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NINE MILE POINT
NUCLEAR STATION

December 23, 2011

U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

ATTENTION: Document Control Desk

SUBJECT: Nine Mile Point Nuclear Station
Unit No. 2; Docket No. 50-410

Licensee Event Report 2011-004, Reactor Water Cleanup System Automatic Isolation Function Disabled During Troubleshooting

In accordance with 10 CFR 50.73(a)(2)(v)(C), please find attached Licensee Event Report 2011-004, Reactor Water Cleanup System Automatic Isolation Function Disabled During Troubleshooting.

There are no regulatory commitments in this submittal.

Should you have questions regarding the information in this submittal, please contact John J. Dosa, Director Licensing, at (315) 349-5219.

Very truly yours,

MAP/GNS

Attachment: Licensee Event Report 2011-004, Reactor Water Cleanup System Automatic Isolation Function Disabled During Troubleshooting

cc:

NRC Project Manager
NRC Resident Inspector
NRC Regional Administrator

IE22
NRR

ATTACHMENT

LICENSEE EVENT REPORT 2011-004

REACTOR WATER CLEANUP SYSTEM AUTOMATIC ISOLATION FUNCTION DISABLED DURING TROUBLESHOOTING

Nine Mile Point Nuclear Station, LLC
December 23, 2011

NRC FORM 366 (10-2010) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013

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 estimate to the FOIA/Privacy Section (T-5 F53), 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.

LICENSEE EVENT REPORT (LER)

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

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4. TITLE

Reactor Water Cleanup System Automatic Isolation Function Disabled During Troubleshooting

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
									None	NA
10	24	2011	2011	004	0	12	23	2011	FACILITY NAME: None	DOCKET NUMBER: NA

9. OPERATING MODE

1

10. POWER LEVEL

100%

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

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☐ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☒ 50.73(a)(2)(v)(C)
- ☐ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

NAME	TELEPHONE NUMBER (Include Area Code)
John J. Dosa, Director Licensing	(315) 349-5219

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
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

14. SUPPLEMENTAL REPORT EXPECTED

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

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR
NA	NA	NA

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

On October 23, 2011, at 09:15, Nine Mile Point Unit 2 (NMP2) was operating at 100 percent of rated thermal power when the Division I reactor water cleanup system (RWCU) differential flow – high channel was declared inoperable due to failing its channel check. A troubleshooting plan was developed to determine the cause for the failed channel check. While performing the troubleshooting plan, at three separate times (October 24, 2011 at 01:52, 02:58, and 05:19), both the Division I and Division II RWCU differential flow timers were placed in bypass, and Technical Specification (TS) 3.3.6.1, Condition B was entered for one or more automatic functions with isolation capability not maintained. In each of the three instances, one channel of the RWCU differential flow – high function was restored to operable status within 1 hour as required by TS 3.3.6.1 Required Action B.1. In the morning of October 24, 2012 the oncoming crew recognized that bypassing both RWCU differential flow timers in this manner could have prevented the fulfillment of a safety function.

The cause of this event was human performance error. The operating crew became focused on the completion time associated with the LCO condition and never fully evaluated the Technical Specification Bases.

The crew involved in this event has been coached. An Operations department communication has been sent as a result of this event which reinforced the requirements of TS 3.0.2 Bases and the importance of an operating crew to use all available information with the Shift Manager as the single point of accountability. The RWCU system operating procedure has been revised to clarify the reportability requirements when removing both divisions of the RWCU high differential flow isolation from service. A training needs assessment has been initiated to determine if additional training is needed on TS Bases.

LICENSEE EVENT REPORT (LER)
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NARRATIVE

I. DESCRIPTION OF EVENT

A. PRE-EVENT PLANT CONDITIONS:

On October 23, 2011, at 09:15, NMP2 was operating at 100 percent of rated thermal power when the Division I reactor water cleanup system (RWCU) differential flow – high channel was declared inoperable due to failing its channel check.

B. EVENT:

On October 23, 2011, at 09:15, the Division I reactor water cleanup system (RWCU) differential flow – high channel was declared inoperable due to failing its channel check. A troubleshooting plan was developed to determine the cause for the failed channel check. While performing the troubleshooting plan, at three separate times (October 24, 2011 at 01:52, 02:58, and 05:19), both the Division I and Division 2 RWCU differential flow timers were placed in bypass, and technical specification (TS) 3.3.6.1, condition B was entered for one or more automatic functions with isolation capability not maintained. In each of the three instances, one channel of the RWCU differential flow – high function was restored to operable status within 1 hour as required by TS 3.3.6.1 Required Action B.1. In the morning of October 24, 2011, the oncoming crew recognized that bypassing both RWCU differential flow timers in this manner could have prevented the fulfillment of a safety function.

C. INOPERABLE STRUCTURES, COMPONENTS, OR SYSTEMS THAT CONTRIBUTED TO THE EVENT:

At the time of this event the Division I RWCU differential flow – high channel was inoperable due to failing its channel check.

D. DATES AND APPROXIMATE TIMES OF MAJOR OCCURRENCES

October 23, 2011

09:15 The Division I RWCU differential flow – high channel was declared inoperable.

October 24, 2011

0152 Operators placed the Division I and II RWCU delta flow timers in Bypass for troubleshooting.

0243 Operators placed the Division I and II RWCU delta flow timers in Normal.

0258 Operators placed the Division I and II RWCU delta flow timers in Bypass for troubleshooting.

0354 Operators placed the Division I and II RWCU delta flow timers in Normal.

0519 Operator placed the Division I and II RWCU delta flow timers in Bypass for troubleshooting.

0600 The oncoming crew questions the decision to place both divisions of RWCU delta flow timers in Bypass.

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NARRATIVE

0603 Operators placed the Division I and II RWCU delta flow timers in Normal.

0938 8 hour notification made to the NRC via the ENS phone line due to placing the Division I and Division II RWCU differential flow timers in bypass creating a condition which could have prevented the fulfillment of a safety function per 10CFR50.72(b)(3)(v)(C). Event Notification #47368.

E. OTHER SYSTEMS OR SECONDARY FUNCTIONS AFFECTED:

No other systems or secondary functions were affected by this event.

F. METHOD OF DISCOVERY:

At 0600 on October 24, 2011, the oncoming operators questioned the decision of the previous crew to place both RWCU delta flow timers in Bypass.

G. MAJOR OPERATOR ACTION:

At 0603 on October 24, 2011, operators placed the Division I and II RWCU delta flow timers in Normal.

H. SAFETY SYSTEM RESPONSES:

No safety system actuations were required or occurred as a result of this event.

II. CAUSE OF THE EVENT:

The cause of the event was human performance error. The operating crew became focused on the completion time associated with the LCO condition and never fully evaluated the Technical Specification Bases. The operating crew failed to apply a rigorous approach to evaluating the Technical Specifications and reportability requirements, using all the available information and resources. (CR-2011-009585)

III. ANALYSIS OF THE EVENT:

It was believed at the time of the troubleshooting evolutions that this condition was not reportable because it was a planned maintenance evolution performed in accordance with approved procedures and the plant TS. However, after further review, it was concluded that disabling both divisions of the RWCU differential flow – high function was an event or condition that could have prevented fulfillment of a safety function and therefore is a reportable condition in accordance with 10 CFR 50.72(b)(3)(v)(C).

It was also determined that the Bases for TS 3.0.2 was not fully evaluated when making the decision to remove both divisions of RWCU high differential flow isolations from service for troubleshooting. TS 3.0.2 Bases reads as follows:

"The Completion Times of the Required Actions are also applicable when a system or component is removed from service intentionally. The reasons for intentionally relying on the ACTIONS include, but are not limited to, performance of Surveillances, preventive maintenance, corrective maintenance, or investigation of operational problems.

Entering ACTIONS for these reasons must be done in a manner that does not compromise safety. Intentional entry into ACTIONS should not be made for operational convenience. Additionally, if intentional entry into ACTIONS would result in redundant equipment being inoperable, alternatives should be used instead."

Since both divisions of the high differential flow trip units were removed from service, the statement "Additionally, if intentional entry into actions would result in redundant equipment being inoperable, alternatives should be used instead" would be applicable and other means to troubleshoot the issue should have been implemented. An alternative would have been to remove RWCU from service and isolate the penetrations during troubleshooting.

There was no actual impact on nuclear safety at NMP2 from this event. The basis for this conclusion is that the safety function of the RWCU differential flow isolation is to mitigate a cold leg break in the RWCU system and the high energy isolation safety function remained available to perform this function. In addition, RWCU differential flow indication remained available in the control room allowing for manual isolation of RWCU from the control room if necessary.

The cause of the event was human performance error. The operating crew became focused on the completion time associated with the LCO condition and never fully evaluated the Technical Specification bases. The operating crew failed to apply a rigorous approach to evaluating the Technical Specifications and reportability requirements, using all the available information and resources.

IV. CORRECTIVE ACTIONS:

A. ACTION TAKEN TO RETURN AFFECTED SYSTEMS TO PRE-EVENT NORMAL STATUS:

At 0603 on October 24, 2011, Operators placed Division I and II RWCU delta flow timers in Normal.

B. ACTION TAKEN OR PLANNED TO PREVENT RECURRENCE:

Completed Actions:

An Operations department communication has been sent as a result of this issue which reinforced the requirements of TS 3.0.2 Bases and the importance of operating crew using all available information with the Shift Manager as the single point of accountability.

The operating procedure for the RWCU system has been revised to clarify the reportability requirements when removing both divisions of the RWCU high differential flow isolation from service.

Coaching has been provided to the crew involved in this event to reinforce the use of human performance tools, especially questioning attitude and applying a rigorous approach when evaluating Technical Specifications or reportability requirements.

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NARRATIVE

Planned Action:

A Training Needs Analysis will be performed to determine if additional training is needed on application of Technical Specification Bases.

V. ADDITIONAL INFORMATION:

A. FAILED COMPONENTS:

Component	Manufacturer	Model Number
None	NA	NA

B. PREVIOUS LERs ON SIMILAR EVENTS:

Nine Mile Point, Unit 2 LER 2002-002-00, Reactor Water Cleanup System Differential Flow Isolation Signal Inoperable.

C. THE ENERGY INDUSTRY IDENTIFICATION SYSTEM (EIIS) COMPONENT FUNCTION IDENTIFIER AND SYSTEM NAME OF EACH COMPONENT OR SYSTEM REFERRED TO IN THIS LER:

COMPONENT	IEEE 803 COMPONENT IDENTIFIER	IEEE 805 SYSTEM IDENTIFICATION	PART NUMBER
Reactor Water Cleanup System	FFS	CE	NA

D. SPECIAL COMMENTS:

None