Ref: 10 CFR 54



April 23, 2012 3F0412-03

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

Subject: Crystal River Unit 3 – Revised Commitment for the Reactor Vessel Internals Aging Management Program for License Renewal (TAC NO. ME0274) and License Renewal Application Amendment #24

References:

- (1) CR-3 to NRC letter, 3F1208-01, dated December 16, 2008, "Crystal River Unit 3 Application for Renewal of Operating License"
- (2) NRC Regulatory Issue Summary 2011-07, "License Renewal Submittal Information for Pressurized Water Reactor Internals Aging Management," dated July 21, 2011 (NRC Accession No. ML111990086)

Dear Sir:

On December 16, 2008, Florida Power Corporation (FPC), doing business as Progress Energy Florida, Inc. (PEF), requested renewal of the operating license for Crystal River Unit 3 (CR-3) to extend the term of its operating license an additional 20 years beyond the current expiration date (Reference 1). Reference 1 provided a list of License Renewal Commitments and included Commitments #1 and #4 that deal with Reactor Vessel Internals aging management activities. NRC Regulatory Issue Summary 2011-07 (Reference 2) provided guidance regarding the schedule for submitting reactor vessel aging management programs. Enclosure 1 to this letter provides the current list of License Renewal Commitments revised in accordance with Reference 2. Enclosure 2 provides conforming changes to the License Renewal Application (LRA). In addition, the enclosures include an editorial change to Commitment #32 to document all applicable NRC Requests for Additional Information that apply and two PEF-identified editorial changes to the LRA description of the Structures Monitoring Program.

This submittal revises License Renewal Commitments #1 and #4; however, it contains no new regulatory commitments.

If you have any questions regarding this submittal, please contact Mr. Mike Heath, Supervisor, License Renewal, at (910) 457-3487, e-mail at mike.heath@pgnmail.com.

Sipcerely, 2 Pr

Jon A. Franke Vice President Crystal River Unit 3

JAF/dwh

- Enclosures: 1. CR-3 License Renewal Commitments, Revision 6
  - 2. Amendment #24 Changes to the License Renewal Application
- xc: NRC CR-3 Project Manager NRC License Renewal Project Manager NRC Regional Administrator, Region II Senior Resident Inspector

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

#### STATE OF FLORIDA

#### **COUNTY OF CITRUS**

Jon A. Franke 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.

Jon A. Franke Vice President Crystal River Nuclear Plant

The foregoing document was acknowledged before me this <u>23</u> day of <u>asrul</u>, 2012, by Jon A. Franke.

rden Chartmann

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

**ENCLOSURE 1** 

# **CR-3 LICENSE RENEWAL COMMITMENTS, REVISION 6**

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### CR-3 LICENSE RENEWAL COMMITMENTS, REVISION 6

	CRYSTAL RIVER UNIT 3 LICENSE RENEWAL COMMITMENTS, REVISION 6					
ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE		
1	In accordance with the guidance of NUREG-1801, Rev. 1, regarding aging management of reactor vessel internals components, CR-3 will: (1) participate in the industry programs for investigating and managing aging effects on reactor internals, (2) evaluate and implement the results of the industry programs as applicable to the reactor internals, and (3) upon completion of these programs, but not later than two years after issuance of the renewed license and not later than two years before entering the period of extended operation (whichever comes first), submit an aging management program/inspection plan for reactor internals in accordance with MRP-227-A to the NRC for review and approval.	A.1.1	As stated in the commitment	Reactor Vessel Internals Aging Management Activities LRA Section A.1.1, RIS 2011-07		
2	In accordance with the guidance of NUREG-1801, Rev. 1, regarding aging management of nickel alloy and nickel-clad components susceptible to primary water stress corrosion cracking, CR-3 will comply with applicable NRC Orders and will implement applicable: (1) Bulletins and Generic Letters and (2) staff-accepted industry guidelines.	A.1.1	As stated in the commitment	Primary Water Stress Corrosion Cracking of Nickel Alloys LRA Section A.1.1		
3	The Program will be enhanced to select an alternate lubricant that is compatible with the fastener material and the contained fluid.	A.1.1.3	Prior to the period of extended operation	Reactor Head Closure Studs Program LRA Section B.2.3		
4	The Thermal Aging and Neutron Irradiation Embrittlement of Cast Austenitic Stainless Steel (CASS) Program is a new program to be implemented. Required actions that affect the aging management strategy for these components will be incorporated into the program documents in accordance with Commitment #1 above.	A.1.1.6	As stated in the commitment	Thermal Aging and Neutron Irradiation Embrittlement of Cast Austenitic Stainless Steel (CASS) Program LRA Section B.2.6 RAI B.2.6-1 RIS 2011-07		

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	CRYSTAL RIVER UNIT 3 LICENSE RENEWAL COMMITMENTS, REVISION 6				
ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE	
5	Program administrative control documents will be enhanced to include: (1) guidance for torquing and closure requirements based on the EPRI documents endorsed by NUREG-1801, (2) requirements to remove instances where molybdenum disulfide lubricant is allowed for use in bolting applications in specific procedures and to add a general prohibition against use of molybdenum disulfide lubricants for bolted connections, (3) guidance for torquing and closure requirements that include proper torquing of the bolts and checking for uniformity of gasket compression after assembly, (4) guidance for torquing and closure requirements based on the recommendations of EPRI NP-5769, "Degradation and Failure of Bolting in Nuclear Power Plants," (with exceptions noted in NUREG-1339), EPRI TR-104213, "Bolted Joint Maintenance & Applications Guide," and EPRI 5067, "Good Bolting Practices, A Reference Manual for Nuclear Power Plant Personnel," Volumes I and II, (5) a centralized procedure based on EPRI NP-5769, EPRI TR-104213, and EPRI-5067 containing guidance regarding bolted joint leak tightness and pre- installation inspections consistent with the recommendations of those documents, (6) periodic examinations of a representative sample of bolting identified as potentially having yield strength ≥150 ksi for SCC consisting of periodic in situ ultrasonic testing or, alternatively, surface examination or bolt replacement, with sample sizes based on EPRI TR-107514 methodology, (7) examination of NSSS support high strength bolting for SCC concurrent with examinations of the associated supports at least once per 10-year ISI period, and (8) acceptance standards for examination of high strength structural bolting consistent with the recommendations of EPRI NP-5769 or application specific structural analyses.	A.1.1.8	Prior to the period of extended operation	Bolting Integrity Program LRA Section B.2.8, RAI B.2.8-2, RAI B.2.8-3	

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	CRYSTAL RIVER UNIT 3 LICENSE RENEWAL COMMITMENTS, REVISION 6				
ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE	
	and Decay Heat Seawater System Pumps in a periodic inspection and/or rebuild program. This Program will be initiated during the current license period and inspect one or more pumps prior to the period of extended operation, (2) subject the Nuclear Services and Decay Heat Seawater System Discharge Conduits to inspection and evaluation subsequent to the SG replacement project, but		commitment	Water System Program LRA Section B.2.10, RAI B.2.10-1, RAI B.2.10-2, RAI B.2.10-3	
	extent of activities required during the period of extended operation to support the intended function of these components, (3) incorporate hardness/scratch testing for selective leaching into the examinations of susceptible pumps and valves and, if evidence of degradation is detected, of seawater heat exchanger tubesheet cladding, (4) incorporate Nuclear Services and Decay				
	Heat Seawater System Intake Conduit inspections for degraded or missing concrete lining. Affected areas will be monitored to assure no loss of intended function until such time as the lining can be repaired, (5) incorporate acceptance criteria into procedures for inspections for biofouling and maintenance of protective linings, and (6) establish periodic maintenance activities for Nuclear Services and Decay Heat Seawater System expansion joints prior to the period of extended operation.				

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	CRYSTAL RIVER UNIT 3 LICENSE RENEWAL COMMITMENTS, REVISION 6					
ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE		
7	Administrative controls for the Program will be enhanced to: (1) include in the Program all cranes within the scope of License Renewal, (2) require the responsible engineer to be notified of unsatisfactory crane inspection results involving loss of material, (3) specify the frequency of inspections for the cranes within the scope of License Renewal to be every refueling outage for cranes in the Reactor Building and every two years for cranes outside the Reactor Building, and (4) clarify that crane rails are to be inspected for abnormal wear and that members to be inspected for cracking include welds.	A.1.1.12	Prior to the period of extended operation	Inspection of Overhead Heavy Load and Light Load Handling Systems Program LRA Section B.2.12		
8	The Program administrative controls will be enhanced to: (1) include specific guidance for periodic inspection of fire barrier walls, ceilings, and floors including a requirement to notify Fire Protection of any deficiencies having the potential to adversely affect the fire barrier function, (2) include additional inspection criteria as described in NUREG-1801 for penetration seals, (3) include additional inspection criteria for corrosion of fire doors, (4) specify minimum qualification requirements for personnel performing visual inspections of penetrations seals and fire doors, and (5) specify inspections of fire barrier walls, ceilings, and floors on a frequency of at least once every five years.	A.1.1.13	Prior to the period of extended operation	Fire Protection Program LRA Section B.2.13, RAI B.2.13-2.1		

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	<b>CRYSTAL RIVER UNIT 3 LICENSE RENEWAL COMMITMENTS, REVISION 6</b>					
ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE		
9	The Program will be enhanced to: (1) incorporate a requirement to perform one or a combination of the following two activities: (a) Implement periodic flow testing consistent with the intent of NFPA 25, or (b) Perform wall thickness evaluations to verify piping is not impaired by pipe scale, corrosion products, or other foreign material. For sprinkler systems, this may be done by flushing, internal inspection by removing one or more sprinkler heads, or by other obstruction investigation methods, (such as technically proven ultrasonic and X-ray examination) that have been evaluated as being capable of detecting obstructions. (These inspections will be performed before the end of the current operating term. The results from the initial inspections will be used to determine inspection intervals thereafter during the period of extended operation.), (2) Perform internal inspections of system piping at representative locations as required to verify that loss of material due to corrosion has not impaired system intended function. Alternately, non-intrusive inspections (e.g., ultrasonic testing) can be used to verify piping integrity. (These inspections will be performed before the end of the current operating term. The results from the initial inspection of yard fire hydrants annually consistent with the intent of NFPA 25 to ensure timely detection of signs of degradation, such as corrosion, and (4) consistent with the intent of NFPA 25, either replace the sprinkler heads prior to reaching their 50-year service life or revise site procedures to perform field service testing, by a recognized testing laboratory, of representative samples from one or more sample areas. (Subsequent testing will be performed on a representative sample at an interval of 10 years after the initial field service testing.)	A.1.1.14	Prior to the period of extended operation	Fire Water System Program LRA Section B.2.14, RAI B.2.14-1		

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ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE	
10	The Aboveground Steel Tanks Program is a new program to be implemented.	A.1.1.15	Prior to the period of extended operation	Aboveground Steel Tanks Program LRA Section B.2.15	
11	The Program will be enhanced to: (1) adjust the inspection frequency for the Diesel-Driven Emergency Feedwater Pump Fuel Oil Storage Tank to ensure an inspection is performed prior to the period of extended operation, (2) inspect the internal surfaces of the Diesel-Driven Fire Pump Fuel Oil Storage Tanks. Based on the results of the inspection, the tanks will be cleaned and flushed as necessary. These inspections will be performed every 2 years, unless trending indicates an appropriate change in frequency is warranted, and (3) perform UT inspections of the Diesel-Driven Fire Pump Fuel Oil Storage Tanks prior to the period of extended operation, and at intervals not to exceed 10 years.	A.1.1.16	Prior to the period of extended operation	Fuel Oil Chemistry Program LRA Section B.2.16 RAI B.2.16-1.1	
12	The Program will be enhanced to: (1) ensure that neutron exposure conditions of the reactor vessel remain bounded by those used to project the effects of embrittlement to the end of the 60-year extended license period and (2) establish formalized controls for the storage of archived specimens to ensure availability for future use by maintaining the identity, traceability, and recovery of the archived specimens throughout the storage period.	A.1.1.17	Prior to the period of extended operation	Reactor Vessel Surveillance Program LRA Section B.2.17	
13	The One-Time Inspection Program is a new program to be implemented.	A.1.1.18	Prior to the period of extended operation	One-Time Inspection Program LRA Section B.2.18	
14	The Selective Leaching of Materials Program is a new program to be implemented.	A.1.1.19	Prior to the period of extended operation	Selective Leaching of Materials Program LRA Section B.2.19	

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	CRYSTAL RIVER UNIT 3 LICENSE RENEWAL COMMITMENTS, REVISION 6				
ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE	
15	The Buried Piping and Tanks Inspection Program is a new program to be implemented.	A.1.1.20	Prior to the period of extended operation	Buried Piping and Tanks Inspection Program LRA Section B.2.20	
16	Program administrative controls will be revised to incorporate periodic volumetric examinations of ASME Code Class 1 small- bore socket welds. A volumetric examination technique will be developed capable of detecting cracking in Class 1 socket welds. The total number of socket welds selected for examination will be at least 10% of the total population per inservice inspection (ISI) interval. Prior to the period of extended operation, CR-3 will perform a baseline inspection equivalent to one third of those inspections required for an interval. The regular inspection schedule is to commence in the third period of the fourth ISI interval.	A.1.1.1	Prior to the period of extended operation	ASME Section XI Inservice Inspection, Subsections IWB, IWC, and IWD Program LRA Section B.2.1, RAI B.2.21-3 RAI B.2.21-5	
17	The Program will be enhanced to: (1) incorporate measures to assure the integrity of surfaces that are inaccessible or not readily visible during both plant operations and refueling outages, and (2) incorporate inspection attributes for degradation of coatings.	A.1.1.22	Prior to the period of extended operation	External Surfaces Monitoring Program LRA Section B.2.22, RAI B.2.22-1	
18	The Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components Program is a new program to be implemented.	A.1.1.23	Prior to the period of extended operation	Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components Program LRA Section B.2.23	
19	Program administrative controls will be enhanced to (1) identify the structures that have masonry walls in the scope of License Renewal, (2) include inspection of the masonry walls in the Machine Shop in a periodic engineering activity (PMID), and 3) require periodic inspection of masonry walls every five years.	A.1.1.29	Prior to the period of extended operation	Masonry Wall Program LRA Section B.2.29 RAI 2.2-06 RAI B.2.29-1	

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CRYSTAL RIVER UNIT 3 LICENSE RENEWAL COMMITMENTS, REVISION 6				
ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE
20	Program will be enhanced by revising the administrative controls that implement the Program to: (1) identify all License Renewal structures and systems that credit the Program for aging management in the corporate procedure for condition monitoring of structures, (2) require notification of the responsible engineer when below grade concrete including concrete pipe is exposed so an inspection may be performed prior to backfilling, (3) require periodic groundwater chemistry monitoring including consideration for potential seasonal variations, (4) require periodic inspections of the water control structures, i.e., Circulating Water Intake Structure, Circulating Water Discharge Structure, Nuclear Service Sea Water Discharge Structure, Intake Canal, and Raw Water Pits, on a frequency not to exceed five years, (6) identify additional civil/structural commodities and associated inspection attributes and performance standard required for License Renewal in the corporate procedure for condition monitoring of structures, (7) identify additional inspection criteria for structural commodities in the site system walkdown checklist, (8) add inspection of corrosion to the inspection of the earth for loss of form and loss of material for the Wave Embankment Protection Structure as a periodic maintenance activity, (9) add an inspection of the earth for loss of form and loss of material for the Wave Embankment Protection Structure as a periodic maintenance activity, (10) include additional in-scope structures and specific civil/structural commodities in periodic inspection of structures on a frequency building., (12) require periodic inspection of structures on a frequency of at least once every five years, and (13) include the quantitative acceptance criteria of ACI 349.3R, Chapter 5, and (14) perform a baseline inspection using the quantitative acceptance criteria of ACI 349.3R prior to the periodi constite in the period constite in the period constite in the period consthe period consthe period constructures and period period	A.1.1.30	Prior to the period of extended operation	Structures Monitoring Program LRA Section B.2.30, RAI B.2.13-2.1 RAI B.2.30-6

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	<b>CRYSTAL RIVER UNIT 3 LICENSE RENEWAL COMMITMENTS, REVISION 6</b>					
ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE		
21	The Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program is a new program to be implemented.	A.1.1.31	Prior to the period of extended operation	Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program		
22	The Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Used in Instrumentation Circuits Program is a new program to be implemented.	A.1.1.32	Prior to the period of extended operation	Electrical Cables and Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Used in Instrumentation Circuits Program		
23	The Inaccessible Medium Voltage Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program is a new program to be implemented.	A.1.1.33	Prior to the period of extended operation	Inaccessible Medium Voltage Cables Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program LRA Section B.2.33		
24	The Metal Enclosed Bus Program is a new program to be implemented.	A.1.1.34	Prior to the period of extended operation	Metal Enclosed Bus Program		
25	The Fuse Holder Program is a new program to be implemented.	A.1.1.35	Prior to the period of extended operation	LRA Section B.2.34 Fuse Holder Program LRA Section B.2.35		

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	CRYSTAL RIVER UNIT 3 LICENSE RENEWAL COMMITMENTS, REVISION 6					
ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE		
26	The Electrical Cable Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program is a new program to be implemented.	A.1.1.36	Prior to the period of extended operation	Electrical Cable Connections Not Subject to 10 CFR 50.49 Environmental Qualification Requirements Program LRA Section B.2.36		
27	Administrative controls for the Program will be enhanced to: (1) include provisions to monitor and trend data for incorporation in test procedures to ensure the projection meets the acceptance criteria, (2) incorporate acceptance criteria tables for accumulated weight losses of monitored Carborundum samples, and (3) implement periodic Boron-10 Areal Density Gauge for Evaluating Racks (BADGER) testing or comparable neutron attenuation testing for racks in Pools A and B to ensure that the neutron absorption intended function is maintained, and that technical specification criticality requirements are continually met.	A.1.1.37	Prior to the period of extended operation	Fuel Pool Rack Neutron Absorber Monitoring Program LRA Section B.2.37, RAI 3.3.2.2.6-2, RAI B.2.37-2		
28	The High-Voltage Insulators in the 230KV Switchyard Program is a new program to be implemented.	A.1.1.38	Prior to the period of extended operation	High-Voltage Insulators in the 230KV Switchyard Program LRA Section B.2.38		

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	CRYSTAL RIVER UNIT 3 LICENSE RENEWAL COMMITMENTS, REVISION 6				
ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE	
29	Administrative controls for the Program will be revised to: (1) enhance procedures and activities credited for performance of physical inspections to reflect that inspections of components exposed to closed-cycle cooling water will be performed as made available on an opportunistic basis, (2) flag procedures and activities credited with performance monitoring of parameters in the Instrument Air and Secondary Services Closed Cycle Cooling Water Systems to assure pump and heat exchanger performance are identified as license renewal activities, and (3) flag procedures associated with closed cycle cooling water chemistry controls to identify chemistry controls associated for in-scope systems as License Renewal activities.	A.1.1.11	Prior to the period of extended operation	Closed-Cycle Cooling Water System Program LRA Section B.2.11, RAI B.2.11-1, RAI B.2.11-2	
30	Implementing procedures for the Program will be enhanced to ensure compliance with the requirements in NUREG-1801, Revision 1, Section XI.M19.	A.1.9	Prior to the period of extended operation	Steam Generator Tube Integrity Program LRA Section A.1.9 RAI B.2.9-2.1	
31	CR-3 will perform a review of design basis ASME Code Class 1 fatigue evaluations to determine whether the NUREG/CR-6260 based locations that have been evaluated for the effects of the reactor coolant environment on fatigue usage are the limiting locations for the CR-3 plant configuration. If more limiting locations are identified, the most limiting location will be evaluated for the effects of the reactor coolant environment on fatigue usage. If any of the limiting locations consist of nickel alloy, NUREG/CR-6909 methodology for nickel alloy will be used in the evaluation.	A.1.2.2.10	Prior to the period of extended operation	Environmentally - Assisted Fatigue Review RAI 4.3.3-6	

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	<b>CRYSTAL RIVER UNIT 3 LICENSE RENEWAL COMMITMENTS, REVISION 6</b>					
ITEM NO.	COMMITMENT	FINAL SAFETY ANALYSIS REPORT (FSAR) SUPPLEMENT LOCATION	PROGRAM IMPLEMENTATION SCHEDULE	LICENSE RENEWAL APPLICATION (LRA) SOURCE		
32	CR-3 will develop and submit a plant-specific Concrete Containment Tendon Prestress aging management program (AMP) to address plant operating experience from the concrete delaminations; include any revised Minimum Required Values and plans and schedules for revising the plant-specific program basis and implementation documents; include details for collecting surveillance data, performing the regression analyses and log- linear trend plots, and a schedule for performing the tendon surveillances; provide a discussion of tendon surveillances, including re-stressed tendons and any remaining undisturbed tendons; and provide a discussion of tendon surveillances, including use of common tendons during the period of extended operation. The AMP will follow the criteria of NUREG-1800, Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants, Revision 2, and will ensure aging effects are adequately managed during the period of extended operation.	A.1.1.41	At least one year prior to the period of extended operation	Concrete Containment Tendon Prestress Program RAI B.3.3-1 RAI B.3.3-2, RAI B.3.3-3, RAI B.3.3-4		

**PROGRESS ENERGY FLORIDA, INC.** 

# **CRYSTAL RIVER UNIT 3**

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

**ENCLOSURE 2** 

# AMENDMENT #24 CHANGES TO THE LICENSE RENEWAL APPLICATION

#### AMENDMENT #24 CHANGES TO THE LICENSE RENEWAL APPLICATION

Source of Change	License Renewal Application (LRA) Amendment 24 Changes
NRC	Revise the third paragraph of Subsection A.1.1 on LRA Page A-5 to read:
Regulatory Information Summary 2011-07	In accordance with the guidance of NUREG-1801, "Generic Aging Lessons Learned (GALL)," Rev. 1, U.S. Nuclear Regulatory Commission, September 2005, regarding aging management of reactor vessel internals components for aging mechanisms, such as embrittlement and void swelling, CR-3 will: (1) participate in the industry programs for investigating and managing aging effects on reactor internals, (2) evaluate and implement the results of the industry programs as applicable to the reactor internals, and (3) upon completion of these programs, but not later than two years after issuance of the renewed license and not later than two years before entering the period of extended operation (whichever comes first), submit an aging management program/inspection plan for reactor internals in accordance with MRP-227-A to the NRC for review and approval.
	Revise Subsection A.1.1.6, previously revised by PEF Letter to the NRC 3F1009-07, dated October 13, 2009, on LRA Page A-7 to read:
	The Thermal Aging and Neutron Irradiation Embrittlement of Cast Austenitic Stainless Steel (CASS) Program is a new program that will manage loss of fracture toughness due to thermal aging and/or neutron irradiation embrittlement of CASS reactor vessel internals. Required actions that affect the aging management strategy for these components will be incorporated into the program documents in accordance with the reactor vessel internals aging management commitment in Subsection A.1.1 above. The Program will effectively manage the aging effect to prevent loss of intended function.
PEF- Identified	Make the following editorial corrections to Subsection A.1.1.30 on LRA Page A-16 for the Structures Monitoring Program:
Changes	<ul> <li>Revise the second sentence to replace report number "NEI 93-01" with "NUMARC 93-01". The title of the report remains unchanged.</li> </ul>
	<ul> <li>Revise the title of report NEI 96-03 in the last sentence on page A-16 to read: "Guidelines for Monitoring the Condition of Structures at Nuclear Power Plants". (In other words, add the word "Power" to the title of the report.)</li> </ul>
NRC Regulatory Information Summary	Revise the third and fourth sentences of the first paragraph of Program Description in Subsection B.2.6, on LRA Page B-26, previously revised by PEF Letter to the NRC 3F1009-07, dated October 13, 2009, to read:
2011-07	The augmented inspections for the CASS reactor vessel internals components will conform to the guidance of MRP-227-A, "Pressurized Water Reactor Internals Inspection and Evaluation Guidelines," and required actions that affect the aging management strategy for these components will be incorporated into the program documents in accordance with the License Renewal commitments regarding reactor vessel internals aging management.

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Source of Change	License Renewal Application (LRA) Amendment 24 Changes
PEF- Identified Editorial	Make the following editorial corrections on LRA Page B-89 for the Structures Monitoring Program:
Changes	Revise the second sentence of the Program Description to change the report number for "Nuclear Energy Institute (NEI) 93-01" to "NUMARC 93-01".
	<ul> <li>Revise the title of report NEI 96-03 in the third sentence of the Program Description to read: "Guidelines for Monitoring the Condition of Structures at Nuclear Power Plants". (In other words, add the word "Power" to the title of the report.)</li> </ul>

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