

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

Ref: 10 CFR 50.90

March 20, 2003 3F0303-03

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

- Subject: Crystal River Unit 3 Response to Request for Additional Information and Revision 1 to Proposed License Amendment Request #257, "Emergency Diesel Generator Allowed Outage Time Extension" (TAC No. MB5616)
- References: 1. FPC to NRC letter, dated July 3, 2002, Crystal River Unit 3 License Amendment Request #257, Revision 0, "Emergency Diesel Generator Allowed Outage Time Extension"
 - 2. NRC to FPC letter, dated August 22, 2002, Request for Additional Information, Proposed License Amendment Request, Emergency Diesel Generator Allowed Outage Time Extension (TAC No. MB5616)
 - PEF to NRC letter, dated January 10, 2003, Crystal River Unit 3 Response to Request for Additional Information, Proposed License Amendment Request, "Emergency Diesel Generator Allowed Outage Time Extension" (TAC No. MB5616)

Dear Sir:

In Reference 3 above, Progress Energy Florida, Inc. (PEF) provided responses to the NRC staff questions (Reference 2) concerning License Amendment Request #257 (Reference 1). One outstanding issue was the capability to provide a source of alternate AC power during Emergency Diesel Generator (EDG) maintenance. Crystal River Unit 3 (CR-3) will install alternate AC capability and a description of the method for providing this capability is included in Attachment 1 to this letter.

In addition to providing information regarding the alternate AC source, this letter requests a revision to License Amendment Request (LAR) #257. The initial revision of this LAR (Reference 1) did not incorporate the alternate AC capability. The revised LAR addresses that the extended allowed outage time may be utilized only when the alternate AC source is available. The alternate AC capability will provide additional defense in depth during online EDG maintenance activities and at other times when it is available. The revised amendment also requests a one-time per train exception to the requirement to have alternate AC power

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available so that EDG maintenance may be performed online during the next fuel cycle. The Improved Technical Specification (ITS) Bases are also revised to incorporate the alternate AC source and to clarify one commitment made in Reference 1. The ITS and ITS Bases pages in Attachments B, C, and D replace the pages of the same number in Reference 1. The remaining ITS and ITS Bases pages in Reference 1 are unchanged by this revision. This revision does not change the justification, no significant hazards consideration determination or environmental evaluation presented in Reference 1.

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

New regulatory commitments are listed in Attachment E. These commitments are in addition to those made in Reference 1.

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

Sincerely,

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Dale & young

Dale E. Young Vice President Crystal River Nuclear Plant

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Attachment A: Description and Assessment

Attachment B: Proposed Revised ITS Pages - Strikeout Version

Attachment C: Proposed Revised ITS Pages - Revision Line Version

Attachment D: Revised ITS Bases Pages- Revision Line Version

Attachment E: List of Regulatory Commitments

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

STATE OF FLORIDA

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COUNTY OF CITRUS

Dale E. Young states that he is the Vice President, Crystal River Nuclear Plant for 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.

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Dale E. Young Vice President Crystal River Nuclear Plant

The foregoing document was acknowledged before me this <u>20th</u> day of <u>March</u>, 2003, by Dale E. Young.

Turt Shrreder

Signature of Notary Public

State of Flori JANET SCHROEDER MY COMMISSION # DD 128063 EXPIRES June 20, 2006 Bonded Thru Notary Public Underwriters

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

Personally Produced Known _____ -OR- Identification _____

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PROGRESS ENERGY FLORIDA, INC.

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CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72

ATTACHMENT A

LICENSE AMENDMENT REQUEST #257, REVISION 1 Emergency Diesel Generator Allowed Outage Time Extension

Description and Assessment

Attachment A Page 1 of 6

DESCRIPTION AND ASSESSMENT

1.0 INTRODUCTION AND RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

The purpose of this submittal is to provide a response to a request for additional information (RAI), specifically, question 1 in NRC letter dated August 22, 2002, and to revise several Improved Technical Specifications (ITS) that were proposed in License Amendment Request (LAR) #257, Revision 0, dated July 3, 2002.

NRC Request:

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The NRC requested information on what method of alternate AC power would be made to ensure defense in depth was maintained during emergency diesel generator (EDG) maintenance.

Progress Energy Florida, Inc. (PEF) Response:

Crystal River Unit 3 (CR-3) will add alternate AC source (AAC) capability prior to completion of Refueling Outage 14, currently scheduled for Fall 2005. The AAC source is intended to provide defense in depth during EDG online maintenance and other times when it is available and is not intended to be used to change the CR-3 licensing basis for compliance with 10 CFR 50.63, Loss of all alternating current power (Station Blackout). Several options for providing AAC power are under consideration. Each of these options will meet the AAC Power Criteria set out below:

- 1. The AAC source will not be designed to meet Class 1E or safety system requirements.
- 2. The AAC source will not be protected against the effects of failure or misoperation of mechanical equipment, including fire, pipe whip, jet impingement, water spray, flooding from pipe break, radiation, pressurization, elevated temperature or humidity caused by high or medium energy pipe break, missiles, or seismic events.
- 3. AAC components and subsystems shall be protected against the effects of likely weather-related events that may initiate a loss of offsite power event. Permanent structures will be designed to meet the established building codes which require the ability to withstand the effect of a Category 3 hurricane up to 110 mph winds and associated flooding. Temporary structures and equipment will be secured to withstand the severe weather events likely during the duration of their use.
- 4. The AAC components will be physically separate from safety-related components.
- 5. Failure of the AAC components will not adversely affect Class 1E power systems.

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- 6. The AAC shall have electrical separation from the Class 1E power system by two circuit breakers in series, one of which will be a 1E circuit breaker at the Class 1E bus.
- 7. The AAC power source will not normally be connected to the onsite or offsite power systems. The AAC system will not be capable of automatic loading of shutdown equipment.
- 8. The AAC will be designed to minimize potential for common cause failure including the following features:
 - The AAC will have a DC system separate from the Class 1E DC power system used to support the EDGs.
 - The AAC system will have an independent air start system that does not rely on offsite power or 1E power.
 - The AAC power system will have a separate fuel supply from the 1E power system.
 - If the AAC power source is identical to the emergency onsite power source, active failures of the emergency power source will be evaluated for applicability and corrective action.
 - No single point of vulnerability will exist whereby a likely weather event or single active failure could affect the onsite emergency AC source and the offsite sources and simultaneously fail the AAC.
 - The AAC power system shall be capable of operating with a loss of all offsite and onsite AC power.
 - The AAC will have appropriate post-maintenance testing following maintenance prior to relying on the AAC source for an extended allowed outage time (AOT) on the EDGs.
- 9. The AAC power will be capable of carrying the loads required for safe shutdown, including maintaining adequate voltage and frequency such that the performance of safety systems is not degraded.
- 10. The AAC power system capacity and availability will be assured by plant procedures. Availability will be assured during an extended EDG AOT by the following:
 - Starting the AAC and assuring proper operation prior to removing the EDG from service,
 - Verifying every 72 hours that a 24-hour fuel supply is onsite, and
 - Ensuring the AAC is electrically and mechanically ready for manual operation and can be aligned to supply the applicable safety-related bus with simple operator action every 72 hours.

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- 11. An initial test will be performed to demonstrate that the AAC source can be aligned to the safety-related busses within one hour.
- 12. Extended EDG AOTs will only be utilized when the AAC source is available. The AOT reverts back to 72 hours if the AAC is not available. If the AAC becomes unavailable during an EDG extended AOT, the 72 hour AOT begins at the time of discovery that the AAC source was not available, not to exceed a total of 14 days from the time the EDG originally became inoperable.

PEF is currently evaluating both permanent and temporary AAC options. Any alternative selected will meet criteria 1 through 12 described above.

2.0 DESCRIPTION

The addition of an alternate AC source has been incorporated into proposed revisions to ITS 3.8.1, Actions A and B. Action A will be modified to permit a Completion Time of up to 17 days, 3 days due to a loss of one offsite circuit plus 14 days due to a loss of one EDG, as long as alternate AC power is available. The Completion Time for Action B is modified to allow an EDG to be inoperable for 14 days (17 days from time of discovery of failure to meet LCO) as long as alternate AC power is available. The completion time for one EDG inoperable remains 72 hours (6 days from time of discovery of failure to meet LCO) if alternate AC power is not available. The Completion Time that reads:

"* On a one-time basis, each EDG may be inoperable for up to 14 days without alternate AC available. The ability to apply the one-time 14-day Completion Time to each EDG will expire on May 15, 2004."

This note will permit performance of online EDG maintenance on a one-time basis per train prior to installation of the alternate AC source.

ITS page 3.8-4 is also included in this submittal. No changes were made to the requirements on this page but the additions to Conditions A and B moved Condition C from page 3.8-3 to page 3.8-4.

The ITS Bases for Actions A.3 and B.4 are also modified to include the revisions to the Completion Times and the provisions for the availability of the alternate AC source. The following sentence is added in Bases for ITS 3.8.1, Action B.4 to clarify the term "discretionary equipment manipulation."

"The term "discretionary equipment manipulation" is not intended to preclude manipulations required for normal operation of the plant, required surveillances or operator response to abnormal conditions."

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Also a description of the activities required to demonstrate AAC availability is added to the Bases for Action B.4 as follows:

"Availability will be assured during an extended EDG AOT by the following:

- Starting the AAC and assuring proper operation prior to removing the EDG from service,
- Verifying every 72 hours that a 24-hour fuel supply is onsite, and
- Ensuring the AAC is electrically and mechanically ready for manual operation and can be aligned to supply the applicable safety-related bus with simple operator action every 72 hours."

3.0 BACKGROUND

Proposed LAR #257, Revision 1, incorporates the addition of AAC capability. The AAC capability is being designed to provide defense in depth. Installation of AAC capability will require considerable lead time. The design and procurement of the necessary components cannot be completed in time to install AAC capability in Refueling Outage 13, scheduled for Fall 2003. Therefore, installation of AAC capability will not be complete until Refueling Outage 14, scheduled for Fall 2005. In order to proceed with plans to move EDG maintenance to an online activity, Revision 1 to LAR #257 includes a footnote to allow performance of EDG maintenance during a 14-day allowed outage time (AOT) on a one-time basis per train before May 15, 2004. This one-time per train allowance will give PEF sufficient time to install AAC capability in Fall 2005 to support the next EDG maintenance outages during the first quarter 2006. An additional benefit to this schedule is that the EDG maintenance outages will be performed during the time of year with a lower frequency of adverse weather events that could impact offsite power sources.

4.0 TECHNICAL ANALYSIS

4.1 Deterministic Evaluation

The deterministic evaluations of offsite power system, reliability and performance monitoring, the response of onsite systems to a loss of offsite power (station blackout), and surveillance changes presented in LAR #257, Revision 0, remain valid. The addition of AAC capability will provide a significant increase in CR-3's defense in depth. The AAC source will be able to power either ES bus. This arrangement provides an additional level of redundancy for the electrical supply to either train of ES equipment.

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An additional sentence is added in the Bases for ITS 3.8.1 Action B.4 to clarify the term "discretionary equipment manipulation." This term was not intended to preclude manipulations required for normal operation of the plant, required surveillances or operator response to abnormal conditions. The following examples would not be considered "discretionary equipment manipulation":

- 1. Starting Emergency Core Cooling System (ECCS) equipment for normal operations A liquid radwaste release becomes necessary during EDG maintenance. The procedure for liquid releases requires starting a Raw Water pump (which also has ECCS cooling functions) for proper dilution of the release.
- 2. Performance of a required surveillance EDG maintenance takes longer than planned and a surveillance on ECCS would exceed its required interval (including the 25% allowance) before the EDG would be restored.
- 3. Operator response to abnormal conditions The operating control complex cooling fan trips. The operators start the redundant train fan.

This Bases change is intended to provide additional guidance to operators and is not considered a change to the commitment made in Reference 1.

4.2 Risk Informed Evaluation

The risk informed evaluation described in LAR #257, Revision 0, remains valid for the current plant configuration. This configuration is applicable to the plant conditions that will be present if CR-3 performs the online EDG maintenance prior to installation of AAC capability, as requested. The risk informed evaluation concluded that the 14-day AOT resulted in a change in core damage frequency (Δ CDF) and change in large early release frequency (Δ LERF) that met the criteria in Regulatory Guide (RG) 1.177, "An Approach for Plant-Specific Risk-Informed Decisionmaking: Technical Specifications." The criteria in RG 1.177 are for permanent Technical Specification changes and are more stringent than those for other Licensing basis changes, which are described in RG 1.174, "An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis." The proposed one-time per train AOT extension meets the acceptance criteria of both RGs as described in Table 1, Summary of Results, of LAR #257, Revision 0. No revision to this analysis is needed since it remains bounding and provides results that meet all acceptance criteria.

CR-3 has not yet revised the probabilistic safety assessment (PSA) for AAC capability because the design of the proposed installation is not sufficiently complete. Prior to utilization of AAC capability, the PSA evaluation will be revised to assure that the risk assessment is consistent with

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the criteria of RG 1.177 and that the conclusions based on risk are consistent with those contained in this LAR.

5.0 REGULATORY ANALYSIS

An alternate AC source will provide additional capability to mitigate accident consequences. Therefore, the existing no significant hazards consideration evaluation is bounding and no changes are required.

6.0 ENVIRONMENTAL EVALUATION

The additional alternate AC source is planned to be a diesel engine which does involve air emissions and the potential for fuel or lube oil release to the environment. The engine will be run for testing and actual emergencies, not on a continuous basis. Therefore, the increase in airborne effluents is considered insignificant under the current CR-3 permit. Operation of the AAC source falls under the existing permit as exempt since it will be used for emergency power. The AAC source will require diesel fuel and lube oil on site. These quantities will be incorporated into the CR-3 spill prevention program and no changes to permits are required. Since CR-3 will continue to operate under existing permitted limits, no change to the Environmental Evaluation is required.

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72

ATTACHMENT B

LICENSE AMENDMENT REQUEST #257, REVISION 1 Emergency Diesel Generator Allowed Outage Time Extension

Proposed Revised ITS Pages - Strikeout Version

Deleted Text – <u>Sample text</u> Added Text – <u>Sample text</u>

AC Sources - Operating 3.8.1

CONDITION		REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.3	Restore required offsite circuit to OPERABLE status	72 hours
			AND
			6 days from discovery of failure to meet LCO
			, <u>OR</u>
			<u>17 days if</u> <u>alternate AC</u> <u>power is</u> <u>available</u>
B. One EDG inoperable.	B.1	B.1 Perform SR 3.8.1.1 for OPERABLE offsite circuit(s).	1 hour
			AND
			Once per 8 hours thereafter
	AND		
	B.2	Declare required feature(s), supported by the inoperable EDG, inoperable when its redundant required feature(s) are inoperable.	4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)
	AND		
			(continued

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CONDITION		REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.3.1	Determine OPERABLE EDG is not inoperable due to common cause failure.	24 hours
	OR		
	B.3.2	Perform SR 3.8.1.2 for OPERABLE EDG.	24 hours
	AND		
	B.4	Restore EDG to OPERABLE status	72 Hours
			ANÐ <u>AND</u>
			6 days from discovery of failure to meet LCO
			OR
			<u>14 days if</u> <u>alternate AC</u> <u>power is</u> <u>available*</u>
			AND
			<u>17 days from</u> <u>discovery of</u> <u>failure to meet</u> <u>LCO</u>

<u>* On a one-time basis, each EDG may be inoperable for up to 14 days without alternate AC available. The ability to apply the one-time 14-day Completion Time to each EDG will expire on May 15, 2004.</u>

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ACTIONS (continued)

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CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Two required offsite circuits inoperable.	<pre>C.1 Declare required feature(s) inoperable when its redundant required feature(s) are inoperable.</pre> AND C.2 Restore one required	12 hours from discovery of Condition C concurrent with inoperability of redundant required feature(s) 24 hours
	C.2 Restore one required offsite circuit to OPERABLE status.	24 11001 5
D. One required offsite circuit inoperable. <u>AND</u> One EDG inoperable.	Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems Operating," when Condition D is entered with no AC power source to one train.	
	D.1 Restore required offsite circuit to OPERABLE status. <u>OR</u>	12 hours
	D.2 Restore EDG to OPERABLE status.	12 hours
E. Two EDGs inoperable.	E.1 Restore one EDG to OPERABLE status.	2 hours
F. Required Action and associated Completion Time of Condition A, B, C, D, or E not met.	F.1 Be in MODE 3. AND F.2 Be in MODE 5.	12 hours 36 hours
G. Three or more required AC sources inoperable.	G.1 Enter LCO 3.0.3	Immediately

Crystal River Unit 3

Amendment No. 182

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

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ATTACHMENT C

LICENSE AMENDMENT REQUEST #257, REVISION 1 Emergency Diesel Generator Allowed Outage Time Extension

Proposed Revised ITS Pages – Revision Line Version

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CONDITION		REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.3	Restore required offsite circuit to OPERABLE status	72 hours
			AND
			6 days from discovery of failure to meet LCO
			<u>OR</u>
			17 days if alternate AC power is available
B. One EDG inoperable.	B.1	Perform SR 3.8.1.1	1 hour
		for OPERABLE offsite circuit(s).	AND
			Once per 8 hours thereafter
	AND		
	B.2	Declare required feature(s), supported by the inoperable EDG, inoperable when its redundant required feature(s) are inoperable.	4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)
	AND		
			(continued)

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CONDITION		REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.3.1	Determine OPERABLE EDG is not inoperable due to common cause failure.	24 hours
	OR		
	B.3.2	Perform SR 3.8.1.2 for OPERABLE EDG.	24 hours
	AND		
	B.4	Restore EDG to OPERABLE status	72 Hours
			AND
			6 days from discovery of failure to meet LCO
			OR
			14 days if alternate AC power is available*
			AND
			17 days from discovery of failure to meet LCO

(continued)

* On a one-time basis, each EDG may be inoperable for up to 14 days without alternate AC available. The ability to apply the one-time 14-day Completion Time to each EDG will expire on May 15, 2004.

Crystal River Unit 3

ACTIONS (continued)		
CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Two required offsite circuits inoperable.	C.1 Declare required feature(s) inoperable when its redundant required feature(s) are inoperable.	12 hours from discovery of Condition C concurrent with inoperability of redundant required feature(s)
	C.2 Restore one required offsite circuit to OPERABLE status.	24 hours
D. One required offsite circuit inoperable. <u>AND</u> One EDG inoperable.	 NOTE Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems Operating," when Condition D is entered with no AC power source to one train. D.1 Restore required offsite circuit to OPERABLE status. D.2 Restore EDG to OPERABLE status. 	12 hours 12 hours
E. Two EDGs inoperable.	E.1 Restore one EDG to OPERABLE status.	2 hours
F. Required Action and associated Completion Time of Condition A, B, C, D, or E not met.	F.1 Be in MODE 3. AND F.2 Be in MODE 5.	12 hours 36 hours
G. Three or more required AC sources inoperable.	G.1 Enter LCO 3.0.3	Immediately
		a 1 5 51-

Crystal River Unit 3

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PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50 - 302 / LICENSE NUMBER DPR - 72

ATTACHMENT D

LICENSE AMENDMENT REQUEST #257, REVISION 1 Emergency Diesel Generator Allowed Outage Time Extension

Revised ITS Bases Pages – Revision Line Version

BASES

ACTIONS

A.2 (continued)

If at any time during the existence of Condition A (one offsite circuit inoperable) both 'a' and 'b' above become met, this Completion Time begins to be tracked.

The remaining OPERABLE offsite circuit and EDGs are adequate to supply electrical power to Train A and Train B of the onsite Class 1E distribution system. The 24 hour Completion Time takes into account the component OPERABILITY of the redundant counterpart to the inoperable required feature. Additionally, the 24 hour Completion Time takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, and the low probability of a DBA occurring during this period.

<u>A.3</u>

According to the recommendations of Regulatory Guide 1.93 (Ref. 6), operation with one required offsite circuit inoperable should be limited to a period of time not to exceed 72 hours. In this condition, the reliability of the offsite system is degraded, and the potential for a loss of offsite power is increased, with attendant potential for a challenge to the unit safety systems. However, the remaining OPERABLE offsite circuit and EDGs are adequate to supply electrical power to the onsite Class 1E distribution system.

The 72 hour Completion Time takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, and the low probability of a DBA occurring during this period.

The 6 day (17 days with the alternate AC source available) Completion Time for Required Action A.3 establishes a limit on the maximum time allowed for any combination of required AC power sources to be inoperable during any single contiguous occurrence of failure to meet the LCO. If Condition A is entered while, for instance, an EDG is inoperable and that EDG is subsequently returned to OPERABLE status, LCO 3.8.1 may already have been not met for up to 14 days. This could lead to a total of 17 days, since initial failure to meet the LCO, to restore the offsite circuit.

ACTIONS A.3 (continued)

The 6 day and 17 day Completion Times provide limits on the time allowed in a specified condition after discovery of failure to meet the LCO. This limit is considered reasonable for situations in which Conditions A and B are entered concurrently.

As in Required Action A.2, the Completion Time allows for an exception to the normal "time zero" for beginning the allowed outage time "clock." This will result in establishing the "time zero" at the time that the LCO was initially not met, instead of at the time Condition A was entered.

<u>B.1</u>

To ensure a highly reliable power source in the event one EDG is inoperable, it is necessary to verify the availability of the OPERABLE offsite circuits on a more frequent basis. Since the Required Action only specifies "perform," a failure of SR 3.8.1.1 acceptance criteria does not result in a Required Action being not met (Condition F). However, if a circuit fails to pass SR 3.8.1.1, it is inoperable. Upon offsite circuit inoperability, additional Conditions and Required Actions must then be entered.

<u>B.2</u>

Required Action B.2 is intended to provide assurance that a loss of offsite power, during the period that a EDG is inoperable, does not result in a complete loss of safety function of critical redundant required features. These features are designed with redundant safety related trains. Redundant required feature failures consist of inoperable features associated with a train, redundant to the train that has an inoperable EDG. Single train systems (from an electrical perspective), such as the turbine driven emergency feedwater pump, are not included.

BASES

ACTIONS

<u>B.3.1_and B.3.2</u>

Required Action B.3.1 provides an option to testing the OPERABLE EDG in order to avoid unnecessary testing. If it can be determined that the cause of the inoperable EDG does not exist on the OPERABLE EDG, SR 3.8.1.2 does not have to be performed. If the cause of inoperability exists on the other EDG, the other EDG would be declared inoperable upon discovery and Condition E of LCO 3.8.1 would be entered. If the common cause failure evaluation is indeterminate (the cause of the initial inoperable EDG cannot be confirmed not exist on the remaining EDG), performance of SR 3.8.1.2 is adequate to provide assurance of continued OPERABILITY of that EDG.

The Completion Time of 24 hours is reasonable to confirm that the OPERABLE EDG is not affected by the same problem as the inoperable EDG and is based on the recommendations of Generic Letter 84-15 (Ref. 7).

<u>B.4</u>

According to the recommendations of Regulatory Guide 1.93 (Ref.6), operation with one EDG inoperable should be limited to a period not to exceed 72 hours. The completion time may be extended to 14 days if alternate AC (AAC) power is available or on a one-time basis as described in the footnote to the Completion Time. The alternate AC source must be capable of being aligned to the same bus as the inoperable EDG and must be capable of supporting loads required for safe shutdown of the reactor.

In Condition B, the remaining OPERABLE EDG, AAC source and offsite circuits are adequate to supply electrical power to the onsite Class 1E distribution system. The Completion Time takes into account the capacity and capability of the remaining AC sources, a reasonable time for repairs, the ability to perform online preventative maintenance, and the low probability of a DBA occurring during this period.

During online preventative maintenance that is planned to take over 72 hours, the following compensatory measures will be put in place prior to initiating the activity:

B.4 (continued)

ACTIONS (continued)

Availability will be assured during an extended EDG AOT by the following:

- Starting the AAC and assuring proper operation prior to removing the EDG from service,
- Verifying every 72 hours that a 24-hour fuel supply is onsite, and

• Ensuring the AAC is electrically and mechanically ready for manual operation and can be aligned to supply the applicable safety-related bus with simple operator action every 72 hours.

CR-3 will perform procedure CP-253, "Power Operation Risk Assessment and Management," which requires both a deterministic and probabilistic evaluation of risk for the performance of all maintenance activities. This procedure uses the Level 1 PSA model to evaluate the impact of maintenance activities on CDF. CR-3 will not plan any maintenance that results in "Higher Risk" (Orange Color Code) during EDG maintenance.

ECCS equipment, emergency feedwater, Control Complex Cooling and auxiliary feedwater (FWP-7 and MTDG-1) will be designated administratively as "protected" (no planned maintenance or discretionary equipment manipulation). The term "discretionary equipment manipulation" is not intended to preclude manipulations required for normal operation of the plant, required surveillances or operator response to abnormal conditions.

Prior to initiating a planned EDG outage, CR-3 will verify the availability of offsite power to the 230 kV switchyard and ensure that the capability to power both ES busses is available from each of the two ES offsite power transformers (OPT and BEST).

CR-3 will not initiate an EDG extended preventive maintenance outage if adverse weather, as designated by Emergency Preparedness procedures, is anticipated.

No elective maintenance will be scheduled in the switchyard that would challenge the availability of offsite power to the ES busses.

(continued)

ACTIONS (continued) <u>B.4 (continued)</u>

A periodic fire watch will be established in fire areas that are considered risk-significant by the IPEEE, affect both EDGs or have increased risk significance due to EDG maintenance. The fire areas are listed in Table B 3.8.1-1.

The 17-day Completion Time for Required Action B.4 establishes a limit on the maximum time allowed for any combination of required AC power sources to be inoperable during any single contiguous occurrence of failure to meet the LCO. Refer to the Bases for Required Action A.3 for additional information on this Completion Time.

PROGRESS ENERGY FLORIDA, INC.

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CRYSTAL RIVER UNIT 3

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ATTACHMENT E

LICENSE AMENDMENT REQUEST #257, REVISION 1 Emergency Diesel Generator Allowed Outage Time Extension

List of Regulatory Commitments

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List of Regulatory Commitments

The following table identifies those actions committed to by Progress Energy Florida, Inc., (PEF) in this document. Any other actions discussed in the submittal represent intended or planned actions by PEF. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Supervisor, Licensing and Regulatory Programs of any questions regarding this document or any associated regulatory commitments.

Commitment	Due Date
CR-3 will install alternate AC capability.	Prior to completion of Refueling Outage 14, currently scheduled for Fall 2005
The PSA evaluation will be revised to assure that the risk assessment is consistent with the criteria of Regulatory Guide 1.177 and that the conclusions based on risk are consistent with those contained in this license amendment request.	Prior to utilization of the alternate AC source
CR-3 will submit a license amendment request to remove the footnote for the one-time allowance to perform EDG maintenance without alternate AC power.	July 30, 2004