

**Enclosure 9**

**Bechtel Calculation 24830-ENV-008,  
Tornado Frequency Analysis In Response to NRC RAI  
[Non-Proprietary Version]**

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## Calculation Cover Sheet

Project: North Anna ESP		Job No.: 24830		Calc. No.: 24830-ENV-008		Sheet: 1	
Subject: Tornado Frequency Analysis in Response to NRC RAI				Discipline: Mechanical/Environmental			
Calculation Status Designation		<input type="checkbox"/> Preliminary		<input checked="" type="checkbox"/> Confirmed		<input type="checkbox"/> Superseded	
						<input type="checkbox"/> Voided	
Computer Program/Type		SCP <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Program No.		Version/Release No.	

This calculation addresses RAI Letter No. 1 (RAI 2.3.1-1(g)) and RAI Letter No. 7 (RAI 2.3.1-6).

**THIS CALCULATION HAS BEEN REVIEWED BY BECHTEL POWER CORPORATION AND ANY PROPRIETARY INFORMATION HAS BEEN REMOVED. WHEREVER PROPRIETARY INFORMATION HAS BEEN REMOVED, BRACKETS HAVE BEEN INSERTED CONTAINING THE STATEMENT "PROPRIETARY INFORMATION DELETED"**

0	Initial Issue						
No.	Reason for Revision	Total No. of Sheets	Last Sheet No.	By	Checked	Approved/ Accepted	Date
Record of Revisions							

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## Calculation Sheet

Project: North Anna ESP

Job Number: 24830

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Calc. No.: 24830-ENV-008

By: J. M. Jarvis

Date: 6/11/2004

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By: J. M. Jarvis

Date: 6/11/2004

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### LIST OF FIGURES

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Date: 6/11/2004

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### 1. PURPOSE

A tornado frequency analysis is required by the NRC [Ref. 1] (see Attachments 1 and 2, Letter No. 1 RAI 2.3.1-1, Question (g) and Letter No. 7 RAI 2.3.1-6) for the proposed North Anna Units 3 and 4 in the Early Site Permit (ESP) application. The main purpose of this analysis is to estimate the tornado strike probability for the proposed Units 3 and 4, and to define the Design Basis Tornado (DBT) for the North Anna ESP site, based on a 2-degree square area, if the estimated tornado frequency is greater than the NRC-defined  $10^{-7}$  per year threshold [Ref. 2].

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### 2. INPUT DATA

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### 3. METHODOLOGY

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### 4. ASSUMPTIONS

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### 5. CALCULATIONS

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### 6. RESULTS AND CONCLUSIONS

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### 7. REFERENCES

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