

**J. A. "Buzz" Miller**  
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**SEP 11 2008**

Docket Nos.: 52-025  
52-026

AR-08-1399

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555-0001

Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Units 3 and 4 Combined License Application  
Response to Request for Additional Information Letter No. 001

Ladies and Gentlemen:

By letter dated March 28, 2008, Southern Nuclear Operating Company (SNC) submitted an application for combined licenses (COLs) for proposed Vogtle Electric Generating Plant (VEGP) Units 3 and 4 to the U.S. Nuclear Regulatory Commission (NRC) for two Westinghouse AP1000 reactor plants, in accordance with 10 CFR Part 52. During the NRC's detailed review of this application, the NRC identified a need for additional meteorological information required to complete their review of the COL application's Final Safety Analysis Report (FSAR) Subsection 2.3.4, "Short-Term Diffusion Estimates." By letter dated August 19, 2008, the NRC provided SNC with Request for Additional Information (RAI) Letter No. 001 concerning this meteorological information need. This RAI letter contains one RAI question numbered 02.03.04-1. The enclosure to this letter provides the SNC response to RAI No. 02.03.04-1.

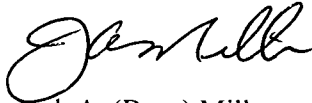
If you have any questions regarding this letter, please contact Mr. Wes Sparkman at (205) 992-5061.

D079  
NRD

Mr. J. A. (Buzz) Miller states he is a Senior Vice President of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY



Joseph A. (Buzz) Miller

Sworn to and subscribed before me this 11 day of September, 2008

Notary Public: Hector H. Bui

My commission expires: 05/06/09

JAM/BJS/dmw

Enclosure: Response to NRC RAI Letter No. 001 on the VEGP Units 3 & 4 COL Application  
Involving Meteorology

cc: Southern Nuclear Operating Company

Mr. J. H. Miller, III, President and CEO (w/o enclosure)  
Mr. J. T. Gasser, Executive Vice President, Nuclear Operations (w/o enclosure)  
Mr. T. E. Tynan, Vice President - Vogtle (w/o enclosure)  
Mr. D. M. Lloyd, Vogtle Deployment Director  
Mr. C. R. Pierce, Vogtle Development Licensing Manager  
Mr. M. J. Ajluni, Nuclear Licensing Manager  
Mr. W. A. Sparkman, COL Project Engineer  
Document Services RTYPE: AR01  
File AR.01.02.06

Nuclear Regulatory Commission

Mr. L. A. Reyes, Region II Administrator (w/o enclosure)  
Mr. M. R. Johnson, Director of Office of New Reactors (w/o enclosure)  
Mr. D. B. Matthews, Director of Division of New Reactor Licensing (w/o enclosure)  
Ms. S. M. Coffin, AP1000 Manager of New Reactors (w/o enclosure)  
Mr. C. J. Araguas, Project Manager of New Reactors  
Mr. S. C. Flanders, Director of Site and Environmental Reviews  
Mr. W.F. Burton, Chief – Environmental Technical Support  
Mr. M. D. Notich, Environmental Project Manager  
Mr. G. J. McCoy, Senior Resident Inspector of VEGP

Georgia Power Company

Mr. O. C. Harper, Vice President, Resource Planning and Nuclear Development (w/o enclosure)

Oglethorpe Power Corporation

Mr. M. W. Price, Chief Operating Officer (w/o enclosure)

Municipal Electric Authority of Georgia

Mr. C. B. Manning, Jr., Senior Vice President, Participant and Corporate Affairs (w/o enclosure)

Dalton Utilities

Mr. D. Cope, President and Chief Executive Officer (w/o enclosure)

Bechtel Power Corporation

Mr. J. S. Prebula, Project Engineer (w/o enclosure)  
Mr. R. W. Prunty, Licensing Engineer

Tetra Tech NUS, Inc.

Ms. K. K. Patterson, Project Manager

Shaw Stone & Webster, Inc.

Mr. K. B. Allison, Project Manager (w/o enclosure)  
Mr. J. M. Oddo, Licensing Manager

Westinghouse Electric Company, LLC

Mr. N. C. Boyter, Vice President, AP1000 Vogtle 3 & 4 Project  
Mr. J. L. Whiteman, Principal Engineer, Licensing & Customer Interface

**Southern Nuclear Operating Company**

**AR-08-1399**

**Enclosure**

**Response to NRC RAI Letter No. 001  
on the VEGP Units 3 & 4 COL Application  
Involving Meteorology**

**FSAR Subsection 2.3.4, Short-Term Diffusion Estimates**

**eRAI Tracking No. 541**

**NRC RAI Number 02.03.04-1:**

Please provide a table with site-specific azimuthal angles for the release points identified in FSAR Table 2.0-202 to the HVAC intake and the control room door. This information is necessary for the staff to conduct a confirmatory analysis of the ARCON96  $\chi/Q$  estimates.

**SNC Response:**

The following table shows direction to source for each source-to-receptor scenario considered in the ARCON96 modeling run. Receptor and source numbers are as shown in the AP1000 Design Control Document (DCD) Figure 15A-1, as revised in the Westinghouse AP1000 document APP-GW-GLR-134, Revision 4. As described in COL application FSAR Subsection 1.2.2, "plant north" corresponds to true north for VEGP Units 3 and 4. In addition, comparison of AP1000 DCD Figure 1.2-2 with COL application FSAR Figure 1.1-202 shows that the AP1000 DCD "plant north" is the same as "plant north" for VEGP Units 3 and 4.

Receptor	Receptor Number	Source	Source Number	Direction to Source (degrees)
HVAC Intake	1	Plant Vent	1	195
	1	PCS Air Diffuser	2	225
	1	Containment Shell <sup>+</sup>	8	219
	1	PORV & Safety Valves	6	277
	1	Condenser Air Removal Stack	7	010
	1	Steam Vent	5	269
	1	Fuel Building Blowout Panel	3	178
	1	Fuel Building Truck Bay Door	4	168
Control Room Door	2	Plant Vent	1	197
	2	PCS Air Diffuser	2	208
	2	Containment Shell <sup>+</sup>	8	203
	2	PORV & Safety Valves	6	213
	2	Condenser Air Removal Stack	7	250
	2	Steam Vent	5	212
	2	Fuel Building Blowout Panel	3	189
	2	Fuel Building Truck Bay Door	4	184

+ Area source (as indicated in footnote 4 of AP1000 DCD Tables 2-1 and 15A-6)

No COL application revision is required as a result of this RAI response.