



Crystal River Nuclear Plant  
Docket No. 50-302  
Operating License No. DPR-72

Ref: 10 CFR 50.90

December 14, 2006  
3F1206-05

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

**Subject:** Crystal River Unit 3 – License Amendment Request No. 291, Revision 0, Application for Improved Technical Specification Change to Add LCO 3.0.8 on the Operability of Snubbers Using the Consolidated Line Item Improvement Process

Gentlemen:

Pursuant to 10 CFR 50.90, Florida Power Corporation, doing business as Progress Energy Florida, Inc. (PEF), hereby requests an amendment to the Improved Technical Specifications (ITS) for Crystal River Unit 3 (CR-3). The proposed amendment would modify ITS requirements for inoperable snubbers by adding LCO 3.0.8.

Attachment 1 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications. Attachment 2 provides the existing ITS pages marked with strikeout and shadowed text to show the proposed changes. Attachment 3 provides revised ITS pages with revision lines. Attachment 4 provides a summary of the regulatory commitments made in this submittal. Attachment 5 provides the existing ITS Bases pages marked up to show the proposed change (for information only).

PEF requests approval of the proposed License Amendment by July 31, 2007, with the amendment being implemented within ninety days of issuance.

The CR-3 Plant Nuclear Safety Committee has reviewed this request and recommended it for approval.

If you should have any questions regarding this submittal, please contact Mr. Paul Infanger, Supervisor, Licensing & Regulatory Programs at (352) 563-4796.

Sincerely,

Daniel L. Roderick  
Director Site Operations  
Crystal River Nuclear Plant

- Attachments:
1. Description and Assessment
  2. Proposed Revised Improved Technical Specification Pages – Strikeout/Shadowed Format
  3. Proposed Revised Improved Technical Specification Pages – Revision Bar Format
  4. Regulatory Commitment
  5. Proposed Improved Technical Specification Bases Pages

xc: NRC Project Manager  
NRC Regional Office  
NRC Resident Inspector

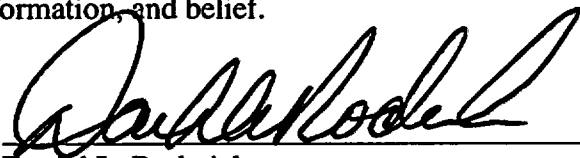
Progress Energy Florida, Inc.  
Crystal River Nuclear Plant  
15760 W. Powerline Street  
Crystal River, FL 34428

A001

**STATE OF FLORIDA**

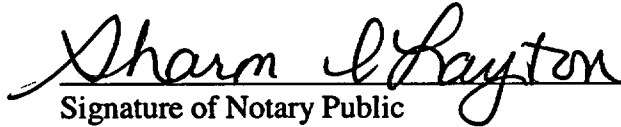
**COUNTY OF CITRUS**

Daniel L. Roderick states that he is the Director Site Operations, Crystal River Nuclear Plant for Florida Power Corporation, doing business as Progress Energy Florida, Inc.; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information, and belief.



Daniel L. Roderick  
Director Site Operations  
Crystal River Nuclear Plant

The foregoing document was acknowledged before me this 14<sup>th</sup> day of December, 2006, by Daniel L. Roderick.



Signature of Notary Public  
State of Florida



(Print, type, or stamp Commissioned  
Name of Notary Public)

Personally Known   ✓   -OR- Produced Identification

**PROGRESS ENERGY FLORIDA, INC.**

**CRYSTAL RIVER - UNIT 3**

**DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72**

**License Amendment Request No. 291, Revision 0, Application for Improved  
Technical Specification Change to Add LCO 3.0.8 on the Operability of  
Snubbers Using the Consolidated Line Item Improvement Process**

**ATTACHMENT 1**

**Description and Assessment**

## DESCRIPTION AND ASSESSMENT

### 1.0 DESCRIPTION

The proposed amendment would modify Improved Technical Specifications (ITS) requirements for inoperable snubbers by adding specification 3.0.8:

When one or more required snubbers are unable to perform their associated support function(s), any affected supported LCO(s) are not required to be declared not met solely for this reason if risk is assessed and managed, and:

- a. the snubbers not able to perform their associated support function(s) are associated with only one train or subsystem of a multiple train or subsystem supported system or are associated with a single train or subsystem supported system and are able to perform their associated support function within 72 hours; or
- b. the snubbers not able to perform their associated support function(s) are associated with more than one train or subsystem of a multiple train or subsystem supported system and are able to perform their associated support function within 12 hours.

At the end of the specified period the required snubbers must be able to perform their associated support function(s), or the affected supported system LCO(s) shall be declared not met.

The changes are consistent with Nuclear Regulatory Commission (NRC) approved Industry/Technical Specification Task Force (TSTF) STS change TSTF-372 Revision 4. The availability of this ITS improvement was published in the *Federal Register* on May 4, 2005, as part of the Consolidated Line Item Improvement Process (CLIIP).

### 2.0 ASSESSMENT

#### 2.1 Applicability of Published Safety Evaluation

Florida Power Corporation, (FPC) has reviewed the safety evaluation dated May 4, 2005, as part of the CLIIP. This review included a review of the NRC staff's evaluation, as well as the supporting information provided to support TSTF-372. FPC has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to Crystal River Unit 3 (CR-3) and justify this amendment for the incorporation of the changes to the CR-3 ITS.

## **2.2 Optional Changes and Variations**

FPC is not proposing any variations or deviations from the ITS changes described in the TSTF-372 Revision 4 or the NRC staff's model safety evaluation dated May 4, 2005.

## **3.0 REGULATORY ANALYSIS**

### **3.1 No Significant Hazards Consideration Determination**

FPC has reviewed the proposed no significant hazards consideration determination (NSHCD) published in the *Federal Register* as part of the CLIP. FPC has concluded that the proposed NSHCD presented in the *Federal Register* notice is applicable to CR-3 and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

### **3.2 Verification and Commitments**

As discussed in the notice of availability published in the *Federal Register* on May 4, 2005 for this ITS improvement, plant-specific verifications were performed as follows:

1. Appropriate plant procedures and administrative controls will be used to implement the following Tier 2 Restrictions.
  - a. At least one Emergency Feedwater Train (including a minimum set of supporting equipment required for its successful operation) not associated with the inoperable snubber(s) will be available when LCO 3.0.8a is used at CR-3.
  - b. At least one Emergency Feedwater Train (including a minimum set of supporting equipment required for its successful operation) not associated with the inoperable snubber(s) or an alternative means of core cooling, Feed and Bleed (HPI/PORV cooling), will be available when LCO 3.0.8b is used at CR-3.
  - c. Not applicable to CR-3.
  - d. Not applicable to CR-3.
  - e. Every time the provisions of LCO 3.0.8 are used CR-3 will confirm that at least one train (or subsystem) of systems supported by the inoperable snubbers will remain capable of performing their required safety or support functions for postulated design loads other than seismic loads. LCO 3.0.8 does not apply to non-seismic snubbers. A record of the design function of the inoperable snubber (i.e. seismic vs. non-seismic), implementation of any applicable Tier 2 restrictions, and the associated plant configuration will be available on a recoverable basis for staff inspection.
2. CR-3 will use qualitative and quantitative evaluation per 10CFR50.65(a)(4), the Maintenance Rule when invoking Technical Specification 3.0.8.

FPC will establish ITS Bases for LCO 3.0.8 which provide guidance and details on how to implement the new requirements. This guidance will include the verifications in 1.a.,

1.b. and 1.e. as written above. LCO 3.0.8 requires that risk be managed and assessed. The Bases will also state that while the Industry and NRC guidance on implementation of 10 CFR 50.65(a)(4), the Maintenance Rule, does not address seismic risk, LCO 3.0.8 should be considered with respect to other plant maintenance activities, and integrated into the existing Maintenance Rule process to the extent possible so that maintenance on any unaffected train or subsystem is properly controlled, and emergent issues are properly addressed. The risk assessment need not be quantified, but may be a qualitative assessment of the vulnerability of systems and components when one or more snubbers are not able to perform their associated support function. Finally, the licensee is expected to have a Bases Control Program consistent with Section 5.5 of the STS.

#### **4.0 ENVIRONMENTAL EVALUATION**

FPC has reviewed the environmental evaluation included in the model safety evaluation dated May 4, 2005 as part of the CLIP. FPC has concluded that the staff's findings presented in that evaluation are applicable to CR-3 and the evaluation is hereby incorporated by reference for this application.

**PROGRESS ENERGY FLORIDA, INC.**

**CRYSTAL RIVER - UNIT 3**

**DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72**

**License Amendment Request No. 291, Revision 0, Application for Improved  
Technical Specification Change to Add LCO 3.0.8 on the Operability of  
Snubbers Using the Consolidated Line Item Improvement Process**

**ATTACHMENT 2**

**PROPOSED REVISED IMPROVED TECHNICAL SPECIFICATION PAGES**

**STRIKEOUT/SHADOWED FORMAT**

~~Strikeout Text~~ Indicates Deleted Text

Shadowed Text Indicates Added Text

3.0 LCO APPLICABILITY

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LCO 3.0.6  
(continued)            When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

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LCO 3.0.7            PHYSICS TESTS Exception LCOs (Specification 3.1.8 and 3.1.9) allow specified Technical Specifications (TS) requirements to be suspended to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with PHYSICS TESTS Exception LCOs is optional. When a PHYSICS TEST Exception LCO is desired to be met but is not met, the ACTIONS of the PHYSICS TESTS Exception LCO shall be met. When a PHYSICS TEST Exception LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with other applicable Specifications.

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LCO 3.0.8            When one or more required snubbers are unable to perform their associated support function(s), any affected supported LCO(s) are not required to be declared not met solely for this reason if risk is assessed and managed, and:

- a.    the snubbers not able to perform their associated support function(s) are associated with only one train or subsystem of a multiple train or subsystem supported system or are associated with a single train or subsystem supported system and are able to perform their associated support function within 72 hours; or
- b.    the snubbers not able to perform their associated support function(s) are associated with more than one train or subsystem of a multiple train or subsystem supported system and are able to perform their associated support function within 12 hours.

At the end of the specified period the required snubbers must be able to perform their associated support function(s), or the affected supported system LCO(s) shall be declared not met.

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**ATTACHMENT 3**

**PROPOSED REVISED IMPROVED TECHNICAL SPECIFICATION PAGES**

**REVISION BAR FORMAT**

3.0 LCO APPLICABILITY

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LCO 3.0.6 (continued) When a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

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LCO 3.0.7 PHYSICS TESTS Exception LCOs (Specification 3.1.8 and 3.1.9) allow specified Technical Specifications (TS) requirements to be suspended to permit performance of special tests and operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with PHYSICS TESTS Exception LCOs is optional. When a PHYSICS TEST Exception LCO is desired to be met but is not met, the ACTIONS of the PHYSICS TESTS Exception LCO shall be met. When a PHYSICS TEST Exception LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with other applicable Specifications.

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LCO 3.0.8 When one or more required snubbers are unable to perform their associated support function(s), any affected supported LCO(s) are not required to be declared not met solely for this reason if risk is assessed and managed, and:

- a. the snubbers not able to perform their associated support function(s) are associated with only one train or subsystem of a multiple train or subsystem supported system or are associated with a single train or subsystem supported system and are able to perform their associated support function within 72 hours; or
- b. the snubbers not able to perform their associated support function(s) are associated with more than one train or subsystem of a multiple train or subsystem supported system and are able to perform their associated support function within 12 hours.

At the end of the specified period the required snubbers must be able to perform their associated support function(s), or the affected supported system LCO(s) shall be declared not met.

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**PROGRESS ENERGY FLORIDA, INC.**

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**ATTACHMENT 4**

**REGULATORY COMMITMENT**

### Regulatory Commitments

The following table identifies those actions committed to by Florida Power Corporation (FPC) in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments. Please direct questions regarding these commitments to Mr. Paul Infanger, Supervisor, Licensing & Regulatory Programs at (352) 563-4796.

<b>Regulatory Commitments</b>	<b>Due date/event</b>
FPC will establish the Improved Technical Specification Bases for LCO 3.0.8 as adopted with the applicable license amendment.	Within 90 days of implementation of amendment

**PROGRESS ENERGY FLORIDA, INC.**

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**ATTACHMENT 5**

**PROPOSED IMPROVED TECHNICAL SPECIFICATION BASES PAGES**

B 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

BASES

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LCO 3.0.1 through LCO 3.0.8 establish the general requirements applicable to all Specifications and apply at all times, unless otherwise stated.

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LCO 3.0.1 LCO 3.0.1 establishes the Applicability statement within each individual Specification as the requirement for when the LCO is required to be met (i.e., when the unit is in the MODE or other specified conditions of the Applicability statement of each Specification).

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LCO 3.0.2 LCO 3.0.2 establishes that upon discovery of a failure to meet an LCO, the associated ACTIONS shall be met. The Completion Time of each Required Action for an ACTIONS Condition is applicable from the point in time that an ACTIONS Condition is entered. The Required Actions establish those remedial measures that must be taken within specified Completion Times when the requirements of an LCO are not met. This Specification establishes that:

- a. Completion of the Required Actions within the specified Completion Times constitutes compliance with a Specification; and
- b. Completion of the Required Actions is not required when an LCO is met within the specified Completion Times, unless otherwise specified.

There are two basic types of Required Actions. The first type of Required Action specifies a time limit in which the LCO must be met. This time limit is the Completion Time to restore an inoperable system or component to OPERABLE status or to restore variables to within specified limits. If this type of Required Action is not completed within the specified Completion Time, a shutdown may be required to place the unit in a MODE or condition in which the Specification is not applicable. (Whether stated as a Required Action or not, correction of the entered Condition is an action that may always be considered upon entering ACTIONS. The second type of Required Action specifies the

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BASES

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LCO 3.0.7 There are certain special tests and operations required to be performed at various times over the life of the unit. These special tests and operations are necessary to demonstrate select unit performance characteristics. PHYSICS TESTS Exceptions LCOs (Specification 3.1.8 and 3.1.9) allow specified TS requirements to be suspended to permit performances of these special tests and operations, which otherwise could not be performed if required to comply with the requirements of these TS. Unless otherwise specified, all other TS requirements remain unchanged. This will ensure all appropriate requirements of the MODE or other specified condition not directly associated with or required to be changed to perform the special test or operation will remain in effect.

Compliance with PHYSICS TESTS Exception LCO is optional. A special operation may be performed either under the provisions of the appropriate PHYSICS TESTS Exception LCO or under the other applicable TS requirements. If it is desired to perform the special operation under the provisions of the PHYSICS TESTS Exception LCO, the requirements of the PHYSICS TESTS Exception LCO shall be followed. The surveillances of the other LCO are not required to be met, unless specified in the PHYSICS TESTS Exception LCO.

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LCO 3.0.8 LCO 3.0.8 establishes conditions under which systems are considered to remain capable of performing their intended safety function when associated snubbers are not capable of providing their associated support function(s). This LCO states that the supported system is not considered to be inoperable solely due to one or more snubbers not capable of performing their associated support function(s). This is appropriate because a limited length of time is allowed for maintenance, testing, or repair of one or more snubbers not capable of performing their associated support function(s) and appropriate compensatory measures are specified in the snubber requirements, which are located outside of the ITS under licensee control. LCO 3.0.8 applies to snubbers that have seismic function only. It does not apply to snubbers that also have design functions to mitigate steam/water hammer or other transient loads. The snubber requirements do not meet the criteria in 10 CFR 50.36(c)(2)(ii), and, as such, are appropriate for control by the licensee.

When a snubber is to be rendered incapable of performing its related support function (i.e., nonfunctional) for testing or maintenance or is discovered to not be functional, it must be determined whether any system(s) require the affected

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BASES

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LCO 3.0.8  
(continued)

snubber(s) for system OPERABILITY, and whether the plant is in a MODE or specified condition in the Applicability that requires the supported system(s) to be OPERABLE.

If an analysis determines that the supported system(s) do not require the snubber(s) to be functional in order to support the OPERABILITY of the system(s), LCO 3.0.8 is not needed. IF the LCO(S) associated with any supported system(s) are not currently applicable (i.e., the plant is not in a MODE or other specified condition in the Applicability of the LCO), LCO 3.0.8 is not needed. If the supported system(s) are inoperable for reasons other than snubbers, LCO 3.0.8 cannot be used. LCO 3.0.8 is an allowance, not a requirement. When a snubber is nonfunctional, any supported system(s) may be declared inoperable instead of using LCO 3.0.8.

Every time the provisions of LCO 3.0.8 are used, CR-3 will confirm that at least one train (or subsystem) of systems supported by the inoperable snubbers will remain capable of performing their required safety or support functions for postulated design loads other than seismic loads.

LCO 3.0.8 does not apply to non-seismic snubbers. A record of the design function of the inoperable snubber (i.e., seismic vs. non-seismic), implementation of any applicable Tier 2 restrictions, and the associated plant configuration will be available on a recoverable basis for NRC staff inspection. The applicable action for each snubber (LCO 3.0.8.a, LCO 3.0.8.b or engineering evaluation required) will be listed in the Equipment Database (EDB).

If the allowed time expires and the snubber(s) are unable to perform their associated support function(s), the affected supported system's LCO(s) must be declared not met and the Conditions and Required Actions entered in accordance with LCO 3.0.2.

LCO 3.0.8.a applies when one or more snubbers are not capable of providing their associated support function(s) to a single train or subsystem of a multiple train or subsystem supported system or to a single train or subsystem supported system. LCO 3.0.8.a allows 72 hours to restore the snubber(s) before declaring the supported system inoperable. The 72 hour Completion Time is reasonable based on the low probability of a seismic event concurrent with an event that would require operation of the supported system occurring while the snubber(s) are not capable of performing their associated support function and

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BASES

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LCO 3.0.8  
(continued)

due to the availability of the redundant train of the supported system. At least one Emergency Feedwater Train (including a minimum set of supporting equipment required for its successful operation) not associated with the inoperable snubber(s) will be available when LCO 3.0.8.a is used at CR-3.

LCO 3.0.8.b applies when one or more snubbers are not capable of providing their associated support function(s) to more than one train or subsystem of a multiple train or subsystem supported system. LCO 3.0.8.b allows 12 hours to restore the snubber(s) before declaring the supported system inoperable. The 12 hour Completion Time is reasonable based on the low probability of a seismic event concurrent with an event that would require operation of the supported system occurring while the snubber(s) are not capable of performing their associated support function. For snubbers that impact both trains of EFW, HPI/PORV cooling capability must be verified before utilizing 3.0.8.b. At least one Emergency Feedwater Train (including a minimum set of supporting equipment required for its successful operation) not associated with the inoperable snubber(s) or an alternative means of core cooling, HPI/PORV cooling, will be available when LCO 3.0.8.b is used at CR-3.

LCO 3.0.8 requires that risk be assessed and managed. Industry and NRC guidance on the implementation of 10 CFR 50.65(a)(4) (the Maintenance Rule) does not address seismic risk. However, use of LCO 3.0.8 should be considered with respect to other plant maintenance activities, and integrated into the existing Maintenance Rule process to the extent possible so that maintenance on any unaffected train or subsystem is properly controlled, and emergent issues are properly addressed. The risk assessment need not be quantified, but may be a qualitative awareness of the vulnerability of systems and components when one or more snubbers are not able to perform their associated support function.

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