



Monticello Nuclear Generating Plant
2807 W County Road 75
Monticello, MN 55362

December 22, 2010

L-MT-10-071
10 CFR 50.73

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Monticello Nuclear Generating Plant
Docket No. 50-263
License No. DPR-22

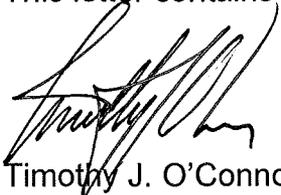
LER 2007-005, Revision 1, "Discovery of Appendix R – Non-compliant Manual Actions during Review of NFPA 805"

- References:
- 1) Letter from Nuclear Management Company to NRC, "LER 2007-05, Discovery of Appendix R – Non-compliant Manual Actions during Review of NFPA 805", dated August 30, 2007
 - 2) Letter from Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy to NRC, "Notice of Withdrawal of Letter of Intent to Transition to 10 CFR 50.48(c)", dated July 16, 2010
 - 3) Letter from NRC to NSPM, "Monticello Nuclear Generating Plant (MNGP) - Withdrawal from National Fire Protection Association Standard NFPA-805", dated October 22, 2010

A revision to the subject Licensee Event Report (LER) is attached. This revision reflects the withdrawal of the letter of intent to voluntarily implement 10 CFR 50.48(c) at Monticello Nuclear Generating Plant (MNGP).

Summary of Commitments

This letter contains no new commitments and no revisions to existing commitments.



Timothy J. O'Connor
Site Vice President, Monticello Nuclear Generating Plant
Northern States Power Company – Minnesota

Enclosure

cc: Regional Administrator, Region III, USNRC
Project Manager, Monticello Nuclear Generating Plant, USNRC
Resident Inspector, Monticello Nuclear Generating Plant, USNRC
Institute of Nuclear Power Operations

LICENSEE EVENT REPORT (LER)
 (See reverse for required number of digits/characters for each block)

1. FACILITY NAME: Monticello Nuclear Generating Plant
 2. DOCKET NUMBER: 05000 263
 3. PAGE: 1 of 4

4. TITLE: Discovery of Appendix R – Non-compliant Manual Actions during Review of NFPA 805

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	12	2007	2007	005	01	12	22	2010	FACILITY NAME	DOCKET NUMBER 05000
									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)	<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)
10. POWER LEVEL 100%	<input type="checkbox"/>	20.2203(a)(1)	<input type="checkbox"/>	20.2203(a)(4)	<input checked="" 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)(v)	<input type="checkbox"/>	50.73(a)(2)(i)(B)	<input type="checkbox"/>	50.73(a)(2)(v)(D)										
	<input type="checkbox"/>	20.2203(a)(2)(vi)														
												Specify in Abstract below or in NRC Form 366A				

12. LICENSEE CONTACT FOR THIS LER
 NAME: Leonard L. Sueper
 TELEPHONE NUMBER (Include Area Code): 612.330.6917

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

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

15. EXPECTED SUBMISSION DATE: MONTH: DAY: YEAR:

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

During performance of NFPA-805, Transition Project Task SUP-1, 'Manual Action Compliance,' it was determined that manual operator actions credited in IX/12-A Lower 4KV Room and XII/14-A Upper 4KV Room to achieve and maintain Appendix R hot safe shutdown are non-compliant. The manual actions provide supplemental ventilation to the 4KV rooms in order to assure continued operability of vital switchgear. These manual actions are specified in an Appendix R Section III.G.1/G.2 fire area; however, they do not meet the criteria for allowable manual actions specified in RIS 2006-10, 'Regulatory Expectations with Appendix R paragraph III.G.2 Operator Manual Actions.'

The cause of the event was prior to the issuance of RIS 2006-10, MNGP considered the manual actions to provide supplemental ventilation to the 4KV rooms acceptable. The RIS defined actions that the industry had considered acceptable, as non-compliant with Appendix R requirements and as a result MNGP's manual actions to provide supplemental ventilation to the 4KV rooms are not acceptable. The corrective action for this event is to evaluate the non-compliant manual actions as acceptable due to detailed fire modeling and/or risk assessment or to correct the non-compliant manual actions.

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DESCRIPTION

During performance of NFPA-805, Transition Project Task SUP-1, 'Manual Action Compliance,' it was determined that manual operator actions credited in IX/12-A Lower 4KV Room [EA] and XII/14-A Upper 4KV Room to achieve and maintain Appendix R hot safe shutdown are non-compliant. The manual actions provide supplemental ventilation to the 4KV rooms in order to assure continued operability of vital switchgear [SWGR]. The switchgear provides power to equipment needed to achieve and maintain hot safe shutdown. These manual actions are specified in an Appendix R Section III.G.1/G.2 fire area; however, they do not meet the criteria for allowable manual actions specified in RIS 2006-10, 'Regulatory Expectations with Appendix R paragraph III.G.2 Operator Manual Actions.' No system actuations occurred as part of this event. The ventilation system [VK] for the 4KV rooms is original plant design. This condition has existed since implementation of Appendix R.

The discovery of these manual actions was reported as an unanalyzed condition as defined by 10 CFR 50.72(b)(3)(ii)(B) and has been entered into the site's corrective action program. The compensatory measure for these areas is to perform the existing specified manual actions.

EVENT ANALYSIS

A fire induced loss of off site power, coincident with ambient temperature of 107°F or greater, may require supplemental ventilation for the upper and lower 4KV rooms within 3 hours in order to ensure Appendix R safe shutdown capability. The requirement for supplemental cooling was identified in 1991 when the Monticello Nuclear Generating Plant (MNGP) performed testing to determine the impact of extremely hot environmental conditions on plant equipment.

Recent issuance of RIS 2006-10 provided clarification of the regulatory expectations associated with the use of operator manual actions in III.G.1 and III.G.2 fire areas. This regulatory issue summary defines actions that the industry had considered acceptable, as non-compliant with Appendix R requirements. The manual actions necessary to provide temporary ventilation to the 4KV rooms are non-compliant actions as indicated by RIS 2006-10.

Because of the above, the event is reportable via a Licensee Event Report under 10 CFR 50.73(a)(2)(ii)(B) – an event or condition that resulted in an unanalyzed condition that significantly degraded plant safety.

The event is not classified as a safety system functional failure.

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

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Safety Significance

MNGP maintains administrative controls for the introduction of combustible materials and ignition sources to limit the probability of a fire. The 4KV rooms are provided with fire detection and temperature monitoring equipment. The manual actions, while non-compliant with RIS 2006-10, are proceduralized and provide assurance that hot safe shutdown can be achieved and maintained. Based on the administrative controls, fire detection, temperature monitoring, and the reasonable manual actions to supplement ventilation, the safety significance is considered low.

The safety significance of this event was reviewed by the Probabilistic Risk Assessment (PRA) department. The review considered the risk associated with the potential failure of a manual action that is currently credited to allow prolonged 4KV switchgear operation in the event of a fire that results in a loss of offsite power. This manual action involves the provision of temporary ventilation capability to the 4KV rooms to assure continued availability of vital switchgear.

The importance of credit given to manual actions intended to support critical switchgear operation in the event of a fire can be determined by considering the limited conditions under which failure of performance of these manual actions would result in fuel failure and potential subsequent offsite radiological release. These conditions must include all of the following:

- The occurrence of a fire initiator that results in a plant transient. This fire must be of sufficient magnitude and in a location that would result in an automatic reactor trip or conditions that would prompt the operations staff to manually shut down the reactor.
- The fire must cause a complete loss of normal offsite power, including both the 1R and 2R transformer supplies to bus 14, or must fail the power supply or equipment required to support cooling to the 4KV switchgear rooms. This equipment would include V-CH-27, V-MZ-1, V-EF-9, bus 14, LC-102, MCC-121, LC-108, or P105. The fire can not result in a station blackout as such an event would preclude the need for cooling in the 4KV switchgear rooms.
- The fire event must occur at a time where ambient temperatures in the 4KV switchgear areas are unusually high (in excess of 107°F).
- Operations staff must fail to implement the proceduralized process that establishes temporary cooling to the 4KV switchgear room(s). Critical switchgear room temperatures above 104°F will result in a control room alarm (Computer alarms V4K500 and V4K501). It is estimated that the operators will have at least 3 hours to establish supplementary ventilation in the 4KV rooms.
- Equipment and procedures intended to provide long term core cooling in the event of a station blackout (SBO) must fail. Reactor Core Isolation Cooling manual operation or fire system injection to the reactor are proceduralized methods to provide makeup to the reactor in a long term SBO event.

In conclusion, the safety significance is considered to be low.

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CAUSE

Prior to the issuance of RIS 2006-10, MNGP considered the manual actions to provide supplemental ventilation to the 4KV rooms acceptable. The regulatory issue summary defined actions that the industry had considered acceptable, as non-compliant with Appendix R requirements and as a result MNGP's manual actions to provide supplemental ventilation to the 4KV rooms are not acceptable.

CORRECTIVE ACTION

The non-compliant manual actions have been documented in the MNGP corrective action program. Subsequent to this event MNGP submitted a letter, dated July 16, 2010 (ML102000433), withdrawing MNGP's letter of intent to voluntarily implement 10 CFR 50.48(c).

Remediation of these conditions will be coincident with MNGP's Regulatory Guide 1.189 project. The Regulatory Guide 1.189 project will either evaluate the non-compliant manual actions as acceptable or the non-compliant manual actions will be corrected via physical changes to the plant.

FAILED COMPONENT IDENTIFICATION

None

PREVIOUS SIMILAR EVENTS

A review of station events found no events that were considered to be related to this event.