



March 28, 2002

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Operating Licenses DPR-74  
Docket Nos. 50-316

Document Control Manager:

In accordance with the criteria established by 10 CFR 50.73 entitled Licensee Event Report System, the following report is being submitted:

LER 316/2002-001-00: "Containment Isolation Valve Alignment Error during Local Leak Rate Testing"

No new commitments are identified in this submittal.

Should you have any questions regarding this correspondence, please contact Mr. Gordon P. Arent, Manager, Regulatory Affairs, at 616/697-5553.

Sincerely,

A handwritten signature in cursive script that reads 'Eric A. Larsen' with a small 'SVP' written below it.

Joseph E. Pollock  
Site Vice President

JM/pae

Attachment

IE22

c: G. P. Arent  
A. C. Bakken  
L. Brandon  
J. E. Dyer, Region III  
R. W. Gaston  
S. A. Greenlee  
T. P. Noonan  
R. P. Powers  
M. W. Rencheck  
R. Whale  
NRC Resident Inspector  
Records Center, INPO

**LICENSEE EVENT REPORT (LER)**(See reverse for required number of  
digits/characters for each block)

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

**1. FACILITY NAME**

Donald C. Cook Nuclear Plant Unit 2

**2. DOCKET NUMBER**

05000-316

**3. PAGE**

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**4. TITLE**

Containment Isolation Valve Alignment Error During Local Leak Rate Testing

5. EVENT DATE			6. LER NUMBER				7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER	
01	26	2002	2002	--	001	--	00	03	28	2002	FACILITY NAME DOCKET NUMBER
9. OPERATING MODE			6	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)							
10. POWER LEVEL			0	20.2201(b)		20.2203(a)(3)(ii)		50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)	
				20.2201(d)		20.2203(a)(4)		50.73(a)(2)(iii)		50.73(a)(2)(x)	
				20.2203(a)(1)		50.36(c)(1)(i)(A)		50.73(a)(2)(iv)(A)		73.71(a)(4)	
				20.2203(a)(2)(i)		50.36(c)(1)(ii)(A)		50.73(a)(2)(v)(A)		73.71(a)(5)	
				20.2203(a)(2)(ii)		50.36(c)(2)		50.73(a)(2)(v)(B)		OTHER Specify in Abstract below or in NRC Form 366A	
				20.2203(a)(2)(iii)		50.46(a)(3)(ii)		50.73(a)(2)(v)(C)			
				20.2203(a)(2)(iv)		50.73(a)(2)(i)(A)		50.73(a)(2)(v)(D)			
				20.2203(a)(2)(v)		X	50.73(a)(2)(i)(B)	50.73(a)(2)(vii)			
				20.2203(a)(2)(vi)			50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)			
				20.2203(a)(3)(i)			50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)			

**12. LICENSEE CONTACT FOR THIS LER**

## NAME

Johnny Mathis, Regulatory Compliance

## TELEPHONE NUMBER (Include Area Code)

(616) 465-5901 x1578

**13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT**

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

**14. SUPPLEMENTAL REPORT EXPECTED**

YES (If Yes, complete EXPECTED SUBMISSION DATE).

X

NO

**15. EXPECTED  
SUBMISSION  
DATE**

MONTH

DAY

YEAR

**16. Abstract** (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On January 26, 2002, during refueling outage 13, 10 CFR 50 Appendix J, Type B and C leak rate testing was being performed in accordance with procedure 02-EHP-4030-234-203, "Unit 2 B & C Leak Rate." This procedure requires root shutoff valve 2-GPX-301-V1 [EII:SK:SHV] from the nitrogen supply manifold to be in the closed position for testing. When core alterations commenced, valve 2-GPX-301-V1 was thought to be tagged "Do Not Operate" in the closed position as required by procedure 02-OHP-4030-STP-041, "Refueling Integrity". Upon successful completion of the leak rate testing, an auxiliary equipment operator (AEO) found the root shutoff valve 2-GPX-301-V1 in the open position during the valve lineup restoration. This resulted in refueling integrity being lost while fuel movement was in progress. The control room was notified and core alterations were suspended. Based on investigation of this incident, the valve was mispositioned for approximately 10 hours. This breach of refueling integrity is prohibited by Technical Specification (TS) and is therefore reportable in accordance with 50.73(a)(2)(i)(B).

The cause of this event was failure to follow procedures. The AEO performing the initial valve lineup for testing opened valve 2-GPX-301-V1 and inappropriately pulled the "Do Not Operate" tag from the valve contrary to the requirements of plant procedures 02-EHP-4030-234-203 and 02-OHP-4030-STP.041.

Operations restored valve 2-GPX-301-V1 to the closed position, thereby re-establishing refueling integrity. A review of the completed B & C test lineups impacting refueling integrity was conducted and verified that no other loss of containment integrity had occurred during core alteration. A lessons learned memo was published and distributed to the auxiliary equipment operators. The human performance and personal accountability aspects of this issue have been appropriately addressed.

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

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**17. TEXT** (If more space is required, use additional copies of NRC Form (366A))

**Conditions Prior to Event**

Unit 1 - 100 percent power  
Unit 2 - MODE 6

**Description of Event**

On January 26, 2002, during reactor core offload for refueling outage 13, 10 CFR 50 Appendix J, Type B and C leak rate testing was being performed in accordance with procedure 02-EHP-4030-234-203, "Unit 2 B & C Leak Rate." Step 53 of the procedure provided valve lineup instructions for Type C leak rate testing of the nitrogen to pressurizer relief tank check valve 2-N-159. The auxiliary equipment operator (AEO) who performed the valve lineup for testing signed off the procedure step indicating that the root shutoff valve 2-GPX-301-V1 from the nitrogen supply manifold was "closed" as required by procedure. Upon successful completion of the test, the procedure requires a valve restoration lineup. The test was not impacted by the mispositioned valve. A different AEO who performed the restoration for the valve lineup noticed that valve 2-GPX-301-V1 was in the "open" position, thereby creating a potential direct access from the containment atmosphere to the outside atmosphere. Upon discovery, the control room was notified and core alteration was suspended.

A post event investigation of this incident revealed that the AEO who performed the initial valve line up for testing observed that valve 2-GPX-301-V1 was tagged "Do Not Operate Without SRO CA Permission" as required by procedure 02-OHP-4030-STP-041 for refueling integrity purposes. This AEO had been involved with previous testing that required the lifting of STP-041 tags. On January 26, 2002, the AEO performed the lineup which required valve 2-GPX-301-V1 to remain closed. He had a mind set from the previous day's activities that he needed to remove the STP 41 tag and open the valve. The AEO inappropriately removed the tag and opened the valve without verifying the required position of the valve for testing.

Technical Specification (TS) requirement 3.9.4.c requires that each containment penetration providing direct access from the containment atmosphere to the outside atmosphere be either closed by an isolation valve, blind flange, manual valve, or equivalent. The failure to verify valve 2-GPX-301-V1 closed during core alteration resulted in a breach of refueling containment integrity. This breach of refueling integrity is prohibited by TS and is therefore reportable in accordance with 50.73(a)(2)(i)(B).

**Cause of Event**

The cause of this event was failure to follow procedures. The AEO who performed the lineup for B & C leak rate testing opened valve 2-GPX-301-VI and inappropriately pulled the "Do Not Operate" tag from the valve contrary to the requirements of plant procedures 02-EHP-4030-234-203 and 02-OHP-4030.STP.041.

**Analysis of Event**

The Bases for TS 3.9.4.c states that the requirements on containment building penetration closure and operability ensure that a release of radioactive material within the containment will be restricted from leakage to the environment. The operability and closure restrictions are sufficient to restrict radioactive material release from a fuel element rupture based upon the lack of containment pressurization potential while in refueling mode.

Based on investigation of this incident the valve was mispositioned for approximately 10 hours. There was no impact on the health and safety of the public as a result of this event.

**Corrective Actions**

Upon discovery Operations restored valve 2-GPX-301-V1 to the closed position thereby re-establishing refueling integrity.

A review of the completed B & C testing lineups impacting refueling integrity was conducted and verified that no other loss of containment integrity had occurred during previous refueling operations.

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**17. TEXT** *(If more space is required, use additional copies of NRC Form (366A))*

The human performance and personnel accountability aspect of this issue have been appropriately addressed.

A lessons learned memo was published and distributed to the auxiliary equipment operators.

**Previous Similar Events**

None