

J. R. Johnson
Vice President - Farley

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August 13, 2007

Docket Nos.: 50-348
50-364

NL-07-1533

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

Joseph M. Farley Nuclear Plant Units 1 and 2
Licensee Event Report 2007-002-00

Error in Access Authorization due to Misread Badge and Biometrics Hand Reader

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 73.71(a)(4), Southern Nuclear Operating Company (SNC) is submitting the enclosed Licensee Event Report.

This letter contains no NRC commitments. If you have any questions, please advise.

Sincerely,

A handwritten signature in black ink that reads "J. R. Johnson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

J. R. Johnson
Vice President – Farley

JRJ/JWK/daj

Enclosure:

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cc: Southern Nuclear Operating Company
Mr. J. T. Gasser, Executive Vice President
Mr. J. R. Johnson, Vice President – Farley
Mr. D. H. Jones, Vice President – Engineering
RTYPE: CFA04.054; LC# 14617

U. S. Nuclear Regulatory Commission
Dr. W. D. Travers, Regional Administrator
Ms. K. R. Cotton, NRR Project Manager – Farley
Mr. E. L. Crowe, Senior Resident Inspector – Farley

Joseph M. Farley Nuclear Plant

Enclosure

Licensee Event Report

LICENSEE EVENT REPORT (LER)

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

Estimated burden per response to comply with this mandatory 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 and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@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 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 Error in Access Authorization due to Misread Badge and Biometrics Hand Reader
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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
07	11	2007	2007	- 002 -	00	08	13	2007	Farley Nuclear Plant Unit 2	05000 364
									FACILITY NAME	DOCKET NUMBER
										05000

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 100	<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 checked="" 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 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	
FACILITY NAME J. R. Johnson – Vice President	TELEPHONE NUMBER (Include Area Code) 334-899-5156

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT									
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED					15. EXPECTED SUBMISSION DATE		MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)					<input checked="" type="checkbox"/> NO				

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

On July 11, 2007 at 19:26 an authorized SNC employee's badge and hand geometry were both misread at the Farley Nuclear Plant (FNP) Primary Access Point Entry Reader. The system granted him Protected Area access based on another authorized SNC employee's data. This error was detected one minute later when a badge reader at a Vital Area door read the badge correctly and the system alarmed. The individual did not enter any Vital Areas under the incorrect identification. On July 12, 2007, at 10:10, after preliminary investigation, it was determined that the event was reportable. A one-hour report was made at 10:50 on July 12, 2007, per 10 CFR 73.71(a)(4).

The event was caused by a worn badge that, in combination with the nonzero error rate of the bar code badge reader and design threshold of the biometrics hand geometry reader, resulted in a false acceptance. Both readers have a small, but nonzero, false acceptance rate (FAR). The threshold of the hand readers has been lowered to reduce the FAR. The subject badge has been replaced. To further reduce the potential for misreads, all security badges will be changed out by September 30, 2007, and will be changed out, yearly, until the bar code readers are replaced with readers of a different type having an inherently lower FAR. The bar code reader system will be replaced by a reader system of a different type by June 1, 2008.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2) NUMBER	LER NUMBER (6)			PAGE (3)
Joseph M. Farley Nuclear Plant Unit 1	05000348	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2007	- 002	- 00	

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

Plant and System Identification

Westinghouse -- Pressurized Water Reactor
Energy Industry Identification Codes are identified in the text as [XX]

Description of Event

On July 11, 2007 at 19:26, an authorized SNC employee's badge and hand geometry were both misread at the Farley Nuclear Plant (FNP) Primary Access Point Entry Reader. The system [IA] granted the individual access to the Protected Area, based on another authorized SNC employee's data. This error was detected one minute later when a badge reader at a Vital Area door read the badge correctly and the system alarmed, at 19:27. The individual did not enter any Vital Areas under the incorrect identification. After preliminary investigation, it was determined, on July 12, 2007 at 10:10, that the event was reportable. A one-hour report was made at 10:50, on July 12, 2007, per 10 CFR 73.71(a)(4).

Cause of Event

The event was caused by a worn badge that, in combination with the nonzero error rate of the bar code badge reader and design threshold of the biometrics hand geometry reader resulted in a false acceptance. Both readers have a small, but nonzero, false acceptance rate (FAR). The "threshold" is a measure of how much variance of the hand geometry from template will be accepted by the biometrics hand reader. A lower threshold results in a lower false acceptance rate, but also a higher false rejection rate.

The biometrics hand reader is the industry standard. As originally installed, the expected FAR for the biometrics hand reader was approximately 0.1% at a threshold of 75 (based on the vendor test data). As a result of this event, a study of the reliability of the biometrics hand geometry readers was conducted. Attempts were made to recreate the event with various badges, individuals, and threshold settings. Tests of various hand geometry readers indicated this phenomenon was the result of system operating characteristics and not indicative of failure of any particular reader or the system software. As a result of this testing the global threshold was set conservatively at 50. Specific individuals having unusual hand geometry had their individual thresholds set at a maximum of 90.

Operating experience in recent years, subsequent to installation of the bar-code reader system, has indicated that other types of badge readers, notably magnetic strip or proximity, have lower misread rates than bar-code technology.

Safety Assessment

At the time of the event, the subject individual held a current, valid Unescorted Access Authorization to the FNP Protected Area, even though the system misread the badge and granted access based on another authorized individual's data. The individual did not enter any Vital Areas under the incorrect

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

identification. This is the only known instance in which a bar-code was misread as another individual's badge, with hand geometry similar enough between the individuals to allow a misread of the hand geometry as the same individual. Both conditions had to be met, simultaneously, to allow Protected Area access. In addition, a second card reader would have had to misread the bar code in the exact same manner to allow Vital Area access, based on another individual's data.

Therefore, Vital Area access was unaffected by this event. There was no adverse impact on the health and safety of the public.

Corrective Action

Compensatory measures to manually verify identification and authorization at the Primary Access Point have been established. Compensatory measures will remain in place until the bar-code reader system at the Primary Access Point has been replaced by a reader system of a different type.

As a result of this investigation, the global threshold of the biometrics hand readers was lowered to 50. Certain individuals having unusual hand geometry may have their individual thresholds set at a maximum of 90.

The subject badge has been replaced. To further reduce the potential for misreads, all security badges will be changed out by September 30, 2007, and will be changed out, yearly, until the bar code readers are replaced with readers of a different type having an inherently lower FAR.

The bar code reader system will be replaced by a reader system of a different type with a lower FAR by June 1, 2008.

Additional Information

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

As an enhancement, a monthly misread report will be generated to identify any badges that may need replacing.

Commitment information: This report does not create any permanent licensing commitments.

Previous similar events: The following LERs have been submitted in the last two years on similar security issues:

LER 2006-001-00 Security Access Control Software Deficiency