

## PMNorthAnna3COLPEmails Resource

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**From:** Patel, Chandu  
**Sent:** Monday, June 13, 2011 4:12 PM  
**To:** 'na3raidommailbox@dom.com'  
**Cc:** Weisman, Robert; NorthAnna3COL Resource; Ma, John; Thomas, Vaughn; Galvin, Dennis  
**Subject:** RAI Letter No. 75, RAI 5605, Section 3.8.5, North Anna 3 COLA  
**Attachments:** RAI Letter 75 RAI 5605.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  
**Email Number:** 976

**Mail Envelope Properties** (8C658E9029C91D4D90C6960EF59FC0D630EA9227B2)

**Subject:** RAI Letter No. 75, RAI 5605, Section 3.8.5, North Anna 3 COLA  
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**Received Date:** 6/13/2011 4:12:12 PM  
**From:** Patel, Chandu

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RAI Letter No. 75  
6/13/2011  
North Anna, Unit 3  
Dominion  
Docket No. 52-017  
SRP Section: 03.08.05 - Foundations  
Application Section: 3.8.5

QUESTIONS for Structural Engineering Branch 1 (AP1000/EPR Projects) (SEB1)

Request for Additional Information No. 5605 Revision 3

03.08.05-1

NAPS COL 3.8(24), Subsection 3.8.5.1.3.1, "ESWPT," the first paragraph (page 3-119), states "The basemat is a 2-ft. thick concrete slab in Segment 1 as shown in Figure 3.8-203, and is 9'-11" thick in Segment 2 as shown in Figure 3.8-205, with top and bottom reinforcement in each direction arranged in a rectangular grid." Provide rebar sizes and spacing for the above figures and as well as for other figures related to the UHSRS and PSFSVs.

03.08.05-2

NAPS COL 3.8(25), Table 3.8-202, "Summary of Bearing Pressures and Ratios of Allowable Bearing Capacity to Bearing Pressure," lists the allowable bearing capacity for the safety-related buildings. Describe how the allowable bearing capacities for static and seismic cases in Table 3.8-202 (page 3-126) were obtained.

03.08.05-3

NAPS COL 3.8(25), Table 3.8-203, "Load Combinations and Factor of Safety for Buildings and Structures," (page 3-127) the fourth column lists factor of safety against sliding for the safety-related buildings. The factor of safety against sliding for the PSFSVs is 1.1 and the footnote indicates that it's "Conservative since reinforcement dowels into underlying are used to prevent sliding of the PSFSV." Clarify whether the value of 1.1 was calculated with or without the reinforcement dowels.

03.08.05-4

NAPS DEP 3.7(1), Figure 3.8.5-13R, "Typical Reinforcement in PS/B Basemats," (page 3-129) shows the detail of the reinforcement in the PS/B basemats. The shear reinforcement (stirrup) is labeled as "SHEAR #9@24" + @24" in Figure 3.8.5-13R, BASEMAT SECTION N-S. Explain the meaning of SHEAR #9@24" + @24.

03.08.05-5

NAPS DEP 3.7(1), Figure 3.8.5-13R, "Typical Reinforcement in PS/B Basemats," (page 3-129) shows the detail of the reinforcement in the PS/B basemats. Provide spacing requirements for #11 rebar for shear transfer from the basemat into the fill concrete.