

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



May 12, 2008

Docket Nos.: 50-348
50-364

NL-08-0517

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

Joseph M. Farley Nuclear Plant Unit 1 and 2
License Amendment Request to Technical Specification 3.9.3, Containment
Penetrations – Personnel Air Locks Doors Open During Fuel Movement

Ladies and Gentlemen:

By letter dated April 27, 2007 Southern Nuclear Operating Company (SNC) proposed a change to the Joseph M. Farley Nuclear Plant (FNP) Unit 1 and Unit 2 Technical Specifications (TS) 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.

On March 19, 2008, SNC discussed the proposed Request for Additional Information (RAI) questions with the NRC Staff. The NRC provided a RAI in letter dated April 2, 2008. Enclosed is the SNC response to the NRC questions.

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

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 a revised NRC commitment. 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 12th day of May, 2008.


Notary Public

My commission expires: July 5, 2010

LMS/BDM/daj

Enclosure: Containment Air Lock RAI, Request to Allow Personnel Air Locks
Open During Fuel Movement

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#14744

U. S. Nuclear Regulatory Commission
Mr. V. M. McCree, Acting Regional Administrator
Mr. R.A. Jervy, NRR Project Manager – Farley
Mr. E. L. Crowe, Senior Resident Inspector – Farley

Alabama Department of Public Health
Dr. D. E. Williamson, State Health Officer

**Joseph M. Farley Nuclear Plant Unit 1 and 2
License Amendment Request to Technical Specification 3.9., Containment
Penetrations – Personnel Air Locks Doors Open During Fuel Movement**

Enclosure

**Containment Air Lock RAI
Request to Allow Personnel Air Locks Open During Fuel Movement**

Enclosure

Containment Air Lock RAI Request to Allow Personnel Air Locks Open During Fuel Movement

1. NRC Question

The LAR makes reference in several places to Fuel Handling Accident durations and response times:

Accident Duration:

Enclosure 1, Section 1.0 (page 2 of 24) "In summary, the dose consequences of a FHA inside containment with the containment air locks open for the duration of the accident release are within the radiological dose guidelines of 10 CFR 100 and GDC 19."

Enclosure 1, Section 3.1 (page 6 of 24) "SNC also assumed that essentially 100 percent of the fission products released from the reactor cavity are released to the environment in two hours without any credit for filtration."

Response Times:

Enclosure 1, Section 2.4 (page 5 of 24) "SNC is processing a supporting TS Bases change requiring that in the event of a FHA an open personnel air lock can and will be closed promptly following containment evacuation. No other controls are considered necessary to implement this amendment. This closure can be completed within two hours of the fuel handling accident."

Enclosure 1, Section 3.2 (page 12 of 24) "SNC performed an evaluation of potential doses to the worker's thyroid, whole body, and skin. The equipment hatch and the personnel air locks will be closed within two hours of the event. The closure crew will require less than 1 hour inside containment."

Enclosure 2, Technical Specification and Bases Markups Pages, LCO (page 6 of 9) "The equipment hatch and personnel air lock door openings must be capable of being cleared of any obstruction so that closure can be achieved as soon as possible."

Enclosure 2, Technical Specification and Bases Markups Pages, Insert B 3.9.3 (page 7 of 9) "The closure of the equipment hatch and the personnel air locks will be completed promptly following a fuel handling accident within containment."

Please clarify that based on the analysis, if there is a need to close the equipment hatch and personnel air locks in two hours? If such a need exists, why is the specific time not discussed in the bases section? Where are the requirements included to direct the personnel to accomplish the closure in two hours?

Enclosure

Containment Air Lock RAI Request to Allow Personnel Air Locks Open During Fuel Movement

SNC Response

Based on an analysis, there is no need to close the Personnel Air Locks in two hours. As Described in Section 3.1 of Enclosure 1 of the April 27, 2007 submittal, SNC assumed that essentially 100 percent of the fission products released from the reactor cavity are released to the environment in 2 hours without any credit for filtration. As defense in depth, the commitment was made to have one door in each personnel air lock closed following evacuation of containment. The two hour closure time was not included in the Technical Specification Bases since the analysis did not extend beyond two hours. Upon NRC approval, the regulatory commitment described in Enclosure 4 of the April 27, 2007 submittal will be entered into the Corrective Action Program (CAP) to ensure that appropriate site guidance is revised to ensure closure of the personnel air lock within two hours.

SNC is revising the Regulatory Commitments provided in Enclosure 4 of the SNC letter NL-07-0067 dated April 27, 2007 as follows.

SNC procedures will ensure that the containment equipment hatch is installed and containment personnel air locks have at least one door closed promptly following a fuel handling accident inside containment. The designated trained hatch closure crew will be augmented to include additional personnel to have one door in each personnel air lock closed following evacuation of containment.

This regulatory commitment will be completed prior to the implementation date after approval of this amendment request by the NRC.

2. NRC Question

Enclosure 1, Section 3.2 – It is stated in the first paragraph of this section that training and actual performance or simulation of the hatch closure is required of Mechanical Maintenance Journeyman. However, it is also stated in the fourth paragraph of this section that, because of existing training, no additional training would be required to support closure activities. Bases section B 3.9.3 (Enclosure 2, page 5 of 9) states (under LCO) that for the equipment hatch and personnel air locks, closure capability are provided by a designated trained closure crew and the necessary equipment. Please clarify if any additional training is planned due to the proposed change. Will the closure of the equipment hatch and personnel air locks take place in series or in parallel? Since additional doors are required to be closed due to the change, will there be an increase in available Mechanical Maintenance Journeymen or plans to make dedicated personnel available for this purpose? Also, explain why additional training would not be necessary, considering that there are more doors to be closed under conditions that are distinctly different from a normal closure?

Enclosure

Containment Air Lock RAI Request to Allow Personnel Air Locks Open During Fuel Movement

SNC Reponse

It is anticipated that the equipment hatch will be closed first and then the personnel air locks will be closed as the closure crew exits containment.

Current FNP Technical Specification Bases for LCO 3.9.3 describes that for the equipment hatch, closure capability is provided by a designated trained hatch closure crew with the necessary equipment. This crew will be augmented with additional trained personnel to have one door in each personnel air lock closed following evacuation of containment. These augmented personnel have been trained to close the personnel air lock door and the equipment hatch. Procedures and training ensures that one personnel air lock door can be closed if a fuel handling accident occurs inside containment.

3. NRC Question

A normal unfiltered intake of 2,340 ft³/min to the control room ventilation was assumed at the start of the FHA. Has any changes taken place in the normal intake flow path since the last measurements were made? If so, how did it affect the normal intake quantity?

SNC Response

Modifications to the normal control room makeup air system were completed in early 2007. A replacement air handling unit was installed. The air intake louver was reduced in size. The outside air manual balancing damper was relocated to the louver and reduced in size. No change in design flow rate was required due to these equipment upgrades. The FSAR descriptions of the air flow rates for this system are being updated to correct an out-of-date description. No design changes have occurred to the control room ventilation system for the normal unfiltered intake flow rate since the baseline integrated tracer gas testing for GL-2003-01. Therefore, the analysis unfiltered flow rate remains bounded by the 2,340 ft³/min assumption.