L. M. Stinson (Mike)
Vice President
Fleet Operations Support

**Southern Nuclear Operating Company, Inc.**40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201

Tel 205.992.5181 Fax 205.992.0341



July 24, 2008

Docket Nos.: 50-348

50-364

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D. C. 20555-0001

NL-08-1124

Joseph M. Farley Nuclear Plant - Units 1 and 2
License Amendment Request to Technical Specification 3.9.3,
Containment Penetrations, Personnel Air Locks Doors Open During
Fuel Movement - Response to Request for Additional Information

#### Ladies and Gentlemen:

In letter dated April 27, 2007, Southern Nuclear Operating Company (SNC) requested, in accordance with the provisions of 10 CFR 50.90, a change to the Joseph M. Farley Nuclear Plant Unit 1 and Unit 2 Technical Specifications (TS).

This licensing amendment request (LAR) is for Limiting Condition for Operation (LCO) 3.9.3, "Containment Penetrations," to allow the containment personnel air locks that provide direct access from the containment atmosphere to the auxiliary building to be open during refueling activities if appropriate administrative controls are established. The proposed changes are based on NRC-approved Technical Specifications Task Force (TSTF) Traveler TSTF-68, Revision 2. SNC requested approval of the proposed license to support the planned Unit 2 Refueling Outage 19 currently scheduled to start in October 2008.

On July 18, 2008, a telecom was held between the NRC and SNC regarding the proposed TS change. The SNC response to the request for additional information is provided in the Enclosure.

(Affirmation and signature are provided on the following page.)

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Mr. L. M. Stinson states he is a 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.

This letter contains no NRC commitments. If you have any questions, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

L. M. Stinson

Vice President Fleet Operations Support

Sworn to and subscribed before me this 24th day of July , 2008

Notary Public

My commission expires: 5 July 2010

LMS/BDM/daj

Enclosure: Response to Request for Additional Information

cc: Southern Nuclear Operating Company

Mr. J. T. Gasser, Executive Vice President

Mr. J. R. Johnson, Vice President - Farley

Mr. D. H. Jones, Vice President - Engineering

RTYPE: CFA04.054; LC# 14803

U. S. Nuclear Regulatory Commission

Mr. L. A. Reyes, Regional Administrator

Mr. R. A. Jervey, NRR Project Manager – Farley

Mr. E. L. Crowe, Senior Resident Inspector – Farley

Alabama Department of Public Health

Dr. D. E. Williamson, State Health Officer

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# **Enclosure**

Response to Request for Additional Information

#### **Enclosure**

### Response to Request for Additional Information

## **NRC Question**

1. Table 2 of Enclosure 1 to the April 27, 2007 license amendment request (LAR) concerning the status of containment penetrations and personnel air lock doors during fuel movement provides atmospheric dispersion factors ( $\chi$ /Q values) for assumed releases from the equipment hatch and personnel air locks to the control room, site boundary and low population zone.

Other than the 0-30 second  $\chi/Q$  value for postulated releases from the personnel air locks to the control room, the  $\chi/Q$  values appear to be those previously approved in Farley Unit 1 and Unit 2 Amendment Numbers 165 and 157, (ADAMS Accession Number ML042820368) and Amendment Numbers 166 and 158 (ADAMS Accession Number ML042780424), all dated September 30, 2004. However, the value in Table 2 is presented for the site boundary whereas the amendments present  $\chi/Q$  values for the exclusion area boundary (EAB). Please confirm that the  $\chi/Q$  values presented in Table 2 also apply to the EAB. In addition, please confirm that the only new  $\chi/Q$  value proposed in this LAR is the 0-30 second  $\chi/Q$  value for postulated releases from the personnel air locks to the control room and that the other previously approved  $\chi/Q$  values apply to the dose assessment for the current LAR.

## **SNC Response**

The EAB (Exclusion Area Boundary) and the Site Boundary are equivalent, therefore the X/Q values presented in Table 2 for the Site Boundary also apply to the EAB and the only change was the 0-30 second X/Q value for the personnel air locks. The 0-30 second X/Q value uses the 0 - two hour Unit 2 reactor-to-TSC value and the timing is based on the isolation time for control room normal intake and not any change in post-accident or meteorological conditions.

The 30 second - two hour X/Q Control Room, Site Boundary, and Low Population Zone values in Table 2 for the Personnel Air Locks in the SNC April 27, 2007 letter are the same as the 0 - two hour Control Room, EAB (i.e., Site Boundary), and Low Population Zone values in Table 2 of the Farley Unit 1 and Unit 2 NRC Amendment Numbers 166 and 158 (ADAMS Accession Number ML042780424), dated September 30, 2004. The 0 - two hour X/Q Site Boundary and Low Population Zone values in Table 2 for the Personnel Air Locks in the SNC April 27, 2007 letter are the same as the 0 - two hour EAB (i.e., Site Boundary) and Low Population Zone values in Table 2 of the Farley Unit 1 and Unit 2 NRC Amendment Numbers 165 and 157, (ADAMS Accession Number ML042820368), dated September 30, 2004.

Therefore, the other previously approved X/Q values apply to the dose assessment for the current LAR.

#### **Enclosure**

### Response to Request for Additional Information

#### **NRC Question**

2. Section 3.1.1.2 of Enclosure 1 states that the release from the containment personnel air locks into the auxiliary building is picked up by the auxiliary building rad-side ventilation system and vented out the auxiliary building through the plant vent stack. Item 1 on page 8 of Enclosure 1 states that the normal control room air intake is closer to the release pathways as compared to the control room emergency air intakes, but bounded by the Unit 2 to Technical Support Center (TSC) intake location. When the control room is isolated, the control room normal air intake and the TSC intake are closed.

Atmospheric dispersion factors were provided for assumed releases from the Unit 1 and Unit 2 vents, equipment hatches, and reactor building walls to the TSC intake and to the emergency air intakes, but not to the control room normal intake. The licensee stated that the normal control room air intake is closer to the release pathways as compared to the control room emergency air intakes, but bounded by the Unit 2 to TSC intake location. Thus, the routine outside air makeup through the normal air intake can be represented by the Unit 2 release locations to the TSC air intake  $\chi/Q$  values for the fuel handling accident. What are the distances and directions from the Unit 2 vent and the closest location on the Unit 2 reactor wall to the normal intake? What is the height of the normal intake? What is the scale of Figure 2 of Enclosure 1? Is the direction shown true north?

#### **SNC Response**

The North direction shown on the various drawings provided in the SNC April 27, 2008 letter is true north; however, the drawings are diagrammatic and not-to-scale. A scaled, dimensioned markup is attached showing the dimensions and elevations of the Unit 2 plant vent stack, TSC intake, and normal CR intake. The drawing provides directions and distances between the release and intake points as described below.

Reactor Bldg -TSC:		Reactor Bldg - CR Normal Intake:
Horizontal distance (ft) Vertical Distance (ft) Direction (deg from North)	44.5 0 66	60 0 31
Vent – CR Normal Intake:		
Horizontal distance (ft) Vertical Distance (ft) Direction (deg from North)	122 121.5 64	

