



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

Ref: 10 CFR 50.90

February 17, 2003
3F0203-05

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

Subject: Crystal River Unit 3 - License Amendment Request #274, Revision 0
Containment Isolation Valves

Dear Sir:

Progress Energy Florida, Inc. (Florida Power Corporation) hereby submits License Amendment Request (LAR) #274, Revision 0, requesting a change to the Crystal River Unit 3 (CR-3) Facility Operating License No. DPR-72. This LAR is submitted in accordance with 10 CFR 50.90. LAR #274 revises Improved Technical Specifications (ITS) 3.6.3, "Containment Isolation Valves."

The changes to ITS 3.6.3 proposed by LAR #274 will reduce the operator burden and dose associated with activities related to position verification of manual containment isolation devices that are locked, sealed or otherwise secured in the closed position. The proposed changes are consistent with the guidance contained in NUREG-1430, "Standard Technical Specifications: Babcock and Wilcox Plants," Revision 2. Additionally, the Bases for ITS 3.6.3 have been revised in accordance with Technical Specification Task Force (TSTF) change traveler TSTF-440 to eliminate the requirement for performing a system walk down.

Approval of LAR #274 is requested by October 27, 2003, with a 60-day implementation period.

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

Attachment E lists the new regulatory commitments established in this submittal.

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

Sincerely,

Dale E. Young
Vice President
Crystal River Nuclear Plant

DEY/lvc

A001

Attachments:

- A. Description of Proposed Changes, Background and Reason for Request, and Evaluation of Request
- B. Regulatory Analysis - No Significant Hazards Consideration Determination, Applicable Regulatory Requirements/Criteria, and Environmental Impact Evaluation
- C. Proposed Revised Improved Technical Specifications and Bases Change Pages - Strikeout / Shadow Format
- D. Proposed Revised Improved Technical Specifications and Bases Change Pages - Revision Bar Format
- E. List of Regulatory Commitments

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

STATE OF FLORIDA

COUNTY OF CITRUS

Dale E. Young states that he is the Vice President, Crystal River Nuclear Plant for Progress Energy Florida, Inc (Florida Power Corporation); that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information, and belief.

Dale E Young

Dale E. Young
Vice President
Crystal River Nuclear Plant

The foregoing document was acknowledged before me this 17th day of February, 2003, by Dale E. Young.

Lisa A Morris

Signature of Notary Public
State of Florida



LISA A. MORRIS
Notary Public, State of Florida
My Comm. Exp. Oct. 25, 2003
Comm. No. CC 879691

LISA A MORRIS

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

Personally Produced
Known X -OR- Identification _____

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302 / LICENSE NUMBER DPR-72

ATTACHMENT A

**LICENSE AMENDMENT REQUEST #274, REVISION 0
Containment Isolation Valves**

**Description of Proposed Changes, Background and
Reason for Request, and Evaluation of Request**

**LICENSE AMENDMENT REQUEST #274, REVISION 0
CONTAINMENT ISOLATION VALVES**

Description of Proposed Changes

Crystal River Unit 3 (CR-3) proposes to revise Improved Technical Specifications (ITS) 3.6.3 "Containment Isolation Valves," as follows:

1. The Note modifying ITS 3.6.3, Required Action A.2, will be revised to read:
 1. Isolation devices in high radiation areas may be verified by use of administrative means.
 2. Isolation devices that are locked, sealed, or otherwise secured may be verified by administrative means.

This change is consistent with the standard wording of NUREG-1430, Revision 2, Condition A, Required Action A.2 (NOTES).

2. ITS 3.6.3, Required Action B.1 is being revised to correct a typographical error. The Note modifying ITS 3.6.3, Required Action B.2, will be revised to read:
 1. Isolation devices in high radiation areas may be verified by use of administrative means.
 2. Isolation devices that are locked, sealed, or otherwise secured may be verified by administrative means.

Current CR-3 ITS Condition B, Required Action B.2, NOTE, has been revised to use the words "Isolation devices" instead of the words "Valves and blind flanges." This change is consistent with the standard wording of NUREG-1430, Revision 2. Since another NOTE has also been added, the NOTES have been numbered accordingly as 1 and 2. Although NUREG-1430, Revision 2 wording for Condition B, Required Actions, does not address isolation device verification, Conditions A and C of NUREG-1430, Required Actions contain the two NOTES above which allow verification by administrative means of isolation devices in high radiation areas, and isolation devices that are locked, sealed or otherwise secured.

3. The Note modifying ITS 3.6.3, Required Action C.2, will be revised to read:
 1. Isolation devices in high radiation areas may be verified by use of administrative means.
 2. Isolation devices that are locked, sealed, or otherwise secured may be verified by administrative means.

This change is consistent with the standard wording of NUREG-1430, Revision 2, Condition C, Required Action C.2 (NOTES).

4. Surveillance Requirement (SR) 3.6.3.3 will be changed to read:

“Verify each containment isolation manual valve and blind flange that is located outside containment and is not locked, sealed, or otherwise secured and is required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.”

This change is consistent with the standard wording of NUREG-1430, Revision 2, SR 3.6.3.3.

5. SR 3.6.3.4 will be changed to read:

“Verify each containment isolation manual valve and blind flange that is located inside containment and is not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.”

This change is consistent with the standard wording of NUREG-1430, Revision 2, SR 3.6.3.4.

Bases Section B 3.6.3 will also be revised to reflect the above-listed changes and to incorporate Technical Specification Task Force (TSTF) change traveler TSTF-440 which eliminates the requirement for performing a system walk down.

Background and Reason for Request

Containment isolation valves (and blind flanges) are addressed by CR-3 ITS 3.6.3. The specific ITS 3.6.3 Conditions and Surveillance Requirements (SRs) that will be affected by LAR #274 are Condition A Required Action A.2, Condition B Required Actions B.1 and B.2, Condition C Required Action C.2, SR 3.6.3.3 and SR 3.6.3.4.

Current ITS 3.6.3 Condition A, which is applicable to penetration flow paths with two containment isolation valves, specifies the actions to be taken in the event that one isolation valve in one or more penetration flow paths becomes inoperable. Under this condition, the penetration flow path must be isolated within four hours using at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow secured through the valve. In addition, the affected flow path must be verified to be isolated once per 31 days for isolation valves outside containment. For isolation devices inside containment, this verification must be performed prior to ascension to MODE 4 if not performed within the last 92 days. The only exceptions to the verification requirement are valves and blind flanges located inside high radiation areas, which may be verified by administrative means instead of by direct observation/system walk down.

Current ITS 3.6.3 Condition B, which is applicable to penetration flow paths with two

containment isolation valves or penetration flow paths with one containment isolation valve and no closed system, specifies the actions to be taken in the event that all of the isolation valves in one or more penetration flow paths become inoperable. Under this condition, the penetration flow path must be isolated within one hour using at least one closed and deactivated automatic valve, closed manual valve, or blind flange. In addition, the affected flow path must be verified to be isolated once per 31 days for isolation valves outside containment. For isolation devices inside containment, this verification must be performed prior to ascension to MODE 4 if not performed within the last 92 days. The only exceptions to the verification requirement are valves and blind flanges located inside high radiation areas, which may be verified by administrative means instead of by direct observation/ system walk down.

Current ITS 3.6.3 Condition C, which is applicable to penetration flow paths with one containment isolation valve and a closed system, specifies the actions to be taken in the event that one isolation valve in one or more penetration flow paths becomes inoperable or the closed system is breached. Under this condition, the penetration flow path must be isolated within four hours using at least one closed and deactivated automatic valve, closed manual valve, or blind flange. In addition, the affected flow path must be verified to be isolated once per 31 days. The only exceptions to the verification requirement are valves and blind flanges located inside high radiation areas, which may be verified by administrative means.

SR 3.6.3.3 and SR 3.6.3.4 specifically address normally closed manual containment isolation valves and blind flanges. SR 3.6.3.3 requires position verification of each of the manual valves and blind flanges located outside of the containment every 31 days. SR 3.6.3.4 requires position verification of each of the normally closed manual valves and blind flanges located inside the containment prior to ascension into MODE 4, if not verified within the last 92 days. The only exceptions to these requirements are valves that are open under administrative control, which do not require verification while they are open, and valves and blind flanges located in high radiation areas, which may be verified closed through administrative means.

The current CR-3 position verification requirements specified in Required Action A.2, Required Action B.2, Required Action C.2, SR 3.6.3.3 and SR 3.6.3.4 for normally closed manual containment isolation valves that are locked, sealed or otherwise secured, are more restrictive than those specified in NUREG-1430, "Standard Technical Specifications: Babcock and Wilcox Plants," Revision 2. Unlike the CR-3 ITS, Required Actions A.2 and C.2 of NUREG-1430 are modified by Notes stating that isolation devices that are locked, sealed, or otherwise secured may be verified by administrative means. In addition, SR 3.6.3.3 and SR 3.6.3.4 of NUREG-1430 do not require physical position verification of manual containment isolation valves that are locked, sealed or otherwise secured in the closed position. The more restrictive CR-3 requirements significantly expand the activities of surveillance procedures (SPs) associated with SR 3.6.3.3 and SR 3.6.3.4, resulting in unnecessary operator burden and increased operator dose. The changes proposed by LAR #274 will reduce the operator burden and minimize the dose associated with performing the surveillances and other position verifications required by ITS 3.6.3, while improving consistency with the guidance provided in NUREG-1430.

Although the Required Actions B.1 and B.2 of current ITS 3.6.3, Condition B are more conservative than NUREG-1430 Condition B, which does not require periodic verification that the penetration flow path is isolated, CR-3 believes that verification is a prudent action for this

Condition and should remain part of the CR-3 ITS. However, CR-3 proposes to modify the NOTE associated with Required Action B.2 to allow the use of administrative means to verify the position of isolation devices that are locked, sealed or otherwise secured.

Evaluation of Request

At CR-3, the SPs used to implement the requirements of SR 3.6.3.3 and SR 3.6.3.4 are SP-341, "Monthly Containment Isolation Valve Operability Check," for manual valves and blind flanges outside the containment, and SP-324, "Containment Inspection," for manual valves and blind flanges located inside the containment. Containment isolation devices are currently listed in Final Safety Analysis Report (FSAR) Table 5-9. Surveillance of these devices constitutes an administrative burden with no significant safety benefit. Since these isolation devices will be locked, sealed or otherwise secured, the changes proposed by LAR #274 will significantly reduce the time and dose associated with performance of these SPs activities. The changes to Required Actions A.2, B.2 and C.2 are expected to reduce operator burden and dose, and will ensure consistency within the specification and with current NUREG-1430 guidance.

The Bases changes to delete the words "through a system walk down" are being incorporated to adopt Technical Specification Task Force (TSTF) Traveler TSTF-440. As discussed in the TSTF traveler, this change brings flexibility in performing periodic verification of the alignment or isolation of a system while meeting the intent of the Specifications without unintended consequences, such as increased personnel dose.

Following NRC approval of LAR #274, other procedures and controls currently in place at CR-3 will continue to provide assurance that normally closed manual containment isolation devices that are locked, sealed or otherwise secured, are maintained in their correct positions.

- The valves removed from SP-324 and SP-341 will continue to be periodically surveilled in accordance with SP-381, "Locked/Sealed Valve Check List (Position Verification of Locked/Sealed Valves)."
- Initial valve lineups performed using plant operating procedures for system/plant startup following outages/maintenance activities provide an additional method of position verification.
- The physical restraint (lock or seal) placed on these devices minimizes the possibility of inadvertent repositioning. This possibility is further reduced for devices inside containment due to their inaccessibility during normal operations.
- Repositioning of many of these normally closed blind flanges and valves would result in associated system inventory decreases or increases in various sump levels, thus providing the operations staff with indication of a potentially mispositioned isolation device.
- If a device has been repositioned as the result of a clearance, restoration of the device to its correct position/status is performed in accordance with OPS-NGGC-1301, "Equipment Clearance." This procedure requires independent or concurrent verification that the device is restored to its correct position when the clearance is removed.

Guidance regarding verification and locked/sealed devices is also contained in Operations Instruction (OI)-10, "Verification of Activities/Questioning Attitude."

- CP-123, "Restrained Components and Key Control" provides administrative guidance related to restrained (locked or sealed) components, including restraint criteria, key control, and acceptable methods of position verification. Additional guidance related to locked/sealed valves, as well as general guidance on control of equipment, is provided in OI-07, "Control of Equipment and System Status."

The proposed changes continue to provide assurance that isolation devices required to be closed under accident conditions are closed.

Precedent

The wording for SR 3.6.3.3 requiring closure verification of valve and blind flanges that are not locked sealed or otherwise secured was approved for Duke's Energy's Oconee plant (License Amendment No. 300) which is a similarly designed Babcock and Wilcox reactor.

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

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ATTACHMENT B

**LICENSE AMENDMENT REQUEST #274, REVISION 0
Containment Isolation Valves**

Regulatory Analysis

**No Significant Hazards Consideration Determination, Applicable Regulatory
Requirements/Criteria, and Environmental Impact Evaluation**

No Significant Hazards Consideration Determination

Crystal River Unit 3 (CR-3) proposes to revise Improved Technical Specifications (ITS) 3.6.3 "Containment Isolation Valves," as follows:

1. The Note modifying ITS 3.6.3, Required Action A.2, will be revised to read:
 1. Isolation devices in high radiation areas may be verified by use of administrative means.
 2. Isolation devices that are locked, sealed or otherwise secured may be verified by administrative means.

This change is consistent with the standard wording of NUREG-1430, Revision 2, Condition A, Required Action A.2 (NOTES).

2. ITS 3.6.3, Required Action B.1 is being revised to correct a typographical error. The Note modifying ITS 3.6.3, Required Action B.2, will be revised to read:
 1. Isolation devices in high radiation areas may be verified by use of administrative means.
 2. Isolation devices that are locked, sealed or otherwise secured may be verified by administrative means.

Current CR-3 ITS Condition B, Required Action B.2, NOTE , has been revised to use the words "Isolation devices" instead of the words "Valves and blind flanges." This change is consistent with the standard wording of NUREG-1430, Revision 2. Since another NOTE has also been added, the NOTES have been numbered accordingly as 1 and 2. Although NUREG- 1430, Revision 2 wording for Condition B, Required Actions, does not address isolation device verification, Conditions A and C of NUREG-1430, Required Actions contain the two NOTES above which allow verification by administrative means of isolation devices in high radiation areas, and isolation devices that are locked, sealed or otherwise secured.

3. The Note modifying ITS 3.6.3, Required Action C.2, will be revised to read:
 1. Isolation devices in high radiation areas may be verified by use of administrative means.
 2. Isolation devices that are locked, sealed or otherwise secured may be verified by administrative means.

This change is consistent with the standard wording of NUREG-1430, Revision 2, Condition C, Required Action C.2 (NOTES).

4. Surveillance Requirement (SR) 3.6.3.3 will be changed to read:

“Verify each containment isolation manual valve and blind flange that is located outside containment and is not locked, sealed, or otherwise secured and is required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.”

This change is consistent with the standard wording of NUREG-1430, Revision 2, SR 3.6.3.3.

5. SR 3.6.3.4 will be changed to read:

“Verify each containment isolation manual valve and blind flange that is located inside containment and is not locked, sealed or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.”

This change is consistent with the standard wording of NUREG-1430, Revision 2, SR 3.6.3.4.

Bases Section B 3.6.3 will also be revised to reflect the above-listed changes and to incorporate Technical Specification Task Force (TSTF) change traveler TSTF-440 which eliminates the requirement for performing a system walk down.

Progress Energy Florida, Inc. (Florida Power Corporation) has reviewed the proposed revisions to ITS 3.6.3 and Bases, Section B 3.6.3 against the requirements of 10 CFR 50.92(c). The proposed changes do not involve a significant hazards consideration. In support of this conclusion, the following analysis is provided:

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

The proposed License Amendment Request (LAR) will revise the position verification requirements for manual containment isolation devices that are locked, sealed, or otherwise secured in the closed position. The proposed changes will allow the use of administrative controls to verify the position of these types of devices when they are being used to meet the Required Actions of ITS 3.6.3 Condition A, Condition B or Condition C, and will exclude these valves from Surveillance Requirement (SR) 3.6.3.3 and SR 3.6.3.4 physical position verification requirements.

The design function of the affected containment isolation valves, and the initial conditions for accidents that require these valves to be closed, will not be affected by the proposed changes. Therefore, the changes will not increase 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 analyzed.*

The proposed license amendment will revise the position verification requirements for manual containment isolation devices that are locked, sealed, or otherwise secured in the closed position.

No changes to the actual position/status of these valves are proposed by this amendment. The proposed amendment will not result in changes to the design, physical configuration or operation of the plant. Therefore, the proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

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

Changes to the position verification requirements of normally closed manual containment isolation valves that are locked, sealed, or otherwise secured do not change the position/status of these valves. The proposed amendment does not impact the ability of these valves to perform their design function of controlling containment leakage rates during design basis radiological accidents. Therefore, the proposed amendment does not result in a reduction of the margin of safety.

Applicable Regulatory Requirements

CR-3 has evaluated the Regulatory Requirements applicable to the proposed change to the ITS 3.6.3 as follows:

10 CFR 50, Appendix A

The General Design Criteria (GDC) for nuclear power plants (Appendix A to 10 CFR 50) came into effect after the licensing of CR-3. CR-3 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, and which are applicable to this unit. Thus, the GDC in 10 CFR 50, Appendix A, applicable to this proposed change to ITS 3.6.3 is Criterion 56. The corresponding CR-3 GDC is Criterion 53, "Containment Isolation Valves."

The proposed amendment does not impact the ability of these valves to perform their design function of controlling containment leakage rates during design basis radiological accidents.

CR-3 has determined that the proposed changes do not require any exemptions or relief from regulatory requirements other than the changes requested to ITS 3.6.3.

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 operation of the facility in accordance with the proposed amendment would not: (1) involve a significant hazards consideration, (2) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (3) result in a significant increase in individual or cumulative occupational radiation exposure.

CR-3 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(c), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of the proposed license amendment. The basis for this determination is as follows:

1. The proposed license amendment does not involve a significant hazards consideration as described previously in the no significant hazards evaluation for this LAR.
2. The proposed license amendment will revise the position verification requirements for manual containment isolation devices that are locked, sealed, or otherwise secured in the closed position. The proposed changes will allow the use of administrative controls to verify the position of these types of devices when they are being used to meet the Required Actions of Improved Technical Specifications (ITS) 3.6.3 Condition A, Condition B, or Condition C, and will exclude these valves from SR 3.6.3.3 and SR 3.6.3.4 physical position verification requirements.

The proposed changes do not change the position/status of the affected valves, do not impact the operation or configuration of any plant systems that are involved in the generation or processing of radioactive fluids, and do not create any new or different radiological release pathways. Therefore, the proposed license amendment will not result in a significant change in the types or increase in the amounts of any effluents that may be released off-site.

3. The proposed changes do not affect the operation of equipment that interfaces with radiologically contaminated systems, and do not require operator or other actions that could increase occupational radiation exposure. The revised position verification requirements for locked, sealed or otherwise secured manual containment isolation valves will result in a reduction of the dose received by the operators who perform these verifications. Therefore, the proposed license amendment will not result in a significant increase to individual or cumulative occupational radiation exposure.

PROGRESS ENERGY FLORIDA, INC

CRYSTAL RIVER UNIT 3

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ATTACHMENT C

LICENSE AMENDMENT REQUEST #274, REVISION 0
Containment Isolation Valves

Proposed Revised Improved Technical Specifications and Bases
Change Pages

Strikeout / Shadow Format

Strikeout text	Indicates deleted text
Shadowed text	Indicates added text

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	<p>A.2</p> <p>-----NOTES-----</p> <p>1. Isolation devices Valves and blind flanges in high radiation areas may be verified by use of administrative means.</p> <p>2. Isolation devices that are locked, sealed, or otherwise secured may be verified by administrative means.</p> <p>-----</p> <p>Verify the affected penetration flow path is isolated.</p>	<p>Once per 31 days for isolation devices outside containment</p> <p><u>AND</u></p> <p>Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. -----NOTE----- Only applicable to penetration flow paths with two containment isolation valves or penetration flow paths with one containment isolation valve and no closed system. ----- One or more penetration flow paths with all containment isolation valves inoperable (except for 48 inch purge valve leakage not within limit).</p>	<p>B.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.</p> <p><u>AND</u></p> <p>B.2 -----NOTES----- 1. Isolation devices Valves and blind flanges in high radiation areas may be verified by use of administrative means. 2. Isolation devices that are locked, sealed, or otherwise secured may be verified by administrative means. ----- Verify the affected penetration flow path is isolated.</p>	<p>1 hour</p> <p>Once per 31 days for isolation devices outside containment</p> <p><u>AND</u></p> <p>Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.6.3.1 Verify each 48 inch purge valve is sealed closed except for one purge valve in a penetration flow path while in Condition D of the LCO.</p>	31 days
<p>SR 3.6.3.2 Verify each 6 inch post accident hydrogen purge valve is closed except when the 6 inch post accident hydrogen purge valves are open for pressure control, ALARA or air quality considerations for personnel entry, or for Surveillances that require the valves to be open.</p>	31 days
<p>SR 3.6.3.3 -----NOTE----- Valves and blind flanges in high radiation areas may be verified by use of administrative means. -----</p> <p>Verify each containment isolation manual valve and blind flange that is located <u>outside containment and is not locked, sealed, or otherwise secured</u> and is required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.</p>	31 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.3.4 -----NOTE----- Valves and blind flanges in high radiation areas may be verified by use of administrative means. -----</p> <p>Verify each containment isolation manual valve and blind flange that is located inside containment <u>and is not locked, sealed, or otherwise secured</u> and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.</p>	<p>Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days</p>
<p>SR 3.6.3.5 Verify the isolation time of each power operated and each automatic containment isolation valve that is not locked, sealed, or otherwise secured in the isolation position, is within limits.</p>	<p>In accordance with the Inservice Testing Program</p>
<p>SR 3.6.3.6 -----NOTE----- Results shall be evaluated against acceptance criteria of SR 3.6.1.1 in accordance with the Containment Leakage Rate Testing Program. -----</p> <p>Perform leakage rate testing for each 48 inch containment purge valve.</p>	<p>Within 92 days after opening the valve</p> <p><u>AND</u></p> <p>24 months</p>

(continued)

BASES

ACTIONS

A.1 and A.2 (continued)

verification is necessary to ensure that containment penetrations required to be isolated following an accident and no longer capable of being automatically isolated will be in the isolation position should an event occur. This Required Action does not require any testing or valve manipulation. Rather, it involves verification, ~~through a system walkdown,~~ that those isolation devices capable of being mispositioned are in the correct position. The Completion Time of "once per 31 days for isolation devices outside containment" is appropriate considering the fact that the valves are operated under administrative controls and the probability of their misalignment is low. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

Condition A has been modified by a Note indicating this Condition is only applicable to those penetration flow paths with two containment isolation valves. For penetration flow paths with only one containment isolation valve and a closed system, Condition C provides appropriate actions.

Required Action A.2 is modified by ~~two a-Notes. Note 1~~ that applies to ~~isolation devices valves and blind flanges~~ located in high radiation areas and allows the devices to be verified by use of administrative means. Allowing verification by administrative means is considered acceptable since access to these areas is typically restricted. ~~Note 2~~ applies to ~~isolation devices that are locked, sealed, or otherwise secured in position and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the function of locking, sealing or securing components is to ensure that these devices are not inadvertently repositioned. Therefore, the probability of misalignment of these devices, once they have been verified to be in the proper position, is small.~~

B.1 and B.2

With all containment isolation valves in one or more penetration flow paths inoperable (except for 48 inch purge valve leakage not within limit), the affected penetration flow path must be isolated within 1 hour. The method of isolation must include the use of at least one isolation

(continued)

BASES

ACTIONS

B.1 and B.2 (continued)

barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, and a blind flange. The 1 hour Completion Time is consistent with the ACTIONS of LCO 3.6.1. In the event the affected penetration is isolated in accordance with Required Action B.1, the affected penetration must be verified to be isolated on a periodic basis per Required Action B.2. This periodic verification is necessary to assure leak tightness of containment and that penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying each affected penetration flow path is isolated is appropriate considering the fact that the valves are operated under administrative controls and the probability of their misalignment is low.

Condition B is modified by a Note indicating this Condition is only applicable to penetration flow paths with two containment isolation valves or those with one containment isolation valve and no closed system. Condition A of this Specification addresses the condition of one containment isolation valve inoperable in a penetration flow path with two containment isolation valves.

Required Action B.2 is modified by ~~two a-Notes~~. Note 1 that applies to isolation devices valves and blind flanges located in high radiation areas and allows the devices to be verified by use of administrative means. Allowing verification by administrative means is considered acceptable since access to these areas is typically restricted. Note 2 applies to isolation devices that are locked, sealed, or otherwise secured in position and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the function of locking, sealing or securing components is to ensure that these devices are not inadvertently repositioned. Therefore, the probability of misalignment of these devices, once they have been verified to be in the proper position, is small.

C.1 and C.2

With one or more penetration flow paths with one containment isolation valve inoperable or the closed system breached, the inoperable valve must be restored to OPERABLE status or the affected penetration flow path must be isolated. The method of isolation must include the use of at least one

(continued)

BASES

ACTIONS

C.1 and C.2 (continued)

isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, and a blind flange. A check valve may not be used to isolate the affected penetration. Required Action C.1 must be completed within the 4 hour Completion Time. The specified time period is reasonable, considering the relative stability of the closed system (hence, reliability) to act as a penetration isolation boundary and the relative importance of supporting containment OPERABILITY during MODES 1, 2, 3, and 4. In the event the affected penetration is isolated in accordance with Required Action C.1, the affected penetration flow path must be verified to be isolated on a periodic basis. This periodic verification is necessary to assure leak tightness of containment and that containment penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying that each affected penetration flow path is isolated is appropriate considering the fact that the valves are operated under administrative controls and the probability of their misalignment is low.

Condition C is modified by a Note indicating that this Condition is only applicable to those penetration flow paths with only one containment isolation valve and a closed system. This Note is necessary since this Condition is written to specifically address those penetration flow paths utilizing a closed system.

Required Action C.2 is modified by ~~two a-Notes~~. Note 1 that applies to isolation devices valves and blind flanges located in high radiation areas and allows these devices to be verified by use of administrative means. Allowing verification by administrative means is considered acceptable since access to these areas is typically restricted. Note 2 applies to isolation devices that are locked, sealed, or otherwise secured in position and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the function of locking, sealing or securing components is to ensure that these devices are not inadvertently repositioned. Therefore, the probability of misalignment of these devices, once verified to be in the proper position, is small.

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.6.3.1 (continued)

the source of electric power or by removing the air supply to the valve operator. In this application, the term "sealed" has no connotation of leak tightness. The Frequency is a result of an NRC initiative, Generic Issue B-24 (Ref. 6), related to containment purge valve use during unit operations. In the event purge valve leakage requires entry into Condition D, the Surveillance permits opening one purge valve in a penetration flow path to perform repairs.

SR 3.6.3.2

This SR ensures that the 6 inch post accident hydrogen purge valves are closed as required or, if open, open for an allowable reason. The SR is not required to be met when the post accident hydrogen purge valves are open for pressure control, ALARA or air quality considerations for personnel entry, or for Surveillances that require the valves to be open. The post accident hydrogen purge valves are capable of closing in the environment following a LOCA. Therefore, these valves are allowed to be open for limited periods of time. The 31 day Frequency for verifying valve position is consistent with other containment isolation valve requirements discussed in SR 3.6.3.3.

SR 3.6.3.3

This SR requires verification that each containment isolation manual valve and blind flange located outside containment and is not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside the containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification, ~~through a system walkdown,~~ that those valves outside containment and capable of being mispositioned are in the correct position. Since verification of valve position for valves outside containment is relatively easy, a 31 day Frequency, based on engineering judgment was chosen

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.6.3.3 (continued)

to provide added assurance of the correct positions. The SR specifies that valves open under administrative controls are not required to meet the SR during the time the valves are open.

A Note modifies this SR and applies to valves and blind flanges located in high radiation areas allowing these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, 3, and 4 for ALARA reasons. Therefore, the probability of misalignment of these valves, once they have been verified to be in the proper position, is low.

SR 3.6.3.4

This SR requires verification that each containment isolation manual valve and blind flange that is located inside containment and is not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside the containment boundary is within design limits. For valves inside containment, the Frequency of "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is appropriate, since these valves and flanges are typically inaccessible during reactor operation, are operated under administrative controls and the probability of their misalignment is low. The SR specifies that valves open under administrative controls are not required to meet the SR during the time they are open.

The Note allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the access to these areas is typically restricted during MODES 1, 2, 3, and 4 for ALARA reasons. Therefore, the probability of misalignment of these valves, once they have been verified to be in their proper position, is small.

(continued)

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302 / LICENSE NUMBER DPR-72

ATTACHMENT D

LICENSE AMENDMENT REQUEST #274, REVISION 0
Containment Isolation Valves

Proposed Revised Improved Technical Specifications and Bases Change
Pages

Revision Bar Format

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	<p>A.2</p> <p>-----NOTES-----</p> <p>1. Isolation devices in high radiation areas may be verified by use of administrative means.</p> <p>2. Isolation devices that are locked, sealed, or otherwise secured may be verified by administrative means.</p> <p>-----</p> <p>Verify the affected penetration flow path is isolated.</p>	<p>Once per 31 days for isolation devices outside containment</p> <p><u>AND</u></p> <p>Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. -----NOTE----- Only applicable to penetration flow paths with two containment isolation valves or penetration flow paths with one containment isolation valve and no closed system. ----- One or more penetration flow paths with all containment isolation valves inoperable (except for 48 inch purge valve leakage not within limit).</p>	<p>B.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.</p> <p><u>AND</u></p> <p>B.2 -----NOTES----- 1. Isolation devices in high radiation areas maybe verified by use of administrative means. 2. Isolation devices that are locked, sealed, or otherwise secured may be verified by administrative means. ----- Verify the affected penetration flow path is isolated.</p>	<p>1 hour</p> <p>Once per 31 days for isolation devices outside containment</p> <p><u>AND</u></p> <p>Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.6.3.1 Verify each 48 inch purge valve is sealed closed except for one purge valve in a penetration flow path while in Condition D of the LCO.</p>	31 days
<p>SR 3.6.3.2 Verify each 6 inch post accident hydrogen purge valve is closed except when the 6 inch post accident hydrogen purge valves are open for pressure control, ALARA or air quality considerations for personnel entry, or for Surveillances that require the valves to be open.</p>	31 days
<p>SR 3.6.3.3 -----NOTE----- Valves and blind flanges in high radiation areas may be verified by use of administrative means. -----</p> <p>Verify each containment isolation manual valve and blind flange that is located outside containment and is not locked, sealed, or otherwise secured and is required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.</p>	31 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.6.3.4 -----NOTE----- Valves and blind flanges in high radiation areas may be verified by use of administrative means. -----</p> <p>Verify each containment isolation manual valve and blind flange that is located inside containment and is not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls.</p>	<p>Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days</p>
<p>SR 3.6.3.5 Verify the isolation time of each power operated and each automatic containment isolation valve that is not locked, sealed, or otherwise secured in the isolation position, is within limits.</p>	<p>In accordance with the Inservice Testing Program</p>
<p>SR 3.6.3.6 -----NOTE----- Results shall be evaluated against acceptance criteria of SR 3.6.1.1 in accordance with the Containment Leakage Rate Testing Program. -----</p> <p>Perform leakage rate testing for each 48 inch containment purge valve.</p>	<p>Within 92 days after opening the valve</p> <p><u>AND</u></p> <p>24 months</p>

(continued)

BASES

ACTIONS A.1 and A.2 (continued)

verification is necessary to ensure that containment penetrations required to be isolated following an accident and no longer capable of being automatically isolated will be in the isolation position should an event occur. This Required Action does not require any testing or valve manipulation. Rather, it involves verification that those isolation devices capable of being mispositioned are in the correct position. The Completion Time of "once per 31 days for isolation devices outside containment" is appropriate considering the fact that the valves are operated under administrative controls and the probability of their misalignment is low. For the isolation devices inside containment, the time period specified as "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is based on engineering judgment and is considered reasonable in view of the inaccessibility of the isolation devices and other administrative controls that will ensure that isolation device misalignment is an unlikely possibility.

Condition A has been modified by a Note indicating this Condition is only applicable to those penetration flow paths with two containment isolation valves. For penetration flow paths with only one containment isolation valve and a closed system, Condition C provides appropriate actions.

Required Action A.2 is modified by two Notes. Note 1 applies to isolation devices located in high radiation areas and allows the devices to be verified by use of administrative means. Allowing verification by administrative means is considered acceptable since access to these areas is typically restricted. Note 2 applies to isolation devices that are locked, sealed, or otherwise secured in position and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the function of locking, sealing or securing components is to ensure that these devices are not inadvertently repositioned. Therefore, the probability of misalignment of these devices, once they have been verified to be in the proper position, is small.

B.1 and B.2

With all containment isolation valves in one or more penetration flow paths inoperable (except for 48 inch purge valve leakage not within limit), the affected penetration flow path must be isolated within 1 hour. The method of isolation must include the use of at least one isolation

(continued)

BASES

ACTIONS

B.1 and B.2 (continued)

barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, and a blind flange. The 1 hour Completion Time is consistent with the ACTIONS of LCO 3.6.1. In the event the affected penetration is isolated in accordance with Required Action B.1, the affected penetration must be verified to be isolated on a periodic basis per Required Action B.2. This periodic verification is necessary to assure leak tightness of containment and that penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying each affected penetration flow path is isolated is appropriate considering the fact that the valves are operated under administrative controls and the probability of their misalignment is low.

Condition B is modified by a Note indicating this Condition is only applicable to penetration flow paths with two containment isolation valves or those with one containment isolation valve and no closed system. Condition A of this Specification addresses the condition of one containment isolation valve inoperable in a penetration flow path with two containment isolation valves.

Required Action B.2 is modified by two Notes. Note 1 applies to isolation devices located in high radiation areas and allows the devices to be verified by use of administrative means. Allowing verification by administrative means is considered acceptable since access to these areas is typically restricted. Note 2 applies to isolation devices that are locked, sealed, or otherwise secured in position and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the function of locking, sealing or securing components is to ensure that these devices are not inadvertently repositioned. Therefore, the probability of misalignment of these devices, once they have been verified to be in the proper position, is small.

C.1 and C.2

With one or more penetration flow paths with one containment isolation valve inoperable or the closed system breached, the inoperable valve must be restored to OPERABLE status or the affected penetration flow path must be isolated. The method of isolation must include the use of at least one

(continued)

BASES

ACTIONS

C.1 and C.2 (continued)

isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, and a blind flange. A check valve may not be used to isolate the affected penetration. Required Action C.1 must be completed within the 4 hour Completion Time. The specified time period is reasonable, considering the relative stability of the closed system (hence, reliability) to act as a penetration isolation boundary and the relative importance of supporting containment OPERABILITY during MODES 1, 2, 3, and 4. In the event the affected penetration is isolated in accordance with Required Action C.1, the affected penetration flow path must be verified to be isolated on a periodic basis. This periodic verification is necessary to assure leak tightness of containment and that containment penetrations requiring isolation following an accident are isolated. The Completion Time of once per 31 days for verifying that each affected penetration flow path is isolated is appropriate considering the fact that the valves are operated under administrative controls and the probability of their misalignment is low.

Condition C is modified by a Note indicating that this Condition is only applicable to those penetration flow paths with only one containment isolation valve and a closed system. This Note is necessary since this Condition is written to specifically address those penetration flow paths utilizing a closed system.

Required Action C.2 is modified by two Notes. Note 1 applies to isolation devices located in high radiation areas and allows these devices to be verified by use of administrative means. Allowing verification by administrative means is considered acceptable since access to these areas is typically restricted. Note 2 applies to isolation devices that are locked, sealed, or otherwise secured in position and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the function of locking, sealing or securing components is to ensure that these devices are not inadvertently repositioned. Therefore, the probability of misalignment of these devices, once verified to be in the proper position, is small.

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.6.3.1 (continued)

the source of electric power or by removing the air supply to the valve operator. In this application, the term "sealed" has no connotation of leak tightness. The Frequency is a result of an NRC initiative, Generic Issue B-24 (Ref. 6), related to containment purge valve use during unit operations. In the event purge valve leakage requires entry into Condition D, the Surveillance permits opening one purge valve in a penetration flow path to perform repairs.

SR 3.6.3.2

This SR ensures that the 6 inch post accident hydrogen purge valves are closed as required or, if open, open for an allowable reason. The SR is not required to be met when the post accident hydrogen purge valves are open for pressure control, ALARA or air quality considerations for personnel entry, or for Surveillances that require the valves to be open. The post accident hydrogen purge valves are capable of closing in the environment following a LOCA. Therefore, these valves are allowed to be open for limited periods of time. The 31 day Frequency for verifying valve position is consistent with other containment isolation valve requirements discussed in SR 3.6.3.3.

SR 3.6.3.3

This SR requires verification that each containment isolation manual valve and blind flange located outside containment and is not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside the containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification that those valves outside containment and capable of being mispositioned are in the correct position. Since verification of valve position for valves outside containment is relatively easy, a 31 day Frequency, based on engineering judgment was chosen

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.6.3.3 (continued)

to provide added assurance of the correct positions. The SR specifies that valves open under administrative controls are not required to meet the SR during the time the valves are open.

A Note modifies this SR and applies to valves and blind flanges located in high radiation areas allowing these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during MODES 1, 2, 3, and 4 for ALARA reasons. Therefore, the probability of misalignment of these valves, once they have been verified to be in the proper position, is low.

SR 3.6.3.4

This SR requires verification that each containment isolation manual valve and blind flange that is located inside containment and is not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside the containment boundary is within design limits. For valves inside containment, the Frequency of "prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days" is appropriate, since these valves and flanges are typically inaccessible during reactor operation, are operated under administrative controls and the probability of their misalignment is low. The SR specifies that valves open under administrative controls are not required to meet the SR during the time they are open.

The Note allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the access to these areas is typically restricted during MODES 1, 2, 3, and 4 for ALARA reasons. Therefore, the probability of misalignment of these valves, once they have been verified to be in their proper position, is small.

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PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302 / LICENSE NUMBER DPR - 72

ATTACHMENT E

LICENSE AMENDMENT REQUEST #274, REVISION 0
Containment Isolation Valves

List of Regulatory Commitments

List of Regulatory Commitments

The following table identifies those actions committed to by Crystal River Unit 3 (CR-3) in this document. Any other actions discussed in the submittal represent intended or planned actions by CR-3. 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
The valves removed from SP-324 and SP-341 will continue to be periodically surveilled in accordance with SP-381, "Locked/Sealed Valve Check List (Position Verification of Locked/Sealed Valves)."	Following NRC approval of LAR #274 as part of LAR implementation