominion's presentation) and any opportunistic inspections, it will plan to inspect the cask bottom every 20 years. The NRC staff noted that it will review the proposed AMPs in the renewal application, including the proposed inspection frequency, to ensure that the proposed intervals for inspection or monitoring will ensure that intended functions will be maintained until the next scheduled inspection.
- Ms. Grey commented that ISFSI pads should be designed with the consideration of accessibility of the casks for inspection.

David Martin also asked about the resolution of the cameras used by Dominion in the lead cask inspection. The NRC staff repeated its previous response that, as part of its review of the renewal application, it will review whether the equipment or visual inspection method has sufficient resolution to identify defects, as provided in the acceptance criteria of the AMP.

### **Action Items/Next Steps**

The NRC staff is confirming in this meeting summary that NRC's timely renewal provisions in 10 CFR 72.42(b) and (c) are based on the date the applicant submits the renewal application to the NRC.

The NRC staff provided the most recent annual radiological environmental operating report for the North Anna ISFSI (ML15105A241) to Ms. Grey on April 12, 2016.

Dominion plans to submit the North Anna ISFSI license renewal application in May 2016.

Docket No. 72-16  
TAC No. L25092

### **Enclosures:**

1. Meeting Attendees
2. Agenda
3. Handout – Dominion presentation on North Anna Site-Specific ISFSI License Renewal (SNM-2507)

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**ADAMS Package No.: ML16112A150 ADAMS Accession No.: ML16112A153**

**Enclosure 3: ML16112A155**

<b>OFC</b>	NMSS/DSFM	NMSS/DSFM	NMSS/DSFM
<b>NAME</b>	KBanovac	SFiguroa for WWheatley	DDunn for ACsontos
<b>DATE</b>	4 / 12 / 16	4 / 20 / 16	4 / 20 / 16

## MEETING ATTENDEES

Public Meeting with Dominion to discuss the upcoming submittal of the application for renewal  
of the North Anna Independent Spent Fuel Storage Installation license  
March 21, 2016, 1:00 – 3:00 p.m.

Kristina Banovac	NRC/NMSS/DSFM
Carlyn Greene (via teleconference)	UxC
Dennis Williford (via teleconference)	Areva
Tae Ahn (via teleconference)	NRC/NMSS/DSFM
Jean Trefethen (via teleconference)	NRC/NMSS/FCSE
Gina Davis	NRC/NMSS/DSFM
Paul Aitken	Dominion
Chip Combs	Dominion
Brian Wakeman	Dominion
James Williams	Dominion
Richard Ridder	Dominion
Tony Banks	Dominion
Tom Szymanski	Dominion
David Tarantino	NRC/NMSS/DSFM
Ricardo Torres	NRC/NMSS/DSFM
Steve Ruffin	NRC/NMSS/DSFM
Gary Stevens	Structural Integrity Associates, Inc.
Don Lowman	NRC/NMSS/DSFM
John Wise	NRC/NMSS/DSFM
Marlone Davis	NRC/NMSS/DSFM
Mark Lombard	NRC/NMSS/DSFM
Gwynne Eatmon (via teleconference)	NRC/Region II
Darrell Dunn (via teleconference)	NRC/NMSS/DSFM
Aparna Alleshwaram (via teleconference)	Structural Integrity Associates, Inc.
David Martin (via teleconference)	Public
Erica Grey (via teleconference)	Public
Al Csontos	NRC/NMSS/DSFM

## MEETING AGENDA

Meeting with Dominion

March 21, 2016

1:00 – 3:00 p.m. (Eastern Daylight Time)

One White Flint North Building, O-16B4

**Purpose:** Dominion to discuss the upcoming submittal of the application for renewal of the North Anna Independent Spent Fuel Storage Installation license.

**Agenda:**

- Welcome, introductions, and meeting objectives
- Dominion presentation and discussion
- Public questions or comments
- Wrap-up and closing remarks
- Meeting adjourned

HANDOUTS