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10 CFR Part 50.73

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

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

LER 2008-006, "Loss of Normal Offsite Power due to Equipment Contact with 115KV Lines"

A Licensee Event Report (LER) for this occurrence is attached.

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 - Minnesota

Enclosure

cc: Administrator, Region III, USNRC
Project Manager, Monticello, USNRC
Resident Inspector, Monticello, USNRC

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NRC FORM 366 (9-2007)	U.S. NUCLEAR REGULATORY COMMISSION	APPROVED BY OMB NO. 3150-0104 EXPIRES 8-31-2010
LICENSEE EVENT REPORT (LER) (See reverse for required number of digits/characters for each block)		Estimated burden per response to comply with this mandatory information 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 Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@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 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.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
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TITLE (4) Loss of Normal Offsite Power due to Equipment Contact with 115KV Lines

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER 05000
09	17	2008	2008	– 006 –	00	11	14	2008	FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	4	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)							
			20.2201(b)		20.2203(a)(3)(ii)		50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)
POWER LEVEL (10)	0		20.2201(d)		20.2203(a)(4)		50.73(a)(2)(iii)		50.73(a)(2)(x)
			20.2203(a)(1)		50.36(c)(1)(i)(A)	X	50.73(a)(2)(iv)(A)		73.71(a)(4)
			20.2203(a)(2)(i)		50.36(c)(1)(ii)(A)		50.73(a)(2)(v)(A)		73.71(a)(5)
			20.2203(a)(2)(ii)		50.36(c)(2)	X	50.73(a)(2)(v)(B)		OTHER Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iii)		50.46(a)(3)(ii)		50.73(a)(2)(v)(C)		
			20.2203(a)(2)(iv)		50.73(a)(2)(i)(A)		50.73(a)(2)(v)(D)		
			20.2203(a)(2)(v)		50.73(a)(2)(i)(B)		50.73(a)(2)(vii)		
			20.2203(a)(2)(vi)		50.73(a)(2)(i)(C)		50.73(a)(2)(viii)(A)		
			20.2203(a)(3)(i)		50.73(a)(2)(ii)(A)		50.73(a)(2)(viii)(B)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Ron Baumer	763-295-1357

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

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

ABSTRACT

On September 17, 2008 at 0934 with the unit in a forced outage, the site experienced a Loss of Normal Off-site Power (LONOP) when man-lift equipment being serviced by a vendor came into contact with a 115 kV line. The loss of power resulted in a valid actuation of the Reactor Protection System (with reactor shutdown), Containment isolation resulting in a loss of normal shutdown cooling, and starting of the plant emergency diesel generators. The cause of the event was a portable man-lift contacting a 115 kV line causing the 1R transformer to trip with the 2R transformer out of service for repair, which resulted in a loss of normal off site power (LONOP). Corrective actions taken were to implement additional controls for the staging of equipment by supplemental personnel on site.

Event Description

At the Monticello Nuclear Generating Plant (MNGP), three transformers are provided to supply the plant with offsite power from the substation. All three sources can independently provide adequate power for the plant's safety-related loads. These transformers and their interconnections to the substation are as follows: The primary station auxiliary transformer (2R) is fed from a 345 KV Bus and underground cabling. The 2R transformer is of adequate size to provide the plant's full auxiliary load requirements. The reserve transformer (1R) is fed from a 115 KV substation via an overhead line. The 1R transformer is of adequate size to provide the plant's full auxiliary load requirements. The reserve auxiliary transformer (1AR) may be fed from two separate 13.8 KV sources. The 1AR transformer is sized to provide only the plant's essential 4160 Vac buses and connected loads.

On September 17, 2008, the plant was shutdown in a forced outage with the 2R transformer [XFMR] isolated and tagged out for repair. Off-site power was supplied via transformer 1R with 1AR and on-site diesel generators [DG] as backup power sources. At approximately 0934 a man-lift being serviced by a vendor came into contact with a 115 kV line [FK] line, de-energizing the 1R transformer and causing a Loss of Normal Off-site Power (LONOP). All equipment and systems performed as required. The site lost normal shutdown cooling for approximately 90 minutes as a result of the LONOP.

Event Analysis

The event was reported under 10 CFR 50.72(b)(3)(iv)(A) ESF Actuation. Therefore, the event is reportable under 50.73(a)(2)(iv) (A) "System Actuation," and a Licensee Event Report is required for this event. The event is also reportable under 50.73(a)(2)(v)(B) "Event or Condition that could have Prevented the Fulfillment of a Safety Function."

The event is considered a safety system functional failure since there was a loss or inability of a safety system (RHR) to remove decay heat.

Safety Significance

The station Probabilistic Risk Analysis (PRA) group reviewed the event and provided the following safety significance.

At the time of the transient the reactor had been shutdown for approximately five days, and all systems with the exception of the 2R transformer were available and capable of performing their intended function. Without any cooling available to remove decay heat, it is estimated that over 12 hours were available to restore cooling or makeup injection before water level would have boiled down to the top of active fuel. This time-to-uncover fuel is conservatively

calculated based on initial conditions of 70 inch reactor water level, 95°F reactor water temperature, and decay heat levels consistent with 130.5 hours following the reactor scram. A risk estimate was performed assuming no potential recovery for the 2R Transformer and a 90% recovery probability for the 1R Transformer. This approach is conservative in that recovery of any failed equipment would have the benefit of additional available time (more than twelve hours versus the normal ~0.5 hours to boil down to TAF) due to the relatively low decay heat level at the time of the transient. Results of the assessment indicated a Conditional Core Damage Probability (CCDP) of 3.76 E-07, and a Conditional Large Early Release Probability (CLERP) of 9.76 E-08.

In conclusion, based on the above information, the safety significance of this event was low.

Cause

The cause of the Loss of Normal Off-site Power was the portable man-lift equipment coming into contact with the 115 kV line resulting in the trip of the 1R transformer.

Corrective Action

The following corrective actions have been completed or are planned:

- There were no required station corrective actions from the standpoint of equipment performance.
- Due to the on-going OSHA and Station investigation into the associated vendor fatality, there have been no formal corrective actions taken to date. In the interim, the following actions have been taken:
  - All rental equipment will be delivered to the outage parking lot or inside the OCA with station personnel in attendance prior to unloading of any equipment. No allowances to unload equipment under the 115 kV lines.
  - Vendors were contacted regarding the equipment unloading restrictions.

Failed Component Identification

None

Previous Similar Events

None