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SOUTHERN COMPANY
Energy to Serve Your World℠

May 31, 2005

Docket Nos.: 50-348
50-364

NL-05-0285

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

Joseph M. Farley Nuclear Plant
ASME Section XI Request for Alternative Numbers
RR-57, Proposed Alternative to IWL-2421(a) Requirements, and
RR-58, Proposed Alternative to IWL-2421(b) Requirements

Ladies and Gentlemen:

Pursuant to 10 CFR 50.55a(a)(3)(i), Southern Nuclear Operating Company (SNC) hereby requests NRC approval of the following two proposed alternatives (RR-57 and RR-58) for the first containment inspection interval at the Joseph M. Farley Nuclear Plant (FNP), Units 1 and 2.

RR-57 SNC proposes an alternative to the 1992 Edition with the 1992 Addenda of ASME Section XI, IWL-2421(a) requirement that, for sites with two plants, the post tensioning operations must be completed not more than two years apart in order to allow the use of the examination requirements and dates as modified by IWL-2421(b). Prior to the regulation change in 1996, the containment structural integrity was required to be maintained in accordance with the requirements of the plant Technical Specification (TS) Containment Tendon Surveillance Program, TS 5.5.6, which references NRC Regulatory Guide 1.35, Rev. 2. In order to apply the requirements of IWL-2421(b), IWL-2421(a) specifies that the post tensioning operations had to have been completed not more than two years apart. A recent review of the records indicates that the post tensioning operations at FNP Units 1 and 2 were 26 months apart. Even though this exceeds the requirements of IWL-2421(a) for applying IWL-2421(b) by 2 months, FNP has been performing containment examinations per the requirements of IWL-2421(b) since IWL expedited examinations started, resulting in one inspection not being completed per the IWL-2420(a) schedule. However, exceeding the post tensioning operations required time by only 2 months does not present any safety or technical concerns because a 2 month difference is insignificant. Both units share the same design, were under construction during the same time period in a sequential manner, and are

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exposed to virtually identical environmental conditions. A comparable relief request was approved by the NRC for Palo Verde Nuclear Generating Station (Accession No. ML003758134, dated October 6, 2000). The NRC's safety evaluation stated, "...only 27 months elapsed between completion of post-tensioning work on Unit 1 and the completion of the same on Unit 3....Therefore, at any point in time, there should be little difference in age-related post-tensioning system degradation among the three units. As a result, examination of any one system should provide the information needed to assess the condition of all three....Therefore, it is concluded that a program requiring a complete examination (per the requirements of Subsection IWL and the added requirements identified in 10 CFR 50.55a) of each containment post-tensioning system at overlapping 10-year intervals will represent a conservative approach to ensuring continuing system quality." Therefore, approval of this proposed alternative will provide an acceptable level of quality and safety. The details of the 10 CFR 50.55a request are enclosed.

RR-58 SNC proposes an alternative to the 1992 Edition with the 1992 Addenda of ASME Section XI, IWL-2421(b) requirement that containment examinations be based on the date of the respective containment's structural integrity test. The details of the 10 CFR 50.55a request are enclosed.

SNC requests approval by June 1, 2006. This letter contains no NRC commitments.

If you have any questions, please advise.

Sincerely,

L. M. Stinson

LMS/LPH/sdl

Enclosures: RR-57, Proposed Alternative to IWL-2421(a) Requirements
RR-58, Proposed Alternative to IWL-2421(b) Requirements

cc: Southern Nuclear Operating Company
Mr. J. T. Gasser, Executive Vice President
Mr. J. R. Johnson, General Manager – Plant Farley
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U. S. Nuclear Regulatory Commission
Dr. W. D. Travers, Regional Administrator
Mr. R. E. Martin, NRR Project Manager – Farley
Mr. C. A. Patterson, Senior Resident Inspector – Farley

Alabama Department of Public Health
Dr. D. E. Williamson

SOUTHERN NUCLEAR OPERATING COMPANY
PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)
RR-57, REVISION 0

Plant Site-Unit:	Joseph M. Farley Nuclear Plant (FNP) - Units 1 and 2
Requested Date for Approval:	Approval is requested by June 1, 2006 to support examinations performed during July 2006.
ASME Code Components Affected:	All Class CC Components.
Applicable Code Edition and Addenda:	ASME Section XI, 1992 Edition and 1992 Addenda.
Background	Prior to the regulations requiring implementation of ASME Section XI, Subsection IWL (i.e., 61 FR 41303, August 8, 1996), the containment structural integrity was required to be maintained in accordance with the requirements of the plant Technical Specifications, Surveillance Requirement (SR) 3.6.1.2 which references the containment Tendon Surveillance Program which is based on NRC Regulatory Guide 1.35, Rev. 2. Regulatory Guide 1.35, Rev. 2 required that containment inspections be performed at 1, 3, and 5 years after the initial Structural Integrity Test (SIT) and then every 5 years thereafter. For the two unit Farley Nuclear Plant, because they are essentially identical containment structures located on one site, because the environmental conditions are the same, and because they were constructed by the same contractor in the same manner at essentially the same time, Regulatory Guide 1.35, Rev. 2 required that all the examinations and tests be performed only on FNP-1. For FNP-2, only the visual examination of the accessible tendons, the tendon anchorage, and the surrounding concrete as well as analysis of the corrosion media and a determination of free water were performed. The Code of Federal Regulations dated August 8, 1996 required the expedited implementation of IWL using the 1992 Edition of Section XI with the 1992 Addenda. The regulations allowed licensees to continue post tensioning system examinations in accordance with a NRC accepted program through the expedited period. Therefore, FNP performed the first IWL post tensioning system examinations for Unit 1 (i.e., 25-year IWL examination of Code Items L2.30, L2.40, and L2.50) in 2002 and will perform the first IWL post tensioning system examinations for Unit 2 (i.e., 25-year IWL examination of Code Items L2.10, L2.20, L2.30, L2.40, and L2.50) in 2006 per the requirements and tolerance allowances of IWL-2421(b), for a two unit site. The prerequisites for using two unit site rules are found in IWL-2421(a) and are similar to the prerequisites found in Regulatory Guide 1.35, Rev. 2; however, IWL-2421(a) has an additional requirement that the post tensioning operations have to have been completed not more than 2 years apart. A recent review of the dates for completion of the post tensioning operations at FNP-1 and FNP-2 indicates that they were completed 26 months apart.

SOUTHERN NUCLEAR OPERATING COMPANY
PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)
RR-57, REVISION 0

Applicable Requirements:	For sites with two plants, IWL-2421(a) allows the use of IWL-2421(b) examination requirements if both containments utilize the same pre-stressing system, if they are essentially identical in design, if the post tensioning operations for the two containments were completed not more than two years apart, and if both containments are similarly exposed to or protected from the outside environment.
Reason for Request:	FNP has been performing post tensioning system containment examinations per the requirements of IWL-2421(b) since IWL post tensioning requirements started in September of 2000. Approval is requested to allow the use of 26 months between the post tensioning operations versus the required 2 years.
Proposed Alternative and Basis for Use:	In lieu of meeting the IWL-2420(a) examination requirements, SNC proposes to use the examination requirements of IWL-2421(b) without meeting the specific two-year (24 month) criteria of IWL-2421(a). This two year criteria was established by the ASME Code to ensure, to the extent practical, that when using the IWL-2421 rules, the two containments on a two plant site would be essentially identical. The Farley Unit 1 Containment post tensioning operation was completed in April 1975 and Farley Unit 2 was completed in June 1977. This exceeds the requirements of IWL-2421(a) for applying IWL-2421(b) by 2 months. Exceeding the post tensioning operations required time by only 2 months does not present any safety or technical concerns because a 2 month difference is insignificant. Both units share the same design, were under construction during the same time period in a sequential manner, and are exposed to virtually identical environment conditions. This proposed alternative has and will continue to provide an acceptable level of quality and safety; therefore, approval of this request per 10 CFR 50.55a(a)(3)(i) is requested.
Duration of Proposed Alternative:	The proposed alternative is applicable for the 1st Containment Inspection Interval and subsequent Intervals.
Precedents:	A comparable relief request was approved by the NRC for Palo Verde Nuclear Generating Station (Accession No. ML003758134, dated October 6, 2000).
References:	NA
Status:	Awaiting NRC approval.

SOUTHERN NUCLEAR OPERATING COMPANY
PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)
RR-58, REVISION 0

Plant Site-Unit:	Joseph M. Farley Nuclear Plant - Units 1 and 2
Requested Date for Approval:	Approval is requested by June 1, 2006 to support examinations performed during July 2006.
ASME Code Components Affected:	All Class CC Components.
Applicable Code Edition and Addenda:	ASME Section XI, 1992 Edition and 1992 Addenda.
Background	Prior to the regulations requiring implementation of ASME Section XI, Subsection IWL (i.e., 61 FR 41303, August 8, 1996), the containment structural integrity was required to be maintained in accordance with the requirements of the plant Technical Specifications, Surveillance Requirement (SR) 3.6.1.2 which references the containment Tendon Surveillance Program which is based on NRC Regulatory Guide 1.35, Rev. 2. Regulatory Guide 1.35, Rev. 2 required that containment inspections be performed at 1, 3, and 5 years after the initial Structural Integrity Test (SIT) and then every 5 years thereafter. The Code of Federal Regulations dated August 8, 1996 required the expedited implementation of IWL using the 1992 Edition of Section XI with the 1992 Addenda. The regulations allowed licensees to continue post tensioning system examinations in accordance with an accepted program by the NRC through the expedited period. Therefore, FNP performed the first IWL post tensioning system examinations for Unit 1 (i.e., 25-year IWL examination of Code Items L2.30, L2.40, and L2.50) in 2002 and will perform the first IWL post tensioning examinations for Unit 2 (i.e., 25-year IWL examination of Code Items L2.10, L2.20, L2.30, L2.40, and L2.50) in 2006 per the requirements and tolerance allowances of IWL-2421(b), for a two unit site.
Applicable Requirements:	For sites with two plants, IWL-2421(b) provides rules when both containments utilize the same pre-stressing system, if they are essentially identical in design, if the post tensioning operations for the two containments were completed not more than two years apart, and if both containments are similarly exposed to or protected from the outside environment (See RR-57 regarding compliance with "two years apart"). IWL-2421(b) requires that examinations be performed as follows: • For the containment with the first SIT, perform the L1.10, L2.10 and L2.20 tendon examinations at 1, 3, and 10 years following the completion of the SIT, and then perform the examinations every 10 years, thereafter. • For the containment with the second SIT, perform the L1.10, L2.10 and L2.20 tendon examinations at 1, 5, and 15 years following the completion of the SIT, and then perform the examinations every 10 years, thereafter. • For each containment, perform Item L2.30 (Anchorage Hardware), Item L2.40 (Corrosion Protection Medium), and L2.50 (Free Water) examinations at 1, 3, and 5 years following the completion of the SIT, and then perform the examinations every 5 years, thereafter.

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PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)
RR-58, REVISION 0

Reason for Request:	SNC proposes to adopt a new "common administrative" date (versus the use of the SIT date for each unit) to determine when IWL required examinations will be performed. This administrative date will be used to re-align the examination dates for the two containments such that the examinations required for each unit may be performed in the same scheduled time period. This will provide a more efficient use of resources while not affecting the level of quality and safety.
Proposed Alternative and Basis for Use:	In lieu of using the original SIT date to determine when future IWL examinations will be required, SNC proposes to use a common containment administrative date of July 2006 for both units. The required Code examination dates using the SIT (given as a range by applying the $\pm$ 12 month Code tolerance) are shown in enclosed Table 1 and the required examination dates using the proposed common administrative date (given as a range by applying the $\pm$ 12 month Code tolerance) is provided in Table 2. A comparison of Table 1 and Table 2 indicates that the major impact is that the FNP-1 examinations may be performed slightly earlier than originally required and that the FNP-2 examinations may be performed slightly later than originally required. This small administrative shift in examination dates should have an inconsequential effect on containment integrity. This proposed alternative will continue to provide an acceptable level of quality and safety; therefore, approval is requested per 10 CFR 50.55a(a)(3)(i).
Duration of Proposed Alternative:	The proposed alternative is applicable for the 1st Containment Inspection Interval and subsequent Intervals.
Precedents:	NA
References:	NA
Status:	Awaiting NRC approval.

SOUTHERN NUCLEAR OPERATING COMPANY
PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)
RR-58, REVISION 0

TABLE 1
CODE REQUIRED IWL CONTAINMENT EXAMINATIONS DATES BASED ON THE STRUCTURAL INTEGRITY TEST (SIT) DATE

FNP-1 (SIT Performed 2/1977)		FNP-2 (SIT Performed 5/1980)	
2/2006 -2/2008 30 year L2.10 and L2.20 Tendon Exams	2/2006 -2/2008 30 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams	5/2004 – 5/2006 25 year L2.10 and L2.20 Tendon Exams	5/2004 – 5/2006 25 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams
	2/2011 – 2/2013 35 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams		5/2009 – 5/2011 30 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams
2/2016 -2/2018 40 year L2.10 and L2.20 Tendon Exams	2/2016 -2/2018 40 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams	5/2014 – 5/2016 35 year L2.10 and L2.20 Tendon Exams	5/2014 – 5/2016 35 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams

TABLE 2
PROPOSED IWL CONTAINMENT EXAMINATIONS DATES BASED ON A COMMON ADMINISTRATIVE DATE OF 7/2006

FNP-1		FNP-2	
7/2005 -7/2007 30 year L2.10 and L2.20 Tendon Exams	7/2005 -7/2007 30 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams	7/2005 -7/2007 25 year L2.10 and L2.20 Tendon Exams	7/2005 -7/2007 25 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams
	7/2010 – 7/2012 35 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams		7/2010 – 7/2012 30 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams
7/2015 -7/2017 40 year L2.10 and L2.20 Tendon Exams	7/2015 – 7/2017 40 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams	7/2015 -7/2017 35 year L2.10 and L2.20 Tendon Exams	7/2015 -7/2017 35 year L2.30 – L2.50 Anchorage Hardware, Corrosion Protection, and Free Water Exams