Florida Power
CORPORATION
Crystal River Unit 3
Docket No. 50-302

July 5, 1996
3F0796-08

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

Subject: Licensee Event Report (LER) 96-018-00

Dear Sir:

Please find the enclosed Licensee Event Report (LER) 96-018-00. This report is submitted by Florida Power Corporation in accordance with 10 CFR 50.73.

Sincerely,

for B. J. Hickle

B. J. Hickle, Director
Nuclear Plant Operations

TWC:ff

Attachment

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

NRC FORM 366 (5-92)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104

EXPIRES 5/31/95

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HOURS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
CRYSTAL RIVER UNIT 3 (CR-3)	0 5 0 0 0 3 0 2	1 OF 0 6

TITLE (4)

Inadequate Containment Penetration Surveillance Procedure Results in Technical Specification Violation

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
									N/A	0 5 0 0 0
0 6	0 5	9 6	9 6	0 1 8	0 0	0 7	0 5	9 6	N/A	0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (CHECK ONE OR MORE OF THE FOLLOWING) (11)			
POWER LEVEL (10)	0 1 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
T.W. Catchpole, Sr. Nuclear Licensing Engineer	3 5 2 5 6 3 - 4 6 0 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)

		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On June 5, 1996, Florida Power Corporation's Crystal River Unit 3 (CR-3) was in MODE ONE (POWER OPERATION), operating at 10% reactor power. While performing a review of Surveillance Procedure SP-341 "Monthly Containment Isolation Valve Operability Check" for familiarity, the newly assigned System Engineer identified two Reactor Building (RB) containment penetrations having blind flanges that were not being verified closed once per 31 days as required by technical specifications. While these original plant penetrations are referenced within the appropriate surveillance procedure, the SP only verifies a test connection valve and does not require verification that the penetrations have blind flanges installed, thereby representing a condition prohibited by technical specifications. Subsequently, the system engineer identified three local leak rate test valves added by plant modifications in 1991 and 1993 that were not contained in the subject surveillance procedure. The cause of this event was personnel error which contributed to an inadequate surveillance procedure. In addition, this event can be attributed to inadequate corrective action from previous LER's. Actions will include a complete verification of containment penetration documents and revision to the affected surveillance procedure.

EVENT DESCRIPTION

On June 5, 1996, Florida Power Corporation's (FPC) Crystal River Unit 3 (CR-3) was in MODE ONE (POWER OPERATION), operating at 10% reactor power. While performing a general review of Surveillance Procedure SP-341 "Monthly Containment Isolation Valve Operability Check" for familiarity, the newly assigned System Engineer identified two Reactor Building (RB) containment penetrations [PEN] having blind flanges that were not being verified closed once per 31 days as required. These penetrations (PEN 119 and PEN 120) are normally isolated by blind flanges. During outages the blind flanges are replaced by flanges containing lines used for feeding cables and process lines into the RB to support Once-Through Steam Generator [AB,SG] (OTSG) work activities. A review of SP-341 revealed that while these penetrations are identified within the procedure, SP-341 does not verify PEN 119 and PEN 120 have blind flanges installed. SP-341 only required verification that local leak rate test connection valves associated with the penetrations were closed and capped.

A Problem Report was generated on June 5, 1996 to describe the above situation and was initially evaluated as not reportable based on an immediate verification that the blind flanges for PEN 119 and 120 were bolted in place, and based on the fact the inside flanges had been surveilled per SP-324 "Containment Inspection" which is performed quarterly. The Shift Supervisor on Duty (SSOD) supported this position by referencing ITS Surveillance Requirement SR 3.0.3 which allows up to 24 hours to perform a surveillance discovered not performed within its specified Frequency.

Based on follow-up actions associated with the above Problem Report, on June 13, and June 14, 1996, the System Engineer identified additional penetrations (PEN 113 and PEN 439) containing valves that were not verified by SP-341. Air Handling Valve [VA,ISV] AHV-24 is a local leak rate test valve between Reactor Building Purge Valves [VA,ISV] associated with PEN 113. Chemical Addition Valves [KD,ISV] CAV-619 and 622 are used during testing and maintenance of the Post Accident Sampling System (PASS) sample lines associated with PEN 439. Operations personnel immediately verified the valves were closed and capped in compliance with technical specifications.

On June 14, 1996, a re-evaluation of the previous position regarding reportability resulted in a determination that the condition was reportable under 10CFR50.73(a)(2)(i)(B). This was based on the fact that the penetrations were not surveilled in accordance with SR 3.6.3.3 and were therefore an example of a condition prohibited by technical specifications. SR 3.6.3.3 requires verification of closure for each containment isolation manual valve and blind flange that is located outside containment and is required to be closed during accident conditions. Although the "missed surveillance" provisions of SR 3.0.3 established the immediate operability of the components, it did not cover the reportability

aspect of failing to demonstrate the surveillance requirement established by SR 3.6.3.3.

EVENT EVALUATION

Penetrations 119 and 120 are original plant penetrations with blind flanges. SP-324 contains a valve checklist that includes PEN 119 and 120 and is required to be used for installation verification during each cold shutdown (MODE 5) if not performed within the previous 92 days. In addition, procedure SP-346 "Containment Penetrations Weekly Check During Refueling Operations" verifies these penetrations have the capabilities to be isolated, either with the blind flange or the modified flange. Also, there is no history of failures of these penetrations during "as found" testing conducted as part of 10CFR50 Appendix J "Primary Reactor Containment Leakage Testing for Water Cooled Power Reactors". In addition, the only work performed on Penetrations 119 and 120 would have been in conjunction with swapping flanges out to facilitate work in the RB. No other work history was evident based on a review of the computerized work request database. Therefore, there is reasonable assurance containment integrity was maintained with respect to these penetrations.

CAV-619 and CAV-622 (Penetration 439 - Pressurizer and RCS Sample Line Penetration) were installed by a plant modification to facilitate maintenance of the PASS system and turned over in November, 1991. A review of the testing history of these valves indicates they were verified closed during performance of Operating Procedure OP-419 "Liquid Sampling System Initial Valve Line Up" performed in conjunction with the noted outages in July 1992 (Refuel 8), April 1993 (Midcycle Outage 9), May 1994 (Refuel 9), and April 1996 (Refuel 10). A review of the work history for CAV-619 and CAV-620 revealed only one work request for CAV-619 performed November, 1993 to install a test gauge in support of Performance Test Procedure PT-448 "CAV-1, CAV-3, and CAV-126 Downstream Pressure Test". The clearance order associated with this test shows that CAV-619 was restored to the closed and capped position. Therefore, there is reasonable assurance containment integrity was maintained with respect to the penetrations associated with these valves.

AHV-24 (Penetration 113 - Reactor Building Purge Supply Penetration) was installed by a plant modification and turned over in April, 1993. The modification was to bring plant systems into conformance with an NRC Generic Task requiring double barrier protection for test, drain, and vent valves between containment isolation valves and penetrations. A review of the history of AHV-24 indicates it was added to Surveillance Procedure SP-177 "Local Leak Rate Test of AHV-1A thru 1D (RB Purge Exhaust and Supply Valves)" in April, 1993 when it was performed prior to startup. SP-177 requires AHV-24 to be in the closed position after completion of the test. SP-177 was also performed May, 1994 (Refuel 9) and April, 1996 (Refuel 10) in conjunction with the noted outages. Other than original installation, there is no work history noted for AHV-24. Therefore, there is reasonable assurance

containment integrity was maintained with respect to the penetration associated with this valve.

The affected valves were found in their normally closed and capped condition and met their intended safety function of maintaining containment integrity. In addition, the blind flanges for Penetrations 119 & 120 were found to be bolted in place. Based on the work history and test history of these components, there is no indication they were maintained in an incorrect position since installation. Therefore, although the proper frequency of verification was not established, the safety of the general public was not impacted by this event.

CAUSE

The primary cause of this event was an inadequate surveillance procedure. Contributing to the inadequate procedure were several personnel errors in failing to review all pertinent documents to obtain a clear understanding of their interrelationship. In attempting to understand all associated references, the newly assigned system engineer was able to identify discrepancies. A secondary cause of the event as noted below was inadequate corrective action for previous LER's which required a comprehensive review to correct deficiencies in SP-341.

For the purpose of determining cause(s), the five components discovered not adequately addressed by SP-341 were grouped into two categories: original plant penetrations; and those added to the plant via modifications.

Penetrations 119 and 120 are original penetrations installed with blind flanges and should have been identified and included in SP-341. Previous LER's 88-003 and 89-028 (see Previous Similar Events) reported the same type occurrence and attributed the condition to personnel error in failing to use an adequate level of detail to ensure all components were included. The required actions for these LER's were to validate and verify SP-341 to ensure applicable containment integrity "valves" are fully addressed. In this case, the emphasis appeared to be on "valves" which may have contributed to not identifying blind flanges.

CAV-619, CAV-622, and AHV-24 were added to the plant via modifications. Previous LER's 89-028 and 94-007 (See Previous Similar Events) reported the same type occurrence and attributed the condition to personnel error in failing to properly identify procedures requiring revision coincident with the installation of a plant modification. The action to prevent recurrence for LER 89-028 was apparently not effective for the modifications installed in 1991 and 1993. As further emphasis of this additional failure, it was noted that the "summary description" for the modification that installed CAV-619 and CAV-622 stated SP-341 would be revised by the responsible interpretation contacts. Although other procedures were revised via the procedure revision review process, SP-341 was apparently overlooked. These

valves would not have been identified as part of the corrective action for LER 94-007 since it did not require a complete re-validation of SP-341.

IMMEDIATE CORRECTIVE ACTION

All identified components were immediately verified to be installed in the correct configuration.

ADDITIONAL CORRECTIVE ACTION

Note: Unless otherwise indicated as complete, the below actions are intended to be accomplished by October 31, 1996:

1. As part of a complete re-validation of SP-341, the system engineer will continue to review pertinent documents to compare the boundary valves and blind flanges for each penetration with controlling documents including surveillance procedures, flow diagrams, Final Safety Analysis Report, structural drawings and design basis documents.

2. As the above review progresses, if additional missing components are identified, the SSOD will be notified for verification the component is in its technical specification-required configuration. If in the proper configuration, the SSOD will include the component in a Required Action Log to ensure it is surveilled every 31 days pending formal incorporation into SP-341. If the proper configuration is not found, the SSOD will take appropriate action to place the component in the appropriate configuration and take action as required.

3. SP-341 is currently in the revision process to incorporate the identified missing components and will be revised again as necessary depending upon the results of the above review.

ACTION TO PREVENT RECURRENCE

The complete verification and validation of boundary valves and blind flanges as noted above is expected to prevent the recurrence of components required but omitted from SP-341. The action plan for LER 94-007 refers to a standardized modification review program included in the Systems Engineering Manual. This process documents the method in which engineering personnel review modification documents to assure affected procedures are identified for revision. Considering the fact that Systems Engineering is the interpretation contact for SP-341, this action appears to be effective for containment integrity and no additional preventive action is planned. It should be noted that LER 94-007 refers to this

preventive action as being established by LER 94-004 which addresses a more generic issue with respect to reviews of modification packages for procedure revision.

PREVIOUS SIMILAR EVENTS

There have been three previous reportable events in which Reactor Building containment penetration surveillances were not performed as required due to inadvertent omission from the surveillance procedure. LER 88-003 discussed the failure to incorporate four containment isolation valves in SP-341 caused by an incomplete review of a Technical Specification amendment. LER 89-028 discusses six containment isolation valves discovered omitted from SP-341 attributed to inadequate review of a modification for procedure revision and an inadequate review of pending FSAR changes. LER 94-007 discusses two penetrations modified to include flanges and leak rate test valves that were not incorporated into SP-341. In addition to the above, LER 94-004 discusses failure to change surveillance procedures to reflect changes made via a modification to raise the Anticipated Transient Without Scram-Mitigation System Actuation Circuitry(ATWS-AMSAC) circuitry. Further discussion of these LER's appears in the Cause Section of this LER.

ATTACHMENT

None