

August 5, 2005

Mr. L. M. Stinson
Vice President - Farley Project
Southern Nuclear Operating
Company, Inc.
P.O. Box 1295
Birmingham, AL 35201-1295

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2, ENVIRONMENTAL
ASSESSMENT RELATED TO EXEMPTION TO 10 CFR PART 50,
APPENDIX R, SECTION III.G.2.c (TAC NOS. MC0627 AND MC0628)

Dear Mr. Stinson:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your letters dated August 28, 2003, December 28, 2004, and June 9, 2005, that requested revisions to exemptions from certain Appendix R requirements for Fire Area 72 that were granted in Exemption Request 1-3 in the NRC's letter dated December 29, 1986.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

/RA/

Robert E. Martin, Senior Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

Enclosure: Environmental Assessment

cc w/encl: See next page

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Date	8/5/05	8/5/05	8/5/05	8/4/05	8/4/05

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Joseph M. Farley Nuclear Plant, Units 1 & 2

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UNITED STATES NUCLEAR REGULATORY COMMISSION
SOUTHERN NUCLEAR OPERATING COMPANY
DOCKET NOS. 50-348 AND 50-364
JOSEPH M. FARLEY NUCLEAR POWER PLANT, UNITS 1 AND 2
ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an exemption from Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," Section III.G.2.c, for Facility Operating License Nos. NPF-2 and NPF-8, issued to Southern Nuclear Operating Company (SNC or the licensee), for operation of the Joseph M. Farley Nuclear Power Plant (FNP), Units 1 and 2, located in Houston County, Alabama. Therefore, as required by 10 CFR 51.21, the NRC is issuing this environmental assessment and finding of no significant impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

On December 29, 1986, the NRC staff granted Exemption Request 1-3, "Service Water Intake Structure - Fire Area 72," from certain requirements of Appendix R, Section III.G.2.c, that require fire detection and fire suppression capabilities and the enclosure of cables, equipment, and associated non-safety circuits of one redundant train of safe shutdown equipment in a one-hour rated fire barrier. Exemption Request 1-3, issued on December 29, 1986, listed a total of ten items specific to Fire Area 72 for the Service Water Intake Structure (SWIS), which is common to FNP, Units 1 and 2.

By letters dated August 28, 2003, December 28, 2004, and June 9, 2005, SNC submitted proposed revisions to Exemption Request 1-3. SNC stated that the proposed revisions to Exemption Request 1-3 would clarify FNP's fire protection licensing basis, delete unnecessary attributes of the prior approved exemption, and revise the remaining exemption attributes to remove references to the Kaowool one-hour fire barrier material. SNC also stated that the proposed revision to Exemption Request 1-3 is part of SNC's comprehensive plan to respond to concerns about Kaowool fire barrier material. SNC's August 28, 2003, letter provided the disposition for the original ten items plus one additional item related to Exemption Request 1-3. For two of these items, no change in the basis for their inclusion as exemption items was proposed and they were not considered further. For two of the items related to the service water swing pump cables, the principal basis for their inclusion as exemption items was not changed, however an improvement in defense-in-depth due the upgrading of certain walls within the SWIS to 3-hour rated fire barriers was recognized. For two of the items related to the service water header strainer motor operated inlet valves and swing pump motor operated discharge valves, the basis for the exemption is revised to delete reliance on Kaowool and to reflect the re-analysis that shows that damage to cables in the strainer pit cannot result in spurious operation of the valves. For the discharge-to-wet pit and discharge to storage pond flume valves, SNC showed that, based on deterministic and fire modeling results, that fire effects will not result in the mis-positioning of the valves. For the item related to service water pump cables in Fire Area 72 A, an integrated risk assessment shows that safe shutdown can be achieved even if no credit is taken for the Kaowool raceway enclosures. A previously existing Exemption Request 1-3 item relating to the coordination between safe shutdown and non-safe shutdown circuits was found to have been resolved by modifications to the plant and, accordingly, is deleted from Exemption Request 1-3. For the item related to the redundant Train A and Train B service water and related power cables that enter the SWIS near the

ceiling in the northeast corner, an integrated risk assessment shows that fire damage would not occur to these cables even if no credit were taken for Kaowool. The proposed action, would allow SNC to re-establish the basis for Exemption Request 1-3 based on programmatic and plant design modifications, a deterministic re-analyses of fire protection considerations, a risk-informed plant change evaluation specifically applicable to the SWIS, enhanced controls on transient combustibles, the existing fire detection and automatic fire suppression capability to maintain defense-in-depth, and the availability of manual fire fighting and associated fire fighting equipment.

The Need for the Proposed Action:

The proposed changes to Exemption Request 1-3 from 10 CFR Part 50, Appendix R, Section III.G.2.c is needed to enable SNC to re-establish the bases for the exemption that do not rely on the use of the Kaowool fire barrier material for the enclosure of certain redundant cable trays in the SWIS Fire Area 72.

Environmental Impacts of the Proposed Action:

The NRC has completed its safety evaluation of the proposed action and concludes that the proposed changes to Exemption Request 1-3 will not present an undue risk to the public health and safety. The details of the NRC staff's Safety Evaluation will be provided in the revised Exemption Request 1-3 that will be issued in a letter to the licensee approving the changes to Exemption Request 1-3. The action relates to revising the bases for the adequacy of the fire protection program at FNP.

The proposed action will not significantly increase the probability or consequences of accidents. No changes are being made in the types of effluents that may be released offsite, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action does not have a potential to affect any historic sites. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action:

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the “no-action” alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

The action does not involve the use of any different resources than those previously considered in the Final Environmental Statement related to the operation of the FNP, Units 1 and 2, dated December 1974, and the Final Supplemental Environmental Impact Statement (NUREG-1437, Supplement 18), dated March, 2005.

Agencies and Persons Consulted:

In accordance with its stated policy, on August 4, 2005, the NRC staff consulted with the Alabama State official, David Walters, of the Office of Radiation Control, Alabama Department of Public Health, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly,

the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letters dated August 28, 2003, December 28, 2004, and June 9, 2005. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1-800-397-4209 or 301-415-4737, or by e-mail to pdrc@nrc.gov.

Dated at Rockville, Maryland, this 5th day of August 2005.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Robert E. Martin, Senior Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation