



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

Ref: 10 CFR 50.90

September 21, 2004
3F0904-02

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

Subject: Crystal River Unit 3 – License Amendment Request No. 284, Revision 0,
Application For Technical Specification Improvement To Relax Requirement For
Hydrogen Monitors 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 will delete the CR-3 ITS requirement related to containment hydrogen monitors. The proposed ITS changes support implementation of the revisions to 10 CFR 50.44, "Standards for Combustible Gas Control System in Light-Water-Cooled Power Reactors," that became effective on October 16, 2003. The changes are consistent with Revision 1 of NRC-approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-447, "Elimination of Hydrogen Recombiners and Change to Hydrogen and Oxygen Monitors." The availability of this TS improvement was announced in the *Federal Register* on September 25, 2003, (68 FR 55416), as part of the consolidated line item improvement process (CLIP).

Attachment 1 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications and commitments. Attachment 2 provides the existing TS pages marked-up to show the proposed change. Attachment 3 provides revised, clean TS pages. Implementation of TSTF-447 also involves various changes to the TS Bases. The TS Bases changes will be submitted with a future update in accordance with ITS 5.6.2.17, "Technical Specifications (TS) Bases Control Program."

PEF requests approval of the proposed License Amendment by February 28, 2005, with the amendment being implemented within 60 days.

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

In accordance with 10 CFR 50.91, a copy of this application, with attachments, is being provided to the designated Florida State Official.

If you should have any questions regarding this submittal, please contact Mr. Sid Powell, Supervisor, Licensing & Regulatory Programs, at (352) 563-4883.

Sincerely,

A handwritten signature in cursive script that reads "Dale E. Young".

Dale E. Young
Vice President
Crystal River Nuclear Plant

- Attachments:
1. Description and Assessment
 2. Proposed Technical Specification Changes
 3. Revised Technical Specification Pages
 4. Regulatory Commitments

cc: NRR Project Manager
Regional Office
Resident Inspector
State Contact

STATE OF FLORIDA

COUNTY OF CITRUS

Dale E. Young states that he is the Vice President, 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.

Dale E Young
Dale E. Young
Vice President
Crystal River Nuclear Plant

The foregoing document was acknowledged before me this 21st day of September, 2004, by Dale E. Young

Lisa A Morris
Signature of Notary Public
State of Florida



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

Personally Known X -OR- Produced Identification _____

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER - UNIT 3

DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72

**License Amendment Request No. 284, Revision 0, Application For Technical
Specification Improvement To Relax Requirements For Hydrogen Monitors
Using The Consolidated Line Item Improvement Process**

ATTACHMENT 1

Description and Assessment

DESCRIPTION AND ASSESSMENT

1.0 INTRODUCTION

The proposed License amendment deletes references to the hydrogen monitors in the Crystal River – Unit 3 (CR-3) Improved Technical Specifications (ITS) 3.3.17, “Post Accident Monitoring (PAM) Instrumentation.” The proposed ITS changes support implementation of the revisions to 10 CFR 50.44, “Standards for Combustible Gas Control System in Light-Water-Cooled Power Reactors,” that became effective on October 16, 2003.

The changes are consistent with Revision 1 of NRC-approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-447, “Elimination of Hydrogen Recombiners and Change to Hydrogen and Oxygen Monitors.” The availability of this ITS improvement was announced in the *Federal Register* on September 25, 2003, (68 FR 55416), as part of the consolidated line item improvement process (CLIP).

2.0 DESCRIPTION OF PROPOSED AMENDMENT

Consistent with the NRC-approved Revision 1 of TSTF-447, the proposed ITS changes include:

ITS 3.3.17	SR 3.3.17.2, NOTE	Deleted
Table 3.3.17-1	Item 12, Containment Hydrogen Concentration	Deleted

As described in NRC-approved Revision 1 of TSTF-447, the changes to ITS requirements results in changes to various ITS Bases sections. The ITS Bases changes will be submitted with a future update in accordance with TS 5.6.2.17, “Technical Specifications (TS) Bases Control Program.”

3.0 BACKGROUND

The background for this application is adequately addressed by the NRC Notice of Availability published on September 25, 2003, (68 FR 55416), TSTF-447, the documentation associated with the 10 CFR 50.44 rulemaking, and other related documents.

4.0 REGULATORY REQUIREMENTS AND GUIDANCE

The applicable regulatory requirements and guidance associated with this application are adequately addressed by the NRC Notice of Availability published on September 25, 2003, (68 FR 55416), TSTF-447, the documentation associated with the 10 CFR 50.44 rulemaking, and other related documents.

5.0 TECHNICAL ANALYSIS

Florida Power Corporation, doing business as Progress Energy Florida, Inc. (PEF), has reviewed the safety evaluation (SE) published on September 25, 2003, (68 FR 55416), as part of the CLIIP Notice of Availability. This verification included a review of the NRC staff's SE, as well as the supporting information provided to support TSTF-447. PEF has concluded that the justifications presented in the TSTF proposal and the SE 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.

6.0 REGULATORY ANALYSIS

A description of this proposed change and its relationship to applicable regulatory requirements and guidance was provided in the NRC Notice of Availability published on September 25, 2003, (68 FR 55416), TSTF-447, the documentation associated with the 10 CFR 50.44 rulemaking, and other related documents.

6.1 Verification and Commitments

As discussed in the model SE published in the *Federal Register* on September 25, 2003, (68 FR 55416), for this TS improvement, PEF is making the following verifications and regulatory commitments:

1. PEF has verified that a hydrogen monitoring system capable of diagnosing beyond design-basis accidents is installed at CR-3 and is making a regulatory commitment to maintain that capability at the appropriate Regulatory Guide 1.97 category.

The hydrogen monitors installed at CR-3 are capable of monitoring the hydrogen concentration in containment within the indicating range of 0 to 10% hydrogen. This range was previously approved by the NRC as acceptable and remains sufficient to support this license amendment request. In addition, a CR-3 regulatory commitment established as part of the removal of the Post Accident Sampling System from the CR-3 Improved Technical Specifications included provisions for obtaining grab samples of the containment atmosphere which can be used to supplement the hydrogen monitors.

The requirements for maintaining a hydrogen monitoring system capable of diagnosing beyond design-basis accidents as described above will be included in the Regulatory Guide 1.97 Instrumentation described in the CR-3 Final Safety Analysis Report (FSAR) Section 7.3.5. The FSAR will be revised at the next scheduled update following implementation of the TS amendment.

2. CR-3 does not have an inerted containment.

7.0 NO SIGNIFICANT HAZARDS CONSIDERATION

PEF has reviewed the proposed no significant hazards consideration determination published on September 25, 2003, (68 FR 55416), as part of the CLIIP. PEF has concluded that the proposed determination presented in the notice is applicable to CR-3 and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

8.0 ENVIRONMENTAL EVALUATION

PEF has reviewed the environmental evaluation included in the model SE published on September 25, 2003, (68 FR 55416), as part of the CLIIP. PEF 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.

9.0 PRECEDENT

This application is being made in accordance with the CLIIP. PEF is not proposing variations or deviations from the TS changes described in TSTF-447 or the NRC staff's model SE published on September 25, 2003, (68 FR 55416).

10.0 REFERENCES

Federal Register Notice: Notice of Availability of Model Application Concerning Technical Specification Improvement To Eliminate Hydrogen Recombiner Requirement, and Relax the Hydrogen and Oxygen Monitor Requirements for Light Water Reactors Using the Consolidated Line Item Improvement Process, published September 25, 2003, (68 FR 55416).

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER - UNIT 3

DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72

**License Amendment Request No. 284, Revision 0, Application For Technical
Specification Improvement To Relax Requirements For Hydrogen Monitors
Using The Consolidated Line Item Improvement Process**

ATTACHMENT 2

Proposed Technical Specification Changes

SURVEILLANCE REQUIREMENTS

-----NOTE-----
 These SRs apply to each PAM instrumentation Function in Table 3.3.17-1.

SURVEILLANCE	FREQUENCY
SR 3.3.17.1 -----NOTE----- Not required for Function 4. ----- Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	31 days
SR 3.3.17.2 -----NOTE ----- Neutron detectors are excluded from CHANNEL CALIBRATION. ----- -----NOTE ----- Not required for Functions 23 and 25. ----- Perform CHANNEL CALIBRATION.	NOTE The Frequency for Function 12 is 18 months. ----- 24 months
SR 3.3.17.3 -----NOTE ----- Only required for Functions 23 and 25. ----- Perform CHANNEL FUNCTIONAL TEST.	24 months

Table 3.3.17-1 (page 1 of 1)
Post Accident Monitoring Instrumentation

FUNCTION	REQUIRED CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1
1. Wide Range Neutron Flux	2	E
2. RCS Hot Leg Temperature	2	E
3. RCS Pressure (Wide Range)	2	E
4. Reactor Coolant Inventory	2	F
5. Borated Water Storage Tank Level	2	E
6. High Pressure Injection Flow	2 per injection line	E
7. Containment Sump Water Level (Flood Level)	2	E
8. Containment Pressure (Expected Post-Accident Range)	2	E
9. Containment Pressure (Wide Range)	2	E
10. Containment Isolation Valve Position	2 per penetration ^{(a)(b)}	E
11. Containment Area Radiation (High Range)	2	F
12. Not Used Containment Hydrogen Concentration	2	E
13. Pressurizer Level	2	E
14. Steam Generator Water Level (Start-up Range)	2 per OTSG	E
15. Steam Generator Water Level (Operating Range)	2 per OTSG	E
16. Steam Generator Pressure	2 per OTSG	E
17. Emergency Feedwater Tank Level	2	E
18a. Core Exit Temperature (Thermocouple)	2 thermocouples per core quadrant	E
18b. Core Exit Temperature (Recorder)	2	E
19. Emergency Feedwater Flow	2 per OTSG	E
20. Low Pressure Injection Flow	2	E
21. Degrees of Subcooling	2	E
22. Emergency Diesel Generator kW Indication	2 ^(c)	E
23. LPI Pump Run Status	2	E
24. DHV-42 and DHV-43 Open Position	2	E
25. HPI Pump Run Status	2	E
26. RCS Pressure (Low Range)	2	E

(a) Only one position indication is required for penetrations with one Control Room indicator.

(b) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

(c) One indicator per EDG.

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER - UNIT 3

DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72

**License Amendment Request No. 284, Revision 0, Application For Technical
Specification Improvement To Relax Requirements For Hydrogen Monitors
Using The Consolidated Line Item Improvement Process**

ATTACHMENT 3

Revised Technical Specification Changes

SURVEILLANCE REQUIREMENTS

-----NOTE-----
 These SRs apply to each PAM instrumentation Function in Table 3.3.17-1.

SURVEILLANCE	FREQUENCY
SR 3.3.17.1 -----NOTE----- Not required for Function 4. ----- Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	31 days
SR 3.3.17.2 -----NOTE ----- Neutron detectors are excluded from CHANNEL CALIBRATION. ----- -----NOTE ----- Not required for Functions 23 and 25. ----- Perform CHANNEL CALIBRATION.	24 months
SR 3.3.17.3 -----NOTE ----- Only required for Functions 23 and 25. ----- Perform CHANNEL FUNCTIONAL TEST.	24 months

Table 3.3.17-1 (page 1 of 1)
Post Accident Monitoring Instrumentation

FUNCTION		REQUIRED CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1
1.	Wide Range Neutron Flux	2	E
2.	RCS Hot Leg Temperature	2	E
3.	RCS Pressure (Wide Range)	2	E
4.	Reactor Coolant Inventory	2	F
5.	Borated Water Storage Tank Level	2	E
6.	High Pressure Injection Flow	2 per injection line	E
7.	Containment Sump Water Level (Flood Level)	2	E
8.	Containment Pressure (Expected Post-Accident Range)	2	E
9.	Containment Pressure (Wide Range)	2	E
10.	Containment Isolation Valve Position	2 per penetration ^{(a)(b)}	E
11.	Containment Area Radiation (High Range)	2	F
12.	Not Used		
13.	Pressurizer Level	2	E
14.	Steam Generator Water Level (Start-up Range)	2 per OTSG	E
15.	Steam Generator Water Level (Operating Range)	2 per OTSG	E
16.	Steam Generator Pressure	2 per OTSG	E
17.	Emergency Feedwater Tank Level	2	E
18a.	Core Exit Temperature (Thermocouple)	2 thermocouples per core quadrant	E
18b.	Core Exit Temperature (Recorder)	2	E
19.	Emergency Feedwater Flow	2 per OTSG	E
20.	Low Pressure Injection Flow	2	E
21.	Degrees of Subcooling	2	E
22.	Emergency Diesel Generator kW Indication	2 ^(c)	E
23.	LPI Pump Run Status	2	E
24.	DHV-42 and DHV-43 Open Position	2	E
25.	HPI Pump Run Status	2	E
26.	RCS Pressure (Low Range)	2	E

(a) Only one position indication is required for penetrations with one Control Room indicator.

(b) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

(d) One indicator per EDG.

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER - UNIT 3

DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72

**License Amendment Request No. 284, Revision 0, Application For Technical
Specification Improvement To Relax Requirements For Hydrogen Monitors
Using The Consolidated Line Item Improvement Process**

ATTACHMENT 4

Regulatory Commitments

Regulatory Commitments

The following table identifies those actions committed to by Progress Energy Florida, Inc. (PEF) 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. Sid Powell, Supervisor, Licensing & Regulatory Programs, at (352) 563-4883.

Regulatory Commitments	Due date/event
PEF has verified that a hydrogen monitoring system capable of diagnosing beyond design-basis accidents is installed at CR-3 and is making a regulatory commitment to maintain that capability at the appropriate Regulatory Guide 1.97 category. The hydrogen monitors are included in plant procedures.	Complete