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Byron Station
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October 30, 2006

LTR: BYRON 2006-0121
File: 1.10.0101

United States Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

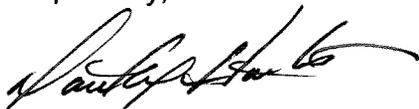
Byron Station, Units 1
Facility Operating License No. NPF-37
NRC Docket No. STN 50-454

Subject: Licensee Event Report (LER) 454-2006-003-00, "Inadvertent Exceeding of
Technical Specification Action Requirement Completion Time for Containment
Spray Additive System Due to Not Recognizing an Inoperable Condition"

Enclosed is an LER for the issue involving the September 1, 2006 inadvertent Technical Specification non-compliance for the Containment Spray Additive System. This condition is reportable to the NRC in accordance with 10 CFR 50.73 (a)(2)(i)(b).

Should you have any questions concerning this matter, please contact Mr. William Grundmann, Regulatory Assurance Manager, at (815)406-2800.

Respectfully,



David M. Hoots
Site Vice President
Byron Nuclear Generating Station

DMH/JEL/rah

Attachment LER 454-2006-003-00

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 Byron Station Unit 1	2. DOCKET NUMBER 0500454	3. PAGE 1 of 3
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4. TITLE Inadvertent Exceeding of Technical Specification Action Requirement Completion Time for Containment Spray Additive System Due to Not Recognizing an Inoperable Condition.

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
09	01	2006	2006	003	00	10	30	2006	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)									
10. POWER LEVEL 97%	<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)						
	<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)(vii)(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

FACILITY NAME Byron Station, William Grundmann, Regulatory Assurance Manager	TELEPHONE NUMBER (Include Area Code) (815) 406-2800
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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
N/A	N/A	N/A	N/A	N/A					

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 August 11, 2006, a Non-Licensed Operator (NLO) identified a leak on a weld on the upstream side of a Unit Containment Spray Additive Drain Isolation Valve (i.e., CS043A). Shift Management was notified and a Corrective Actions Program Issue Report (IR) was written. However, due to imprecise communications this was not recognized as an inoperable condition until September 1, 2006. The root cause was determined to be lack of reinforcement of operability considerations with Shift Management related to equipment related IRs. Corrective Actions include the development and implementation of a systematic methodology to improve the effectiveness of classroom and simulator training for operability determinations on IRs. In addition, a management standard that rewards behaviors associated with operability documentation/verification of that documentation related to equipment IR's. This condition had minimal safety consequences. The leak was characterized as a weeping type of leak (i.e., less than 1 drop per 5 minutes) and would have insignificant impact on the amount of caustic delivered to the CS system. This is reportable to the NRC in accordance with 10 CFR 50.73 (a)(2)(i)(b) as an event or condition that is prohibited by the TS.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

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Byron Station	0500454	2006	003	00	Page 2 of 3

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

A. Plant Condition Prior to Event:

Event Date: September 1, 2006

Unit 1 - Mode 1 – Power Operations, Reactor Power 97% (End of cycle coastdown)

Reactor Coolant System [AB]: Normal operating temperature and pressure.

Background

The Spray Additive System is a subsystem of the Containment Spray System [BE] (CS) that assists in reducing the iodine fission product inventory in the containment atmosphere resulting from a design basis accident. The Spray Additive System consists of one Spray Additive Tank, containing a sodium hydroxide solution, that is shared by two trains of spray additive flow paths into the CS pumps. The Spray Additive System is governed by Technical Specification (TS) 3.6.7, "Spray Additive System." If the Spray Additive System is inoperable, then Action condition "A" of this TS requires restoration of operability in 7 days. Otherwise, condition "B" requires Unit 1 (U1) to be in Mode 3 in 6 hours and Mode 5 in 84 hours.

B. Description of Event:

On Friday August 11, 2006, a Non-Licensed Operator (NLO) on day shift rounds identified a leak on a weld on the upstream side of the U1 "A" train Spray Additive Eductor Inlet Header Drain Isolation Valve (1CS043A). The NLO notified Shift Management and initiated a Corrective Action Program (CAP) Issue Report (IR). The IR stated that caustic solution appeared to be leaking from the top weld of the valve and the valve body had a caustic film on it. The NLO used a standard IR template for leaks of this nature.

Due to imprecise verbal communications concerning the issue, it was believed that the leak was from a mechanical joint, and not an ASME class pressure boundary leakage. Consequently, subsequent Shift Management review of the issue failed to properly consider the operability of the system.

Also, subsequent CAP IR committee reviews of this IR also failed to recognize the leak as being an ASME class boundary leakage and its impact on operability of the system. The IR was disposition as a normal work request.

On September 1, 2006, while discussing the repair plan of the leak on 1CS043A at the daily risk meeting, an engineering manager noted the repair plan included welding and challenged the current operability of the system.

At 1930 hours on September 1, 2006, engineering personnel confirmed a through wall weld leak on an ASME code component which rendered the Unit 1 Spray Additive System inoperable. TS 3.6.7, action condition "A" was immediately entered. The weld was repaired on September 2, 2006 and operability restored.

The Spray Additive System should have been recognized as inoperable on August 11, 2006. Consequently, a condition existed that is prohibited by TS in that Action conditions of TS 3.6.7 were not complied within the allowed completion times. This is reportable to the NRC in accordance with 10 CFR 50.73 (a)(2)(i)(b) as an event or condition that is prohibited by the TS.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
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C. Cause of the Event

The root cause was determined to be a lack of reinforcement by Operations Management of conducting accurate operability reviews of equipment issues.

Additional contributing causes include the generic IR template used for leaks which directs individuals to assume leaks are from a mechanical joint (which most are) and not a through wall leakage; and weaknesses in Shift Management communications.

D. Safety Analysis

This condition had minimal safety consequences. The leak was characterized as a weeping type of leak (i.e., less than 1 drop per 5 minutes). This would have insignificant impact on the amount of caustic delivered to the CS system. The tank level is monitored as a Main Control Board Indication. In addition, given the small size of noted flaw, and the lack of propagation mechanism for a crack to grow larger, a complete severance of drain line is not considered credible. The safety function of CS system was maintained from the time of discovery to the time of repair.

E. Corrective Actions

A systematic methodology will be developed and implemented to improve the effectiveness of classroom and simulator training for operability determinations on IRs.

A management standard will be developed and implemented that rewards behaviors associated with operability documentation/verification of that documentation related to equipment IR's.

The IR component leak template will be revised to improve human factoring for placement of operability information at the beginning of the IR with appropriate language to notify the Shift Manager immediately if leakage is from a NON-mechanical joint.

A case study will be developed covering the details of this event and presented in the operator License Operator Continuing Training Program.

F. Previous Occurrences

There have been no previous LER occurrences of this nature at Byron in previous 2 years.