







FPL

Florida Power & Light Company, P.O. Box 128, Fort Pierce, FL 34954-0128

October 28, 1996

L-96-245  
10 CFR 50.36  
10 CFR 50.90  
10 CFR 50.92

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Re: St. Lucie Unit 2  
Docket No. 50-389  
Proposed License Amendment  
Implementation of 10 CFR 50 Appendix J, Option B

In accordance with 10 CFR 50.90, Florida Power and Light Company (FPL) requests that Appendix A of Facility Operating License NPF-16 be amended to modify the St. Lucie Unit 2 Technical Specifications to implement 10 CFR 50, Appendix J, Option B. The purpose of this amendment is to revise the Technical Specifications to allow Type A, B, and C containment leakage tests to be conducted at extended intervals determined by performance-based criteria.

FPL has determined that the proposed license amendment does not involve a significant hazards consideration pursuant to 10 CFR 50.92. A description of the amendment request is provided in Attachment 1. The no significant hazards determination in support of the proposed Technical Specification changes is provided in Attachment 2. Attachment 3 provides the proposed revised Technical Specifications pages.

In accordance with 10 CFR 50.91(b)(1), a copy of this proposed license amendment is being forwarded to the State Designee for the State of Florida.

The proposed license amendment has been reviewed by St. Lucie Plant Facility Review Group and the FPL Company Nuclear Review Board.

FPL requests review and approval of the proposed license amendment by April, 1997 to support implementation prior to the next refueling outage. Additionally an implementation period of sixty days after NRC approval is requested.

Should there be any questions on this request, please contact us.

Very truly yours,

J. A. Stall  
Vice President  
St. Lucie Plant

A001/1

JAS/REN  
Attachments

cc: S. D. Ebnetter, Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, St. Lucie Plant  
W. A. Passetti, Florida Department of Health and Rehabilitative Services

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Add: NRR/DE/ECGB  
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Proposed License Amendment  
Implementation of 10 CFR 50 Appendix J, Option B

STATE OF FLORIDA            )  
                                      )  
COUNTY OF ST. LUCIE        )            ss.

J. A. Stall being first duly sworn, deposes and says:

That he is Vice President, St. Lucie Plant, for the Nuclear Division of Florida Power & Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this document are true and correct to the best of his knowledge, information and belief, and that he is authorized to execute the document on behalf of said Licensee.

  
\_\_\_\_\_  
J. A. Stall

STATE OF FLORIDA  
COUNTY OF ST. LUCIE

Sworn to and subscribed before me  
this 28 day of October, 19 96  
by J. A. Stall, who is personally known to me.

  
\_\_\_\_\_  
Signature of Notary Public-State of Florida

KAREN WEST  
\_\_\_\_\_  
Name of Notary Public (Print, Type, or Stamp)



KAREN WEST  
MY COMMISSION # CC359926 EXPIRES  
April 18, 1998  
BONDED THRU TROY FARN INSURANCE, INC.

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## ATTACHMENT 1

### DESCRIPTION OF AMENDMENTS REQUEST

#### **Description and Purpose**

Changes are proposed to revise St. Lucie Unit 2 Technical Specifications (TS) to implement 10 CFR 50, Appendix J, Option B, for containment leak testing requirements. These changes are consistent with the recommendations of Nuclear Regulatory Commission (NRC) Regulatory Guide 1.163 Rev 0, *Performance Based Containment Leak-Test Program*, and Nuclear Energy Institute (NEI) 94-01, Rev 0, *Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J*.

Implementing 10 CFR 50 Appendix J Option B will allow Florida Power and Light Company (FPL) to establish the intervals for containment leak-testing based on the performance history and risk significance of the components (containment, penetrations, and valves). All Type A, B, and C testing requirements will be performed at intervals determined by the Containment Leakage Rate Testing Program described in this proposed amendment. The criteria for these new testing intervals will be evaluated based on individual performance history and the permitted intervals specified in Regulatory Guide 1.163 and NEI 94-01.

Changes are also proposed to remove Tables 3.6-1, "Containment Leakage Paths", and 3.6-2, "Containment Isolation Valves" in accordance with Generic Letter 91-08, "Removal of Component Lists from Technical Specifications" and relocate the information to plant procedures.

#### **Background**

Containment leakage testing is currently required by 10 CFR 50, Appendix J at preset intervals. Testing is divided into three categories with Type A, B, and C classifications, depending on the type of component. Type A testing measures the reactor containment overall integrated leakage rate. Type B testing involves the measuring of each pressure-containing or leakage-limiting boundary, e.g. airlock doors and electrical penetrations. Type C testing measures the leakage rate of containment isolation valves.



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Recent regulatory initiatives have focused on a performance-oriented, risk-based approach to establishing regulatory safety standards. Consistent with this approach, the revision of 10 CFR 50, Appendix J, to add Option B, implements this initiative to allow licensees to adopt a performance-based containment leak testing program. This program is based in part on the findings presented in NUREG 1493, "Performance-Based Containment Leak-Test Program, the guidance of NEI 94-01 and Regulatory Guide 1.163.

### Discussion and Description of Proposed Changes

The following changes in the Unit 2 Technical Specifications (TS), shown in Attachment 3, are proposed:

1. TS 1.7 Containment Vessel Integrity: The definition of containment vessel integrity will be revised to delete the reference to Table 3.6-2. A statement regarding administratively controlled valves will be relocated from Table 3.6-2 to the text of TS 1.7.

Justification: Table 3.6-2 is being removed in accordance with the recommendations of Generic Letter 91-08.

2. TS 3/4.6.1.1, Containment Integrity: TS 4.6.1.1.a will be modified to account for the removal of Table 3.6-2 of TS 3.6.3. The exception for administratively controlled valves currently contained in Table 3.6-2 will be relocated to TS 3.6.1.1.a. The requirements of 4.6.1.1.c will be relocated to the Containment Leakage Rate Testing Program and TS 4.6.1.2.

Justification: The specific requirements for containment leak-testing will be located in the Containment Leakage Rate Testing Program as referenced by TS 4.6.1.2. Removal of Table 3.6-2 is in accordance with the recommendations of Generic Letter 91-08.

3. TS 3/4.6.1.2, Containment Leakage: The specific leakage requirements of TS 3.6.1.2 will be relocated to the Containment Leakage Rate Testing Program. The ACTION statement will be revised such that the overall containment leakage rates above which action must be taken reflect the current overall containment leakage rate limit of  $1.0 L_a$  and to include the shutdown requirement when the measured overall containment leakage rate limit exceeds  $1.0 L_a$ . The surveillance requirements for containment leakage will be relocated to the Containment Leakage Rate Testing Program. Table 3.6-1, "Containment Leakage Paths" will be deleted.

Justification: The specific acceptance limits and surveillance requirements for containment leakage will be relocated to the Containment Leakage Rate Testing Program in accordance with 10 CFR 50 Appendix J Option B. Table 3.6-1 will no longer be required, because revised TS 3/4.6.1.2 will reference the Containment Leakage Rate Testing Program for this information.

4. TS 3/4.6.1.3, Containment Air Locks: The requirements for TS 3.6.1.3.b, TS 4.6.1.3.a, and TS 4.6.1.3.b will be incorporated into the new TS 4.6.1.3.a and relocated to the Containment Leakage Rate Testing Program.

Justification: The specific requirements for containment leakage will be relocated to the Containment Leakage Rate Testing Program in accordance with 10 CFR 50 Appendix J Option B.

5. TS 3/4.6.1.6, Containment Structural Integrity: TS 3/4.6.1.6 will be revised to reference the Containment Leakage Rate Testing Program as the guidance for containment visual inspection surveillance interval and recording requirements.

Justification: The specific requirements for visual inspection will be relocated to the Containment Leakage Rate Testing Program.

6. TS 3/4.6.3, Containment Isolation Valves: Reference to Table 3.6-2 will be deleted and Table 3.6-2 will be removed from the TS.

Justification: Removal of the containment isolation valve table is consistent with the recommendations of Generic Letter 91-08. The stroke testing requirements for these valves are contained in plant procedures.

7. TS 3/4.6.6.3 Shield Building Structural Integrity: TS 3/4.6.6.3 will be revised to reference the Containment Leakage Rate Testing Program as the guidance for shield building visual inspection surveillance interval and recording requirements.

Justification: The specific requirements for visual inspection will be relocated to the Containment Leakage Rate Testing Program.

8. Bases Pages B 3/4 6-1 and B3/4 6-2: The Bases section for TS 3/4 6.1.1 is being revised to include a discussion on



administrative control of locked or sealed closed containment isolation valves in accordance with recommendations in Generic Letter 91-08. The Bases sections for TS 3/4.6.1.2, TS 3/4.6.1.6 and TS 3/4.6.6.2 are being revised to reflect 10 CFR 50 Appendix J Option B, Regulatory Guide 1.163, and the Containment Leakage Rate Testing Program.

9. TS 6.8.4.(h), Containment Leakage Rate Testing Program is added: This program shall be established, implemented, and maintained to provide guidance and specific requirements for the performance-based containment leakage testing in accordance with 10 CFR 50, Appendix J Option B and Regulatory Guide 1.163. Note: The (h) denotes that 6.8.4.h is the current sequential location for a new administrative program. Due to other pending submittals, this location could change prior to issuance. Current exemptions and/or deviations shall be noted in the program contents.

The overall containment leakage rate criteria, relocated from existing TS 3.6.1.2, is  $1.0 L_a$  for integrated leakage. Leakage rates are to be less than  $0.75 L_a$  for integrated leakage (Type A) and  $0.60 L_a$  for combined Types B and C leakage, and  $\leq 0.27 L_a$  for secondary containment bypass leakage paths prior to increasing primary coolant temperature above  $200^\circ\text{F}$  after leakage rate testing in accordance with this program. Air lock testing acceptance criteria are: 1) overall air lock leakage rate is  $\leq 0.05 L_a$  when tested at  $\geq P_a$ ; 2) for each door seal, leakage rate is  $< 0.01 L_a$  when pressurized to  $\geq P_a$  psig. The statement applying to Specification 4.0.2 not being applicable is relocated from existing TS 4.6.1.2.

Justification: The performance-based containment leakage program permitted by 10 CFR 50, Appendix J, Option B and Regulatory Guide 1.163 will be governed under these new programmatic controls. The following exception or deviation will be used in the implementation of Option B:

- 1) Type A tests shall be performed in accordance with Bechtel Topical Report BN-TOP-1 Revision 1, dated November 1, 1972, or the guidance of ANS 56.8-1994, as recommended by Regulatory Guide 1.163. BN-TOP-1 was used as the initial method of Type A testing, and its use is permitted by 10 CFR 50, Appendix J.

The specific leakage rate acceptance criteria will be located in the program description as well as the important administrative references and requirements. The

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surveillance interval requirements and performance-based criteria will reside in the plant-controlled administrative procedure used to implement and maintain the Containment Leakage Rate Testing Program, in accordance with NEI 94-01 and Regulatory Guide 1.163.

### Summary

The proposed revision to St. Lucie Unit 2 TS by adopting 10 CFR 50, Appendix J, Option B, will allow FPL to use a set of performance-based criteria to determine the leakage rate testing requirements for components that contribute to containment leakage. This type of programmatic control is endorsed and approved by the NRC as stated in Regulatory Guide 1.163. The criteria used by the licensee will be in accordance with NEI 94-01, as modified by approved exemptions.

ATTACHMENT 2

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Description of Proposed License Amendments

The proposed license amendment involves changes to the existing Technical Specifications (TS) of St. Lucie Unit 2. These changes are consistent with guidance provided by Nuclear Regulatory Commission (NRC) Regulatory Guide 1.163, "Performance Based Containment Leak-Test Program," and Nuclear Energy Institute (NEI) 94-01, Rev 0, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J." These changes do not affect plant design or the modes of plant operation. The proposed amendment will implement 10 CFR 50, Appendix J Option B, which details a performance-based program for containment leakage testing. The following proposed changes are requested:

1. TS 1.7 Containment Vessel Integrity: The definition of containment vessel integrity will be revised to delete the reference to Table 3.6-2. A statement regarding administratively controlled valves will be relocated from Table 3.6-2 to the text of TS 1.7.
2. TS 3/4.6.1.1, Containment Integrity: TS 4.6.1.1.a will be modified to account for the removal of Table 3.6-2 of TS 3.6.3. The exception for administratively controlled valves currently contained in Table 3.6-2 will be relocated to TS 3.6.1.1.a. The requirements of 4.6.1.1.c will be relocated to the Containment Leakage Rate Testing Program and TS 4.6.1.2.
3. TS 3/4.6.1.2, Containment Leakage: The specific leakage requirements of TS 3.6.1.2 will be relocated to the Containment Leakage Rate Testing Program. The ACTION statement will be revised such that the overall containment leakage rates above which action must be taken reflect the current overall containment leakage rate limit of  $1.0 L_a$  and to include the shutdown requirement when the measured overall containment leakage rate limit exceeds  $1.0 L_a$ . The surveillance requirements for containment leakage will be relocated to the Containment Leakage Rate Testing Program. Table 3.6-1, "Containment Leakage Paths" will be deleted.
4. TS 3/4.6.1.3, Containment Air Locks: The requirements for TS 3.6.1.3.b, TS 4.6.1.3.a, and TS 4.6.1.3.b will be

incorporated into the new TS 4.6.1.3.a and relocated to the Containment Leakage Rate Testing Program.

5. TS 3/4.6.1.6, Containment Structural Integrity: TS 3/4.6.1.6 will be revised to reference the Containment Leakage Rate Testing Program as the guidance for containment visual inspection surveillance interval and recording requirements.
6. TS 3/4.6.3, Containment Isolation Valves: Reference to Table 3.6-2 will be deleted and Table 3.6-2 will be removed from the TS.
7. TS 3/4.6.6.3 Shield Building Structural Integrity: TS 3/4.6.6.3 will be revised to reference the Containment Leakage Rate Testing Program as the guidance for shield building visual inspection surveillance interval and recording requirements.
8. Bases Pages B 3/4 6-1 and B3/4 6-2: The Bases section for TS 3/4 6.1.1 is being revised to include a discussion on administrative control of locked or sealed closed containment isolation valves in accordance with recommendations in Generic Letter 91-08. The bases sections for TS 3/4.6.1.2, TS 3/4.6.1.6 and TS 3/4.6.6.2 are being revised to reflect 10 CFR 50 Appendix J Option B, Regulatory Guide 1.163, and the Containment Leakage Rate Testing Program.
9. TS 6.8.4.(h), Containment Leakage Rate Testing Program is added: This program shall be established, implemented, and maintained to provide guidance and specific requirements for the performance-based containment leakage testing in accordance with 10 CFR 50, Appendix J Option B and Regulatory Guide 1.163. Note: The (h) denotes that 6.8.4.h is the current sequential location for a new administrative program. Due to other pending submittals, this location could change prior to issuance. Current exemptions and/or deviations shall be noted in the program contents.

The overall containment leakage rate criteria, relocated from existing TS 3.6.1.2, is  $1.0 L_a$  for integrated leakage. Leakage rates are to be less than  $0.75 L_a$  for integrated leakage (Type A) and  $0.60 L_a$  for combined Type B and C leakage, and  $\leq 0.27 L_a$  for secondary containment bypass leakage paths prior to increasing primary coolant temperature above  $200^\circ\text{F}$  after leakage rate testing, in accordance with this program. Air lock testing acceptance criteria are: 1) overall air lock leakage rate is  $\leq 0.05 L_a$

when tested at  $\geq P_a$ ; 2) for each door seal, leakage rate is  $< 0.01 L_a$  when pressurized to  $\geq P_a$  psig. The statement applying to Specification 4.0.2 not being applicable is relocated from existing TS 4.6.1.2.

## Introduction

The Nuclear Regulatory Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92 (c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Each standard is discussed below for the proposed amendments.

## Discussion

- (1) Operation of the facility in accordance with the proposed amendments would not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated due to the following reasons:

- a) These proposed changes are all consistent with NRC requirements and guidance for implementation of 10 CFR 50, Appendix J Option B, except for the use of Bechtel Topical Report BN-TOP-1 for type A testing. BN-TOP-1 has been previously approved for use in accordance with 10 CFR 50 Appendix J.
- b) Based on industry and NRC evaluations performed in support of developing Option B, these changes potentially result in a minor increase in the consequences of an accident previously evaluated due to the increased testing intervals. However, the proposed changes do not result in an increase in the core damage frequency since the containment system is used for mitigation purposes only.

- c) These changes are expected to result in increased attention on components with poor leakage test history as part of the performance-based nature of Option B, such that the marginally increased consequences from the expanded testing intervals may be further reduced or negated.

Therefore, these changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

- (2) Operation of the facility in accordance with the proposed amendments would not create the possibility of a new or different kind of accident from any accident previously evaluated.

The use of the modified specifications can not create the possibility of a new or different kind of accident from any previously evaluated since the proposed amendments will not change the physical plant or the modes of plant operation defined in the facility operating license. No new failure mode is introduced due to the implementation of a performance-based program for containment leakage rate testing, since the proposed changes do not involve the addition or modification of equipment, nor do they alter the design or operation of affected plant systems, structures, or components.

- (3) Operation of the facility in accordance with the proposed amendments would not involve a significant reduction in a margin of safety.

The operating limits and functional capabilities of the affected systems, structures, and components are basically unchanged by the proposed amendments. The increase in intervals between leak-test surveillances will not significantly reduce the margin of safety as shown by findings in NUREG 1493, "Performance-Based Containment Leak-Test Program", which was based on implementation of the performance-based testing of Option B.

Therefore these changes do not involve a significant reduction in the margin of safety.

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### Summary

Based on the above, FPL has determined that the proposed amendment request does not (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, (3) involve a significant reduction in a margin of safety; and therefore the proposed changes do not involve a significant hazards consideration as defined in 10 CFR 50.92.