



July 29, 2013

L-2013-205  
10 CFR 50.73

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Re: St. Lucie Unit 2  
Docket No. 50-389  
Reportable Event: 2013-002-00  
Date of Event: June 3, 2013

Failure to Invoke Technical Specification Action Statement for Failed Containment  
Isolation Valve

The attached Licensee Event Report 2013-002-00 is being submitted pursuant to the requirements of 10 CFR 50.73 to provide notification of the subject event.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Joseph Jensen', is written over the printed name.

Joseph Jensen  
Site Vice President  
St. Lucie Plant

JJ/lrb  
Attachment

JJ22  
NRL

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME St. Lucie Unit 2	2. DOCKET NUMBER 050000389	3. PAGE 1 OF 3
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4. TITLE  
Failure to Invoke Technical Specification Action Statement for Failed Containment Isolation Valve

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
06	03	2013	2013	002	00	07	29	2013	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE  1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)										
	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)							
10. POWER LEVEL  8%	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)							
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)							
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)							
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)							
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)							
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)							
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER							
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A							

12. LICENSEE CONTACT FOR THIS LER

NAME Lyle R. Berry - Principal Engineer, Licensing	TELEPHONE NUMBER (Include Area Code) 772-467-7680
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURE	REPORTABLE TO EPIX
A	BB	FSV	V030	YES					

14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE MONTH DAY YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On June 3, 2013 at approximately 2000, Unit 2 was in Mode 1 at 8 percent power. During monthly functional testing on the 2A hydrogen analyzer by Instrumentation and Controls (I&C) personnel, the containment dome sample valve did not close when the selector switch was placed in the "OFF" position. The valve was not recognized as a containment isolation valve (CIV) and consequently the applicable technical specification (TS) action statement to de-energize a downstream isolation valve within 4 hours was not entered. The downstream valve was however, in its normally closed position. Subsequently, the TS action statement was met by de-energizing the downstream valve.

This event is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications. Since the sample valve is designated as a Class E piping penetration, and is designed to be open during a design basis event, this event had no significant safety impact. An apparent cause evaluation identified that the cause was a human error in evaluating the impact to plant operation caused by the failure of the hydrogen analyzer CIV. Contributing causes included: 1) an inadequate procedure, and 2) ineffective hydrogen analyzer labeling. Corrective actions include: 1) revision of the hydrogen analyzer procedure, 2) re-labeling the hydrogen analyzers to clearly demonstrate that the valves on the hydrogen analyzer are CIVs, and 3) operator briefing on lessons learned from the event.

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CONTINUATION SHEET**

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**NARRATIVE**

**Description of the Event**

On June 3, 2013 at approximately 2000, Instrumentation and Controls (I&C) personnel were given permission by operations to begin the performance of the monthly functional test on the 2A hydrogen analyzer (EIIS: BB). Unit 2 was in Mode 1 at 8 percent power in the process of raising power following a forced outage. Upon completion of the functional test on the hydrogen analyzer at 2112, the containment upper dome sample valve (EIIS: BB) did not close when the sample point selector switch (EIIS: BB) was taken to "OFF". When informed by I&C of the condition, the Unit Supervisor (US) did not recognize the valve as a containment isolation valve, and consequently did not enter the associated technical specification (TS) action statement and complete the required action to de-energize a downstream isolation valve within 4 hours. The downstream valve was however, in its normally closed position. The dayshift operations crew recognized the condition and at approximately 0936 on June 4, 2013 the TS action statement was met by de-energizing the downstream valve by opening its breaker.

**Cause**

An apparent cause analysis identified that the cause was a human error in evaluating the impact to plant operation caused by the failure of the hydrogen analyzer containment isolation valve. Contributing causes included: 1) an inadequate procedure, and 2) ineffective hydrogen analyzer labeling.

**Analysis of Safety Significance**

The containment upper dome hydrogen sample valve is a containment isolation valve (CIV) designated as a Class E piping penetration, which is designed to be open during a design basis event. Thus by design this valve does not provide a barrier against the release of radioactivity during engineered safety feature system operation. CIVs of Class E, such as the subject sample valve, are not modeled in the St. Lucie Unit 2 Probabilistic Risk Assessment (PRA) and therefore, this event had no risk impact and no significant safety consequence. This containment isolation valve event is reportable pursuant 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications.

**Immediate Corrective Actions**

1. Failure of the containment upper dome hydrogen sample valve was re-evaluated and it was determined that Technical Specification 3.6.3 was applicable. At approximately 0936 on June 4, 2013 the TS action statement was complied with by de-energizing the inline hydrogen sample valve by opening its breaker. (COMPLETE)
2. Operations held a briefing for the department to document and share human performance lessons learned for the event. (COMPLETE)

**Additional Corrective Actions**

The corrective actions listed below are entered into the site corrective action program. Any changes to the actions will be managed under the corrective action program.

- 1) The hydrogen analyzer procedure will be revised to include information about containment isolation valves and TS implications concerning hydrogen analyzer maintenance.

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**NARRATIVE**

2) The hydrogen analyzer valves will be re-labeled to clearly demonstrate that the valves on the hydrogen analyzer are containment isolation valves.

**Similar Events**

A search and review of data in the St. Lucie Corrective Action Database addressing the past two years revealed no previous occurrences or similar events.

**Failed Component(s)**

ISOL VLV (PENETR P-48A) FOR CNTMT DOME AREA HYDROGEN SAMPLING

IEEE Class 1E

3/8" solenoid valve

Model V52600-515 (3/8")

**Manufacture**

Valcor Engineering Company