



# Progress Energy

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

Ref: 10 CFR 50.90

January 19, 2012  
3F0112-10

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

Subject: Crystal River Unit 3 – License Amendment Request #311, Revision 1,  
Emergency Feedwater Pump Fuel Oil Volume (TAC No. ME5747)

- References:
1. FPC to NRC letter, 3F0211-01, dated February 25, 2011, "License Amendment Request #311, Revision 0, Emergency Feedwater Pump Fuel Oil Volume" (Accession No. ML110600407)
  2. FPC to NRC letter, 3F1198-01, dated November 24, 1998, "License Amendment Request #240, Revision 0, Addition of Safety-Related Diesel-Driven Emergency Feedwater Pump"
  3. NRC to FPC letter, 3N0899-05, dated August 11, 1999, "Crystal River Unit 3 Issuance of Amendment Regarding Addition of a Safety-Related Diesel-Driven Emergency Feedwater Pump" (TAC No. MA3613)

Dear Sir:

Florida Power Corporation (FPC), doing business as Progress Energy Florida, Inc., in accordance with 10 CFR 50.90, hereby submits License Amendment Request (LAR) #311, Revision 1. The proposed LAR will revise the Crystal River Unit 3 (CR-3) Improved Technical Specifications (ITS) 3.7.19, Condition A and ITS Surveillance Requirement (SR) 3.7.19.1, in order to increase the ITS minimum required stored diesel fuel for the Diesel Driven Emergency Feedwater (DD-EFW) pump (EFP-3) in the fuel oil storage tank (DFT-4). In Reference 2, FPC requested an ITS Condition and a Surveillance Requirement that specified a required fuel oil volume for the safety-related diesel-driven emergency feedwater pump (EFP-3). These parameters were added to the CR-3 ITS by Amendment 182 (Reference 3). The proposed revision to ITS 3.7.19, Condition A and SR 3.7.19.1, DFT-4 levels are the result of a revised tank sizing calculation that was performed to support Revision 0 of LAR #311 (Reference 1).

This submittal replaces Reference 1, LAR #311, Revision 0, in its entirety. LAR #311, Revision 1, includes a change to clarify DFT-4 as the fuel oil storage tank in the ITS 3.7.19, Condition A description. This revision does not impact the No Significant Hazards Consideration Evaluation previously performed for LAR 311, Revision 0 (Reference 1).

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

A001  
HRR

Currently, the operating fuel tank volume is being administratively controlled under the provisions of NRC Administrative Letter 98-10, "Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety," since the current ITS 3.7.19, Condition A and SR 3.7.19.1 were determined to be non-conservative.

FPC requests approval of this LAR by February 25, 2012, with a 60 day implementation period. This time frame is required in order to update plant documents and procedures.

Regulatory commitments identified in this LAR are captured in Attachment E.

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

If you have any questions regarding this submittal, please contact Mr. Dan Westcott, Superintendent, Licensing and Regulatory Programs at (352) 563-4796.

Sincerely,



Jon A. Franke  
Vice President  
Crystal River Nuclear Plant

JAF/par

- Attachments:
- A. Description of the Proposed Change, Background, Justification for the Request, Determination of No Significant Hazards Consideration, and the Environmental Assessment
  - B. Proposed Technical Specification Page Changes, Strikeout and Shadowed Text Format
  - C. Proposed Technical Specification Page Changes, Revision Bar Format
  - D. Proposed Revised Bases Page (For Information Only), Strikeout and Shadowed Text Format
  - E. List of Regulatory Commitments

xc: NRR Project Manager  
Regional Administrator, Region II  
Senior Resident Inspector  
State Contact

**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 19 day of January, 2012, by Jon A. Franke.



Signature of Notary Public  
State of Florida



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

Personally Known ✓ -OR- Produced Identification

**FLORIDA POWER CORPORATION**

**CRYSTAL RIVER UNIT 3**

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

**LICENSE AMENDMENT REQUEST #311, REVISION 1**

**ATTACHMENT A**

**DESCRIPTION OF THE PROPOSED CHANGE,  
BACKGROUND, JUSTIFICATION FOR THE REQUEST,  
DETERMINATION OF NO SIGNIFICANT HAZARDS  
CONSIDERATIONS, AND THE  
ENVIRONMENTAL ASSESSMENT**

**DESCRIPTION OF THE PROPOSED CHANGE  
BACKGROUND, JUSTIFICATION FOR THE REQUEST, DETERMINATION OF NO  
SIGNIFICANT HAZARDS CONSIDERATION, AND THE ENVIRONMENTAL  
ASSESSMENT**

**1.0 DESCRIPTION OF PROPOSED CHANGE**

The proposed change would revise the Crystal River Unit 3 (CR-3) Improved Technical Specifications (ITS) 3.7.19, Condition A and the associated Surveillance Requirement (SR) 3.7.19.1.

**ITS 3.7.19, Condition A**

The volume in the Diesel Driven Emergency Feedwater (DD-EFW) pump (EFP-3) fuel oil storage tank (DFT-4) will be increased by 100 gallons (gal). This will change the value for the required Condition A action to restore fuel oil levels as follows:

Current: DD-EFW Pump fuel oil supply tank level < 9,480 gal and > 8,335 gal in the storage tank.

Proposed: DD-EFW Pump fuel oil storage tank level < 9,580 gal and > 8,435 gal.

**SR 3.7.19.1**

The minimum volume of the tank level will be increased by 100 gallons to match the change of the higher level for ITS 3.7.19, Condition A, as shown above. This will change the SR values for the required surveillance of fuel oil levels as follows:

Current: Verify DD-EFW Pump fuel oil storage tank contains  $\geq 9,480$  gal of fuel

Proposed: Verify DD-EFW Pump fuel oil storage tank contains  $\geq 9,580$  gal of fuel

The Bases for ITS 3.7.19, Condition A, will also be revised and is provided, for Information Only, in Attachment D.

**2.0 BACKGROUND**

The Emergency Feedwater (EFW) System includes one Diesel Driven Emergency Feedwater (DD-EFW) Pump (EFP-3) and one steam turbine driven EFW pump (EFP-2). EFP-3 was installed to functionally replace the existing motor driven Emergency Feedwater Pump (EFP-1), and EFP-1 is maintained for defense in depth. These pumps operate when the normal feedwater pumps supplying water to the secondary side of the steam generators are unavailable.

The purpose of CR-3 calculation M98-0118, "CR-3 Diesel Driven EFP-3 Fuel Tank Size and Shape Calculation," is to calculate the fuel oil storage tank (DFT-4) size for EFP-3. This includes determining the fuel volume needed for seven days of continuous engine operation. The calculation uses seven days of engine operation for the 10 CFR 50, Appendix K, decay heat removal assumptions. The necessary fuel supply includes fuel allowance for in-service testing, unusable tank volume, fuel necessary for Reactor Coolant System cooldown to the decay heat removal cut-in pressure / temperature, and level indicating instrumentation error allowance.

During 2010, the Nuclear Regulatory Commission (NRC) conducted a Component Design Bases Inspection at CR-3. NRC Inspection Report 05000302/2010007, dated September 28, 2010 (ADAMS Accession No. ML102730597), notes that EFP-3 and DFT-4 were evaluated. During the inspection, the assumptions were questioned for the vortex allowance at the connection to the fuel tank and the values used in determining the unusable volume at the bottom of the tank that were used in calculation M98-0118, Revision 2.

Proper limits should have been incorporated into the CR-3 ITS and SR used to verify operability of EFP-3. A thorough engineering review determined that this condition was non-conservative.

### **3.0 JUSTIFICATION FOR THE REQUEST**

CR-3 ITS 3.7.19, Condition A and the associated SR needs to be revised to ensure that EFP-3 will be able to perform its safety function / mission time. CR-3 has determined that the values in the CR-3 ITS and SR are non-conservative. The existing ITS 3.7.19, Condition A identifies if the DFT-4 level is less than 9,480 gallons, the tank level will need to be restored to within limits within 48 hours. SR 3.7.19.1 requires this volume be verified on a surveillance frequency of 31 days.

Calculation M98-0118, Revision 2, used for the current technical specification information, assumed that the unusable volume at the bottom of the tank was 5 percent which equated to 690 gallons. This assumption did not consider the minimum required height to prevent vortex ingestion at the DFT-4 diesel supply line connection. When this is considered, the unusable volume at the bottom of the tank is approximately 793 gallons; about 103 gallons greater than that assumed in M98-0118, Revision 2. The calculation was revised after it was determined that the assumptions that were used were non-conservative.

The current calculation, M98-0118, Revision 3, has addressed the non-conservative assumptions for the unusable volume at the bottom of the tank. The calculation uses a required submergence level to preclude vortex ingestion which is 0.141 feet or 1.7 inches. This value was referenced from calculation M98-0115, "Diesel Driven Emergency Feedwater Pump (DDEFWP) Fuel Pressure," and was also performed in conjunction with the DD-EFW pump modification. Based on the required submergence level, the minimum unusable tank level to prevent vortex ingestion is:

Suction Intake: 5 inches  $\pm$  1/8 inches above tank bottom

Suction Line Diameter: 1.5 inches

5 inches + 1/8 inches + (1.5/2) inches + 1.7 inches = 7.575 inches

The unusable volume at a tank level of 7.575 inches equates to a volume of 793 gallons.

M98-0118, Revision 2, calculated the capacity for 7-day operation equal to a total of 9,440 gallons. From this, 9,480 gallons was designated for the current technical specification information. This difference represented a 40 gallon calculation margin.

The current calculation, M98-0118, Revision 3, calculated the capacity for 7-day operation equal to a total of 9,553 gallons. From this, 9,580 gallons is designated for the proposed License Amendment Request (LAR). This difference represents a 27 gallon calculation margin.

The change in the calculated capacity for 7-day operation increased from 9,440 gallons to 9,553 gallons which represent a 113 gallon increase. The 113 gallon increase was determined from a 103 gallon increase in the unusable volume at the bottom of the tank, after adjustments for a corrected vortex allowance, and a 10 gallon change for the new once through steam generators that increased the cooldown fuel. The 100 gallon increase being requested by this LAR and the 13 gallon decrease in calculation margin ( $40 - 27 = 13$ ) corresponds to the 113 gallon increase in the calculated capacity for 7-day operation.

The 6-day values have a similar change and both the 7-day and 6-day values are noted in the table below.

Document	7-day value (gallons)	6-day value (gallons)
M98-0118, Revision 2	9,440	8,280
ITS 3.7.19, Condition A (current)	9,480	8,335
M98-0118, Revision 3	9,553	8,393
ITS 3.7.19, Condition A (proposed)	9,580	8,435

The current calculation, M98-0118, Revision 3, removes the non-conservative assumptions.

Administrative controls have been established for the DFT-4 fuel oil storage tank level following NRC Administrative Letter (AL) 98-10, "Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety," and NRC Inspection Manual (IM), Part 9900, Technical Guidance, "Operability Determinations & Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety." The NRC issued Regulatory Issue Summary 2005-20 to inform licensees that the NRC had revised IM Part 9900, and superseded Generic Letter 91-18, "Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability."

NRC AL 98-10 states that the discovery of an inadequate technical specification value is considered a degraded condition and indicates that administrative controls are an acceptable short term corrective action, along with a license amendment request submittal, to resolve the condition in a timely manner. Administrative controls have been established at CR-3 for the DFT-4 fuel oil storage tank level. Plant procedures have been revised to include a conservative value for fuel oil volume in DFT-4. This LAR requests that more restrictive values be incorporated into the CR-3 ITS and SR.

### **3.1 Conclusion**

CR-3 has determined that a non-conservative condition existed in calculation M98-0118, Revision 2, in the assumptions used to establish the DD-EFW Pump (EFP-3) fuel oil storage tank (DFT-4) ITS and SR values. The proposed LAR changes to the CR-3 ITS and SR are more restrictive and will correct the non-conservative values to ensure that the EFW System will be able to perform its safety function.

Administrative controls have been incorporated into CR-3 procedures to compensate for the non-conservative assumptions. These administrative controls will be maintained until the license amendment is implemented. This will ensure that the DD-EFW pump remains operable and maintains the initial conditions for the accident analyses assumption.

#### **4.0 NO SIGNIFICANT HAZARDS CONSIDERATION**

Florida Power Corporation (FPC) has evaluated the proposed License Amendment Request (LAR) against the criteria of 10 CFR 50.92(c) to determine if any significant hazards consideration is involved. FPC has concluded that this proposed LAR does not involve a significant hazards consideration. The following is a discussion of how each of the 10 CFR 50.92(c) criteria are satisfied.

- (1) *Does not involve a significant increase in the probability or consequences of an accident previously evaluated.*

The LAR proposes to revise the Diesel Driven Emergency Feedwater (DD-EFW) pump (EFP-3) fuel oil storage tank (DFT-4) action condition and surveillance values to ensure that the EFW pump will remain capable of performing the design function of operating continuously for up to seven days. The proposed amendment provides the same functional requirement as previously approved.

The consequences of an accident refer to the impact on both plant personnel and the public from any radiological release associated with the accident. The Emergency Feedwater (EFW) System removes decay heat to prevent a radiological release. A more conservative action condition and surveillance value restores design margin and provides assurance that the equipment supplied by the EFW System will operate correctly and within the assumed timeframe to perform their mitigating functions. The administrative controls that have been established are an acceptable short term correction along with this LAR. The EFW System is used for accident mitigation and is not an initiator of design basis accidents. Therefore, the probability of previously analyzed events is not affected by this change. No capability or design functions of EFP-3 or the EFW System will change. The initial conditions for accidents that require EFW and accident mitigation capability of the EFW System will remain unchanged.

EFP-3 and DFT-4 are mitigating components and are not initiators for any analyzed accident. Therefore, the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

- (2) *Does not create the possibility of a new or different kind of accident from any accident previously evaluated.*

The proposed Improved Technical Specifications (ITS) Condition will ensure equipment is restored to an operable status in accordance with previously approved timeframes and functional levels. The proposed Surveillance Requirement (SR) will ensure the same functional requirement as the previously approved SR. The more conservative DFT-4 tank level values will provide additional assurance that the EFP-3 can provide the seven day operation that is required.



No new plant configurations or conditions are created by the proposed ITS Condition or SR. Therefore, the proposed amendment cannot create the possibility of a new or different kind of accident from any accident previously evaluated.

(3) *Does not involve a significant reduction in a margin of safety.*

The proposed ITS Condition and SR ensure adequate fuel oil inventory is available to operate EFP-3 for seven days. The proposed changes replace the calculated fuel oil inventory values with a more conservative value. The proposed SR ensures the same functional requirement for a seven day supply of fuel oil for EFP-3 as was previously approved. Similarly, the proposed ITS Condition ensures the same functional level as currently approved by requiring that a reduced fuel oil inventory of less than seven days, but more than six days, is restored to the seven day level within 48 hours. Based on the above, the proposed LAR meets the same intent as the currently approved specifications.

The proposed CR-3 ITS and SR, revising the values for DFT-4 fuel storage, will ensure that the EFW System will be able to perform all design functions assumed in the accident analyses. Administrative limits are in place to ensure these parameters remain within analyzed limits.

As such, the proposed change does not involve a significant reduction in a margin of safety.

## **5.0 ENVIRONMENTAL IMPACT EVALUATION**

10 CFR 51.22(c)(9) provides criteria for and identification of licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. A proposed amendment to an operating license for a facility requires no environmental assessment if the amendment changes a requirement with respect to use of a facility component within the restricted area provided that (i) the amendment involves no significant hazards consideration, (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite, and (iii) there is no significant increase in individual or cumulative occupational radiation exposure.

Florida Power Corporation (FPC) has reviewed this License Amendment Request (LAR) and has determined that it meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22, no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of the proposed license amendment. The following is the basis for this determination:

- (i) The proposed license amendment does not involve a significant hazards consideration, as described in the significant hazards evaluation.
- (ii) As discussed in the Justification for the Request and the No Significant Hazards Consideration, this change does not result in a significant change or significant increase in the release associated with any Design Basis Accident. There will be no significant change in the types or a significant increase in the amounts of any effluents released offsite during normal operation. There will be no significant change in the types or

increase in the amounts of any effluents that may be released off-site and does not involve irreversible environmental consequences beyond those already associated with the Final Environmental Statement.

- (iii) The proposed license amendment does not result in a significant increase to the individual or cumulative occupational radiation exposure because this is a change to plant equipment that does not interface with radiologically contaminated systems and does not require operator or other actions that could increase occupational radiation exposure. Therefore, the proposed LAR does not result in a significant increase to the individual or cumulative occupational radiation exposure.

## **6.0 APPLICABLE REGULATORY REQUIREMENTS/CRITERIA**

The Principal Architectural and Design Criteria (PADC) discussed in the Crystal River Unit 3 Final Safety Analysis Report (FSAR), Section 1.4, notes the following, "Crystal River Unit 3 (CR3) has been designed and constructed taking into consideration the proposed 10 CFR 50.34 Appendix A, "General Design Criteria for Nuclear Power Plant Construction Permits" as published in the Federal Register (32FR10213) on July 11, 1967 which are applicable to this unit."

On September 18, 1992, the NRC published SECY-92-223, "Resolution of Deviations Identified During the Systematic Evaluation Program (SEP)," which established the NRC's position regarding the applicability of the 10 CFR 50, Appendix A General Design Criteria (GDC). SECY-92-223 stated that the NRC would not apply the GDC to plants with construction permits issued prior to May 21, 1971. Furthermore, SECY-92-223 went on to state that plants with construction permits issued prior to May 21, 1971 did not need exemptions from the GDC. Since the CR-3 construction permit is dated September 25, 1968, the SECY-92-223 position is applicable to CR-3.

The CR-3 FSAR, Section 1.4, Criterion 44 – Emergency Core Cooling Systems Capability (Category A), identifies the emergency feedwater system and states the following:

"At least two emergency core cooling systems, preferably of different design principles, each with a capability for accomplishing abundant emergency core cooling, shall be provided. Each emergency core cooling system and the core shall be designed to prevent fuel and clad damage that would interfere with the emergency core cooling function and to limit the clad metal-water reaction to negligible amounts for all sizes of breaks in the reactor coolant pressure boundary, including the double-ended rupture of the largest pipe. The performance of each emergency core cooling system shall be evaluated conservatively in each area of uncertainty. The systems shall not share active components and shall not share other features or components unless it can be demonstrated that: (a) the capability of the shared feature or component to perform its required function can be readily ascertained during reactor operation, (b) failure of the shared feature or component does not initiate a loss-of-coolant accident, and (c) capability of the shared feature or component to perform its required function is not impaired by the effects of a loss-of-coolant accident and is not lost during the entire period this function is required following the accident."

The Emergency Feedwater (EFW) System maintains primary-to-secondary cooling for certain Small Break Loss of Coolant Accidents to prevent clad melting. There are redundant safety related EFW pumps, each using a different motive force to ensure availability of secondary cooling flow.

This License Amendment Request does not interfere with the ability of the EFW System to perform its design function. The proposed DFT-4 action condition and surveillance values will ensure the EFW pump will remain capable of performing the design function of operating continuously for up to seven days.

10 CFR 50.36, "Technical specifications," paragraph (c)(3), "Surveillance requirements," specifies that, "Surveillance requirements are requirements relating to test, calibration, or inspection to assure the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met."

The proposed revision to the CR-3 ITS Condition and SR values for fuel stored in DFT-4 is not in conflict with the 10 CFR 50.36 requirements. The proposed changes do not adversely impact the ability of the EFW System to function as designed and do not impact conformance to the applicable PADCC. Therefore, the proposed changes are consistent with all applicable regulatory requirements and criteria.

Administrative controls have been established for the DFT-4 fuel oil storage tank level following NRC Administrative Letter 98-10, "Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety," and NRC Inspection Manual (IM), Part 9900, Technical Guidance, "Operability Determinations & Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety." The NRC issued Regulatory Issue Summary 2005-20 to inform licensees that the NRC has revised IM Part 9900, and superseded Generic Letter 91-18, "Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability."

Based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the approval of the proposed change will not be inimical to the common defense and security or to the health and safety of the public.

**FLORIDA POWER CORPORATION**

**CRYSTAL RIVER UNIT 3**

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

**LICENSE AMENDMENT REQUEST #311, REVISION 1**

**ATTACHMENT B**

**PROPOSED TECHNICAL SPECIFICATION PAGE CHANGES**

**STRIKEOUT AND SHADOWED TEXT FORMAT**

*Diesel Driven EFW Pump Fuel Oil, Lube Oil and Starting Air*  
3.7.19

3.7 PLANT SYSTEMS

3.7.19 Diesel Driven EFW (DD-EFW) Pump Fuel Oil, Lube Oil and Starting Air

LC0 3.7.19 The stored diesel fuel oil, lube oil, and starting air subsystems shall be within limits for the DD-EFW Pump.

APPLICABILITY: When the associated DD-EFW Pump is required to be OPERABLE.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. DD-EFW Pump fuel oil supply storage tank level < 9,480 9,580 gal and > 8,335 8,435 gal in the storage tank.	A.1 Restore fuel oil level to within limits.	48 hours
B. With stored DD-EFW Pump diesel lube oil inventory < 207 gal and > 178 gal.	B.1 Restore stored lube oil inventory to within limits.	48 hours
C. DD-EFW Pump with stored fuel oil total particulates not within limits.	C.1 Restore fuel oil total particulates to within limits.	7 days
D. DD-EFW Pump with new fuel oil properties not within limits.	D.1 Restore stored fuel oil properties to within limits.	30 days
E. DD-EFW Pump with starting air receiver pressure < 177 psig and > 150 psig.	E.1 Restore starting air receiver pressure to within limits.	48 hours

(continued)

*Diesel Driven EFW Pump Fuel Oil, Lube Oil and Starting Air*  
3.7.19

*ACTIONS (continued)*

<i>CONDITION</i>	<i>REQUIRED ACTION</i>	<i>COMPLETION TIME</i>
<p><i>F. Required ACTION and associated Completion Time not met.</i></p> <p><u><i>OR</i></u></p> <p><i>For DD-EFW Pump fuel oil, lube oil or starting air subsystems not within limits for reasons other than Conditions A, B, C, D or E.</i></p>	<p><i>F.1 Declare DD-EFW Pump inoperable.</i></p>	<p><i>Immediately</i></p>

*SURVEILLANCE REQUIREMENTS*

<i>SURVEILLANCE</i>	<i>FREQUENCY</i>
<p><i>SR 3.7.19.1 Verify DD-EFW Pump fuel oil storage tank contains <math>\geq 9,480</math> <del>9,580</del> gal of fuel.</i></p>	<p><i>31 days</i></p>
<p><i>SR 3.7.19.2 Verify DD-EFW Pump stored lube oil inventory is <math>\geq 207</math> gal.</i></p>	<p><i>31 days</i></p>
<p><i>SR 3.7.19.3 Verify DD-EFW Pump fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of the Diesel Fuel Oil Testing program.</i></p>	<p><i>In accordance with the Diesel Fuel Oil Testing Program</i></p>
<p><i>SR 3.7.19.4 Verify DD-EFW Pump starting air receiver pressure is <math>\geq 177</math> psig.</i></p>	<p><i>31 days</i></p>

**FLORIDA POWER CORPORATION  
CRYSTAL RIVER UNIT 3**

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

**LICENSE AMENDMENT REQUEST #311, REVISION 1**

**ATTACHMENT C**

**PROPOSED TECHNICAL SPECIFICATION PAGE CHANGES  
REVISION BAR FORMAT**

### 3.7 PLANT SYSTEMS

#### 3.7.19 Diesel Driven EFW (DD-EFW) Pump Fuel Oil, Lube Oil and Starting Air

LC0 3.7.19      *The stored diesel fuel oil, lube oil, and starting air subsystems shall be within limits for the DD-EFW Pump.*

APPLICABILITY:    *When the associated DD-EFW Pump is required to be OPERABLE.*

#### ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. DD-EFW Pump fuel oil storage tank level < 9,580 gal and > 8,435 gal.	A.1 Restore fuel oil level to within limits.	48 hours
B. With stored DD-EFW Pump diesel lube oil inventory < 207 gal and > 178 gal.	B.1 Restore stored lube oil inventory to within limits.	48 hours
C. DD-EFW Pump with stored fuel oil total particulates not within limits.	C.1 Restore fuel oil total particulates to within limits.	7 days
D. DD-EFW Pump with new fuel oil properties not within limits.	D.1 Restore stored fuel oil properties to within limits.	30 days
E. DD-EFW Pump with starting air receiver pressure < 177 psig and > 150 psig.	E.1 Restore starting air receiver pressure to within limits.	48 hours

*(continued)*



**ACTIONS (continued)**

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p><i>F. Required ACTION and associated Completion Time not met.</i></p> <p><u>OR</u></p> <p><i>For DD-EFW Pump fuel oil, lube oil or starting air subsystems not within limits for reasons other than Conditions A, B, C, D or E.</i></p>	<p><i>F.1 Declare DD-EFW Pump inoperable.</i></p>	<p><i>Immediately</i></p>

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE	FREQUENCY
<p><i>SR 3.7.19.1 Verify DD-EFW Pump fuel oil storage tank contains <math>\geq 9,580</math> gal of fuel.</i></p>	<p><i>31 days</i></p>
<p><i>SR 3.7.19.2 Verify DD-EFW Pump stored lube oil inventory is <math>\geq 207</math> gal.</i></p>	<p><i>31 days</i></p>
<p><i>SR 3.7.19.3 Verify DD-EFW Pump fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of the Diesel Fuel Oil Testing program.</i></p>	<p><i>In accordance with the Diesel Fuel Oil Testing Program</i></p>
<p><i>SR 3.7.19.4 Verify DD-EFW Pump starting air receiver pressure is <math>\geq 177</math> psig.</i></p>	<p><i>31 days</i></p>

**FLORIDA POWER CORPORATION**

**CRYSTAL RIVER UNIT 3**

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

**LICENSE AMENDMENT REQUEST #311, REVISION 1**

**ATTACHMENT D**

**PROPOSED REVISED BASES PAGE  
(FOR INFORMATION ONLY)**

**STRIKEOUT AND SHADOWED TEXT FORMAT**

BASES

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LCO  
(continued) inventory supports the availability of the DD-EFW Pump to fulfill its mission of supplying EFW flow to one or both steam generators. The DD-EFW pump is required to provide emergency feedwater to one or two steam generators under the EFIC flow control scheme for an anticipated operational occurrence (A00) or a postulated DBA with loss of offsite power.

The starting air system is required to have a minimum capacity for six successive engine start attempts without recharging the air start receivers. As such, the air start compressors are not addressed as a part of this (or any other) LCO.

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APPLICABILITY Emergency feedwater flow is required during a Small Break LOCA or loss of main feedwater in order to cool and depressurize one or both generators which supports the reactor shut down and maintains it in a safe shutdown condition after an A00 or a postulated DBA. Since stored diesel fuel oil, lube oil, and the starting air subsystem support DD-EFW Pump OPERABILITY, these features are required to be within limits whenever the DD-EFW pump is required to be OPERABLE.

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ACTIONS

A.1

With total fuel oil volume in the supply storage tank < 9,480 9,580 gallons and > 8,335 8,435 gallons, there is enough fuel oil available to operate the DD-EFW pump for 6 days. However, the Condition is restricted to fuel oil level reductions that maintain at least a combined 6 day supply. In this Condition, a period of 48 hours is allowed prior to declaring the associated DD-EFW Pump inoperable.

The 48 hour Completion Time allows sufficient time for obtaining the requisite replacement volume and performing the analyses required prior to addition of fuel oil to the tank. This period is acceptable based on the remaining capacity (> 6 days), the actions that will be initiated to obtain replenishment, and the low probability of an event occurring during this brief period.

(continued)

**FLORIDA POWER CORPORATION  
CRYSTAL RIVER UNIT 3**

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

**LICENSE AMENDMENT REQUEST #311, REVISION 1**

**ATTACHMENT E**

**LIST OF REGULATORY COMMITMENTS**

### **List of 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 notify the Superintendent, Licensing and Regulatory Programs of any questions regarding this document or any associated regulatory commitments.

<b>Regulatory Commitment</b>	<b>Due date/event</b>
Proposed Technical Specification limits for the DFT-4 fuel oil storage tank level will be administratively maintained until the license amendment is implemented.	Procedures are in place and will be maintained until the license amendment is implemented.