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NL-17-1597

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

Joseph M. Farley Nuclear Plant – Unit 1
Licensee Event Report 2017-001-00
Entry into Mode of Applicability with Component Cooling Water (CCW) Isolation Valve
Inoperable due to Configuration Error

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(i)(B), Southern Nuclear Operating Company is submitting the enclosed Licensee Event Report for Unit 1.

This letter contains no NRC commitments. If you have any questions, please contact Gene Surber, Licensing Supervisor, at 334-814-5448.

Respectfully submitted,

D. R. Madison
Vice President – Farley

DRM/RGS/cbg

Enclosure: Unit 1 Licensee Event Report 2017-001-00

cc: Regional Administrator, Region II
NRR Project Manager – Farley
Senior Resident Inspector – Farley
RTYPE: CFA04.054

**Joseph M. Farley Nuclear Plant – Unit 1
Licensee Event Report 2017-001-00
Entry into Mode of Applicability with Component Cooling Water (CCW) Isolation Valve
Inoperable due to Configuration Error**

Enclosure

Unit 1 Licensee Event Report 2017-001-00



LICENSEE EVENT REPORT (LER)

(See Page 2 for required number of digits/characters for each block)

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimates to the Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to infocoll@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NECB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an 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 Joseph M. Farley Nuclear Plant, Unit 1	2. DOCKET NUMBER 05000 348	3. PAGE 1 OF 3
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4. TITLE
Entry into Mode of Applicability with Component Cooling Water Isolation Valve Inoperable due to configuration error.

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
10	01	2016	2017	001	00	09	29	2017		05000
									FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE **11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check all that apply)**

3	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(I)	<input type="checkbox"/> 50.73(a)(2)(II)(A)	<input type="checkbox"/> 50.73(a)(2)(VII)(A)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(II)	<input type="checkbox"/> 50.73(a)(2)(II)(B)	<input type="checkbox"/> 50.73(a)(2)(VII)(B)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(III)	<input type="checkbox"/> 50.73(a)(2)(IX)(A)
	<input type="checkbox"/> 20.2203(a)(2)(I)	<input type="checkbox"/> 50.38(c)(1)(I)(A)	<input type="checkbox"/> 50.73(a)(2)(IV)(A)	<input type="checkbox"/> 50.73(a)(2)(X)
10. POWER LEVEL 000	<input type="checkbox"/> 20.2203(a)(2)(II)	<input type="checkbox"/> 50.38(c)(1)(II)(A)	<input type="checkbox"/> 50.73(a)(2)(V)(A)	<input type="checkbox"/> 73.71(a)(4)
	<input type="checkbox"/> 20.2203(a)(2)(III)	<input type="checkbox"/> 50.38(c)(2)	<input type="checkbox"/> 50.73(a)(2)(V)(B)	<input type="checkbox"/> 73.71(a)(5)
	<input type="checkbox"/> 20.2203(a)(2)(IV)	<input type="checkbox"/> 50.48(a)(3)(II)	<input type="checkbox"/> 50.73(a)(2)(V)(C)	<input type="checkbox"/> 73.77(a)(1)
	<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)(D)	<input type="checkbox"/> 73.77(a)(2)(I)
	<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)(VII)	<input type="checkbox"/> 73.77(a)(2)(II)
	<input type="checkbox"/> 50.73(a)(2)(I)(C)	<input type="checkbox"/> OTHER	Specify in Abstract below or in NRC Form 388A	

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT Gene Surber, Licensing Supervisor	TELEPHONE NUMBER (include Area Code) (334) 814-5448
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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
A	CC	ISV	N/A	Y	NA	N/A	N/A	N/A	N/A

14. SUPPLEMENTAL REPORT EXPECTED **15. EXPECTED SUBMISSION DATE**

YES (If yes, complete 15. EXPECTED SUBMISSION DATE) NO

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)
On July 31, 2017 with Unit 1 at 100% Rated Thermal Power it was identified that Q1P17HV2229-Norm/Block Switch (Norm/Block Switch) was out of position (aligned to the "SI BLOCK" position). This is a key operated switch which controls the operation of valve Q1P17HV2229 (HV-2229), Component Cooling Water (CCW) Supply to Sample Coolers. HV-2229 functions to automatically isolate the non-seismic portion of the CCW system which includes the Reactor Coolant System (RCS) Sample Coolers. The Norm/Block switch allows a Safety Injection (SI) signal to be blocked to allow alignment of CCW to the RCS Sample Coolers for post-accident sampling. The Norm/Block Switch was returned to normal position on August 1, 2017 at 0415.

HV-2229 also receives a closed signal on low level CCW Surge Tank which will override the Norm/Block switch regardless of position. Thus, in the event of an SI concurrent with a CCW leak, the safety function of CCW would have still been met. Since HV-2229 was blocked from closing and would not have met Surveillance Requirement (SR) 3.7.7.2 from October 29, 2016 (entry to MODE 4) to August 1, 2017, the station unknowingly operated in a condition prohibited by Technical Specifications which is reportable under 50.73(a)(2)(i)(B).

Corrective actions include procedure changes, communications and training to close knowledge gaps associated with system operation.



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

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1. FACILITY NAME Joseph M. Farley Nuclear Plant, Unit 1	2. DOCKET NUMBER 05000- 348	3. LER NUMBER		
		YEAR 2017	SEQUENTIAL NUMBER 001	REV NO. 00

NARRATIVE

EVENT DESCRIPTION:

On July 31, 2017 with Unit 1 at 100% Rated Thermal Power an operator was preparing to lift a clearance order on the Component Cooling Water (CCW) System. The operator noticed that the Q1P17HV2229-Norm/Block Switch (Norm/Block Switch) was not in the correct position. The Norm/Block Switch was not part of the clearance order. The Norm/Block switch allows a Safety Injection (SI) signal to be blocked to allow alignment of CCW to the Reactor Coolant System (RCS) Sample Coolers for post-accident sampling. The operator notified shift supervision.

An investigation was conducted to identify when the Norm/Block Switch was last manipulated. Based on interviews, records, and plant conditions it was determined that the most probable date the Norm/Block Switch was operated occurred on October 1, 2016 during chemistry sampling following a reactor trip. Farley Unit 1 began a refueling outage following this reactor trip.

EVENT CAUSE ANALYSIS:

An analysis of the event identified organizational shortfalls in both procedure quality and human performance. The Chemistry operating procedure for obtaining the RCS sample did not provide a method of maintaining configuration control for the Norm/Block Switch. Procedural guidance on the Norm/Block Switch operation was only located in the precautions and limitations portion of the procedure and not in the instruction portion of the procedure. Additionally, communication between the Chemistry Technician and the Control Room Supervisor (key control) was not sufficient because the Chemistry Technician did not understand system status or realize that operation of the Norm/Block switch was not required for sampling since the SI signal had been reset. The Chemistry Technician operated the Norm/Block Switch based on knowledge of the switch function obtained from reading the precautions and limitations. The Chemistry Technician left the switch in the "SI-Block" position when returning the key to the control room. Upon return of the key to the control room no challenge was provided on the configuration of HV-2229 or the Norm/Block Switch.

REPORTABILITY AND SAFETY ASSESSMENT:

The auto closure of HV-2229 during an SI is surveilled per Surveillance Requirement (SR) 3.7.7.2. This SR requires that "each CCW automatic valve in the flowpath that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal". The last scheduled performance of the surveillance testing of HV-2229 was performed April 4, 2015. Per SR 3.0.1, failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be a failure to meet the LCO. With the inability to automatically close HV-2229 on an SI signal due to the position of the Norm/Block Switch Farley Unit 1 unknowingly operated in a condition prohibited by Technical Specification upon entry into MODE 4 at 0632 on October 29, 2016. This condition is reportable under 50.73(a)(2)(i)(B).

This event would not have prevented CCW from meeting its safety function and has very low safety significance because HV-2229 also receives a closure signal from a CCW Surge Tank Low Level signal. The Low Level Surge Tank signal overrides the Norm/Block Switch regardless of position. Therefore, this event is not reportable for loss of safety function per 50.73(a)(2)(v).



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CONTINUATION SHEET**

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NARRATIVE

CORRECTIVE ACTIONS:

The cause of the event is that the manipulation of the Norm/Block Switch was not tracked using approved processes.

Barriers that broke down include;

1. Procedural guidance was not adequate for the task to maintain configuration.
2. Personnel knowledge level of the plant impact for performing the task did not meet standards.
3. Communications / Questioning attitude to obtain authorization were inadequate for the performance of the task.
4. The preparation and procedure use and adherence of the task was inadequate.

Farley has initiated corrective actions to address the organizational shortfalls and knowledge gaps associated with the event. This event was immediately communicated to the Department, Site and Fleet personnel. A training needs analysis is being conducted in Chemistry and Operations on the knowledge gaps and procedural guidance. The Site specific procedure for operation of the system has been revised to address configuration control of the Norm/Block switch.

PREVIOUS SIMILAR EVENTS:

None

OTHER SYSTEMS AFFECTED:

No systems other than those mentioned in this report were affected by this event.