

## PMNorthAnna3COLPEmails Resource

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**From:** Patel, Chandu  
**Sent:** Tuesday, June 03, 2014 2:26 PM  
**To:** 'na3raidommailbox@dom.com' (na3raidommailbox@dom.com)  
**Cc:** PMNorthAnna3COLPEmails Resource; Weisman, Robert; Carpentier, Marcia; Buckberg, Perry; Nolan, Ryan  
**Subject:** Draft RAI 7533, FSAR Section 3.5.1.4, North Anna COLA (52-017)  
**Attachments:** Draft RAI\_7533.docx

Hi,

Please see attached Draft RAI 7533 for FSAR Section 3.5.1.4 of North Anna 3 Combined License Application. Please let me know if you need any clarification before COB June 6, 2014. Otherwise it will be issued as final after that date.

Sincerely,  
Chandu Patel

**Hearing Identifier:** NorthAnna3\_Public\_EX  
**Email Number:** 1170

**Mail Envelope Properties** (8C658E9029C91D4D90C6960EF59FC0D601325B240FB8)

**Subject:** Draft RAI 7533, FSAR Section 3.5.1.4, North Anna COLA (52-017)  
**Sent Date:** 6/3/2014 2:26:17 PM  
**Received Date:** 6/3/2014 2:26:18 PM  
**From:** Patel, Chandu

**Created By:** Chandu.Patel@nrc.gov

**Recipients:**

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"Weisman, Robert" <Robert.Weisman@nrc.gov>  
Tracking Status: None  
"Carpentier, Marcia" <Marcia.Carpentier@nrc.gov>  
Tracking Status: None  
"Buckberg, Perry" <Perry.Buckberg@nrc.gov>  
Tracking Status: None  
"Nolan, Ryan" <Ryan.Nolan@nrc.gov>  
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MESSAGE	296	6/3/2014 2:26:18 PM
Draft RAI_7533.docx	27981	

**Options**

**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

## Request for Additional Information

Issue Date:

Application Title: North Anna, Unit 3 - Docket Number 52-017

Operating Company: Dominion

Docket No. 52-017

Review Section: 03.05.01.04 - Missiles Generated by Tornadoes and Extreme Winds

Application Section: 3.5.1.4; 19A

### QUESTIONS

03.05.01.04-XX

In response to RAI 7471, Question 03.05.01.04-01, the applicant provided a table showing the ESBWR standard-plant tornado and hurricane missile spectra and associated velocities compared to North Anna 3 site-specific values. This table indicates that site-specific wind-borne missiles are indeed bounded by the referenced DCD for Seismic Category I structures. However, the RAI response does not discuss other ESBWR standard-plant structures, such as the structures housing RTNSS equipment, which, as non-Seismic Category I structures, are designed for hurricane missiles but not tornado missiles.

At the time the reference ESBWR DCD was reviewed, hurricane missile velocities were calculated by using tornado missile methodologies described in SRP 3.5.1.4 Revision 2. Indeed, the table provided in the applicant's response to RAI 7471, Question 03.05.01.04-01, shows that, for the ESBWR standard plant, an automobile subject to hurricane winds can become a missile with a velocity of 68 mph. However, in October 2011, RG 1.221 was issued with a completely new methodology for calculating hurricane missiles. Using RG 1.221, the North Anna 3 site-specific automobile missile generated from a hurricane can have a velocity of 74 mph, which is not bounded by the DCD value of 68 mph.

It is unclear to the staff whether North Anna 3 is taking a departure from the DCD since the site-specific automobile missile, generated by hurricane winds, is not bounded by the DCD. The staff requests the applicant to provide additional detail in the FSAR to demonstrate that RTNSS structures are designed to withstand site-specific design-basis hurricane missile impacts.