



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

August 11, 2014

LICENSEE: Dominion Nuclear
Virginia Electric and Power Company

FACILITIES: Millstone Power Station, Unit 2
Surry Power Station, Unit Nos. 1 and 2

SUBJECT: SUMMARY OF THE JUNE 25, 2014, CATEGORY 1 PUBLIC MEETING WITH DOMINION NUCLEAR AND VIRGINIA ELECTRIC AND POWER COMPANY TO DISCUSS SEISMIC HAZARD REEVALUATIONS ASSOCIATED WITH IMPLEMENTATION OF JAPAN LESSONS-LEARNED NEAR-TERM TASK FORCE RECOMMENDATION 2.1.

On June 25, 2014, the U.S. Nuclear Regulatory Commission (NRC or the staff) held a Category 1 public meeting¹ with Dominion Nuclear (the licensee) for Millstone Power Station (Millstone), Unit 2 and Virginia Electric and Power Company (the licensee, Dominion) for Surry Power Station (Surry), Unit Nos. 1 and 2. The purpose of this meeting was to discuss issues resulting from the staff's screening and prioritization of Surry related to Enclosure 1, *Recommendation 2.1: Seismic* of the March 12, 2012, NRC request for information per Title 10 to the *Code of Federal Regulations*, Part 50, Section 50.54(f) letter² (hereafter referred to as the 50.54(f) letter). By letter dated May 9, 2014,³ the NRC staff categorized Surry, Units 1 and 2, as a "conditional screen in", prioritization group 3 plant with a risk evaluation due by December 31, 2020 based on the staff's screening review. By memo dated May 21, 2014, the NRC staff documented their preliminary Ground Motion Response Spectra (GMRS) curve in comparison to all licensee GMRS curves along with the plant's Safe Shutdown Earthquake (SSE) and Individual Plant Examination of External Events (IPEEE) High Confidence Low Probability of Failure (HCLPF) Spectra, also known as the IHS (IPEEE HCLPF Spectra). The public meeting supported an information exchange and understanding of engineering differences to achieve subsequent technical resolution.

To facilitate the discussion, the NRC staff and Dominion representatives presented⁴ the engineering details on the modeling inputs used to develop GMRS curves for Surry. The meeting highlights included:

- Discussion on using co-located independent spent fuel storage installation (ISFSI) soil velocity measurements versus correlations used based on in-situ examination of materials from foundation boring samples
- Minor differences in damping/kappa

¹ The original meeting notice is available via the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML14168A027.

² The 50.54(f) letter and Enclosure 1 are available under ADAMS Accession Nos. ML12053A340 and ML12056A047.

³ The May 9, 2014 letter is available under ADAMS Accession No. ML14111A147.

⁴ The NRC and Dominion slides can be found under ADAMS Accession Nos. ML14175B500 and ML14176A092.

In summary, the NRC staff stated that the primary differences between the NRC staff and licensee GMRS curves appear to result from:

- GMRS modeling differences are primarily influenced by the first 500 ft. of the soil profile
- Differences in velocity profiles


The NRC staff and Dominion also discussed the IPEEE adequacy used for seismic screening of Millstone, Unit 2. The IPEEE discussion included the evaluation of the following components:

- Battery Racks DB1/DB2
- Chilled Water Surge Tank
- Valve 2-CHW-11

Finally, the NRC stated that a follow up request for additional information may be issued to document the licensee's technical basis and background information as well as any other clarifications associated with the information presented at the meeting.

No regulatory decisions or commitments were made during the meeting. The public was invited to observe the meeting and was given several opportunities to communicate with the NRC during the public meeting and before adjourning. The NRC staff received no public comments and no meeting feedback forms.

Please direct any inquiries to me at 301-415-2856, or Michael.Balazik@nrc.gov.



Michael Balazik, Project Manager
Hazards Management Branch
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation

Docket Nos. 50-336, 50-280,
and 50-281

Enclosure:
List of Attendees

cc w/encl: Distribution via Listserv

List of Attendees
U.S. Nuclear Regulatory Commission
Public Meeting with Dominion Nuclear
Concerning Seismic Hazard Reevaluation Submittals
Japan Lessons-Learned Near-Term Task Force Recommendation 2.1: Seismic
June 25, 2014

Name	Organization	Name	Organization
Jon Ake	NRC/RES/DE	Wanda Craft	Dominion
Cliff Munson	NRC/NRO/DSEA	John Anderson	AEP
Diane Jackson	NRC/NRO/DSEA	John Richards	EPRI
Nicholas DiFrancesco	NRC/NRR/JLD	Barry Graber	Dominion
Vladimir Graizer	NRC/NRO/DSEA	Doug Lawrence	Dominion
Michael Balazik	NRC/NRR/JLD	Gary Miller	Dominion
Brittain Hill	NRC/NRO/DSEA	Justin Huber	TVA
Juan Uribe	NRC/NRR/JLD	Daniel Vasquez	Dominion
		David Ma	Argonne National Lab
Donnie Harrison	NRC/NRO/DSRA	Walt Silva	Pacific Engineering
Philip McKenna	NRC/RII/SRI Surry	Nick Gregor	Bechtel
Jared Nadel	NRC/RII/RI Surry	James Petrosky	Dominion
Thomas John	Dominion	David MacNeill	Dominion
Roger Gish	TVA	Ronald Wittschen	Southern Nuclear Co.
Andrew Mauer	NEI	Robin McGuire	Lettis Consultants International
Malcolm Hargraves	Dominion	Paul Guill	Duke Energy
Divakar Bhargava	Dominion	Brenda Kovarik,	AEP
Marc Hotchkiss	Dominion	(continues to next page)	

Abbreviations:

AEP - American Electric Power
 DE - Division of Engineering
 DSEA - Division of Site Safety and Environmental Analysis
 DSRA - Division of Safety Systems & Risk Assessment
 EPRI – Electric Power Research Institute
 JLD - Japan Lessons-Learned Division
 NEI - Nuclear Energy Institute
 NRO - Office of New Reactors
 NRR - Office of Nuclear Reactor Regulation
 RES - Office of Nuclear Regulatory Research
 TVA - Tennessee Valley Authority

Enclosure

[illegible]

In summary, the NRC staff stated that the primary differences between the NRC staff and licensee GMRS curves appear to result from:

- GMRS modeling differences are primarily influenced by the first 500 ft. of the soil profile
- Differences in shear-wave velocity profiles

The NRC staff and Dominion also discussed the IPEEE adequacy used for seismic screening of Millstone, Unit 2. The IPEEE discussion included the evaluation of the following components:

- Battery Racks DB1/DB2
- Chilled Water Surge Tank
- Valve 2-CHW-11

Finally, the NRC stated that a follow up request for additional information may be issued to document the licensee's technical basis and background information as well as any other clarifications associated with the information presented at the meeting.

No regulatory decisions or commitments were made during the meeting. The public was invited to observe the meeting and was given several opportunities to communicate with the NRC during the public meeting and before adjourning. The NRC staff received no public comments and no meeting feedback forms.

Please direct any inquiries to me at 301-415-2856, or Michael.Balazik@nrc.gov.

/RA/

Michael Balazik, Project Manager
Hazards Management Branch
Japan Lessons-Learned Division
Office of Nuclear Reactor Regulation

Docket Nos. 50-336, 50-280,
and 50-281

Enclosure:

List of Attendees

cc w/encl: Distribution via Listserv

DISTRIBUTION:

PUBLIC

JLD R/F

DJackson, NRO

RKaras, NRO

CMuson, NRO

RidsNroOd

RidsOgcMailCenter

RidsAcrsAcnw_MailCTR

RidsNrrPMMillstone

BBeasley, NRR

DiFrancesco, NRR

KManoly, NRR

SWhaley, NRR

YLi, NRR

JAke, RES

MJardaneh, NRO

RidsNrrLASLent

RidsNrrPMSurry

RidsRgn1MailCenter

RidsRgn2MailCenter

RidsNrrDorl

RidsOpaMail

RidsOgcMailCenter

RidsNroDsea

RidsNrrDe

RPascarelli, NRR

ADAMS Accession No.: ML14210A021

OFFICE	NRR/JLD/JHMB/PM	NRR/JLD/LA	NRR/JLD/JHMB/BC	NRR/JLD/JHMB/PM
NAME	MBalazik	SLent	SWhaley	MBalazik
DATE	07/28/14	07/29/14	07/30/14	08/11/14

OFFICIAL RECORD COPY