

PMNorthAnna3COLPEmails Resource

From: Patel, Chandu
Sent: Monday, August 15, 2011 4:35 PM
To: 'na3raidommailbox@dom.com'
Cc: Weisman, Robert; NorthAnnaRAIsPEm Resource; Galvin, Dennis; Graizer, Vladimir
Subject: RAI Letter No. 81, RAI 5942 and 5959, Section 3.7.1, North Anna 3 COLA
Attachments: RAI Letter 81 RAI 5942 and 5959.doc

By letter dated November 26, 2007, Dominion Virginia Power (Dominion) submitted a Combined License Application for North Anna, Unit 3, pursuant to Title 10 of the *Code of Regulations*, Part 52. The U.S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this COLA.

The NRC staff has identified that additional information is needed to continue portions of the review and a Request for Additional Information (RAI), is enclosed. To support the review schedule, Dominion is requested to respond within 30 days of the date of this request. If the RAI response involves changes to the application documentation, Dominion is requested to include the associated revised documentation with the response.

Sincerely,
Chandu Patel
Lead Project Manager for NA3 COLA

Hearing Identifier: NorthAnna3_Public_EX
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Subject: RAI Letter No. 81, RAI 5942 and 5959, Section 3.7.1, North Anna 3 COLA
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From: Patel, Chandu

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Tracking Status: None

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RAI Letter No. 81
8/15/2011
North Anna, Unit 3
Dominion
Docket No. 52-017
SRP Section: 03.07.01 - Seismic Design Parameters
Application Section: SRP 3.7.1

QUESTIONS for Geosciences and Geotechnical Engineering Branch 2 (RGS2)

Request for Additional Information No. 5942

03.07.01-5

FSAR Section 2.5.4.7.1 describes creation of the eight S-wave velocity profiles for different structures used in Section 3.7.1 and Appendix 300. The FSAR states that those profiles are the result of a combination of different downhole velocity measurements. Except for the R/B velocity profile, the FSAR does not appear to explain how the profiles were “combined” (see FSAR section 2.5.4.7.1, pages 2-298 – 2.300). Please provide a description discussing how each of those profiles were developed.

Also, please describe the process for developing the profiles along the East side of the plant’s footprint (e.g., the ESWP Tunnel and East PS/B) since there do not appear to be any P-S suspension logging measurements in this area. Finally, FSAR Section 2.5.4.7.1 (page 2-298) states that S-wave velocity values are averaged over 10-ft intervals (same for at least some of the other FIRS profiles) for the West PS/B and West PSFSV FIRS profiles. Since this approach is not standard practice for averaging S-wave velocities and since averaging over 10-ft interval will smooth impedance contrast gradients, please provide justification for the averaging approach.

Request for Additional Information No. 5959

03.07.01-6

FSAR Section (Appendix) 300.1.3 states that multiple performance-based surface response spectra (PBSRS) were calculated as 5% damped response spectra at finished grade. Figures 300-233 and 300-234 show horizontal and vertical PBSRS for the eight different structures. Please provide a description discussing how each of those profiles were developed.

Also, please describe the process for developing the profiles along the East side of the plant’s footprints (e.g., ESWP Tunnel and East PS/B) since there are no P-S suspension logging measurements in this area.