



September 30, 2014

L-MT-14-077 10 CFR 50.73

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

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

LER 2014-009-00 "Both Emergency Filtration Trains Inoperable"

Enclosed is the Monticello Licensee Event Report (LER) 2014-009-00 concerning the inoperability of both trains of the Emergency Filtration system. This condition is reportable to the NRC in accordance with 10 CFR 50.73(a)(2)(v)(D), Event or Condition that Could Have Prevented Fulfillment of a Safety Function.

### Summary of Commitments

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

Karen D. Fili

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

#### APPROVED BY OMB: NO. 3150-0104 EXPIRES: 01/31/2017 NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION (02-2014) 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 and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by LICENSEE EVENT REPORT (LER) internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and (See Page 2 for required number of 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 digits/characters for each block) control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection 2. DOCKET NUMBER 1. FACILITY NAME 3. PAGE 05000-263 1 OF 3 Monticello Nuclear Generating Plant 4. TITLE Both Emergency Filtration Trains Inoperable 5. EVENT DATE 6. LER NUMBER 7. REPORT DATE 8. OTHER FACILITIES INVOLVED FACILITY NAME DOCKET NUMBER SEQUENTIAL REV монтн MONTH YEAR DAY YEAR DAY FACILITY NAME DOCKET NUMBER 08 05 2014 2014 - 009 - 00 09 30 2014 9. OPERATING MODE 11, THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) 50.73(a)(2)(vii) 20.2201(b) 20.2203(a)(3)(i) 50.73(a)(2)(i)(C)

20.2203(a)(2)(i) 50.36(c)(1)(i)(A) 50.73(a)(2)(iii) 50.73(a)(2)(ix)(A) 10. POWER LEVEL 20.2203(a)(2)(ii) 50.36(c)(1)(ii)(A) 50.73(a)(2)(iv)(A) 50.73(a)(2)(x) 20.2203(a)(2)(iii) 50.36(c)(2) 50.73(a)(2)(v)(A) 73.71(a)(4) 20.2203(a)(2)(iv) 50.46(a)(3)(ii) 50.73(a)(2)(v)(B) 73.71(a)(5) 88% 50.73(a)(2)(v)(C) OTHER 20.2203(a)(2)(v) 50.73(a)(2)(i)(A) Specify in Abstract below or in NRC Form 366A 50.73(a)(2)(v)(D) 20.2203(a)(2)(vi) 50.73(a)(2)(i)(B) 12. LICENSEE CONTACT FOR THIS LER LICENSEE CONTACT TELEPHONE NUMBER (Include Area Code)

20.2203(a)(3)(ii)

20.2203(a)(4)

50.73(a)(2)(ii)(A)

50.73(a)(2)(ii)(B)

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50.73(a)(2)(viii)(A)

50.73(a)(2)(viii)(B)

763-295-1357 Carrie Fosaaen, Licensing Engineer 13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT MANU-REPORTABLE MANU-REPORTABLE CAUSE SYSTEM COMPONENT CAUSE SYSTEM COMPONENT **FACTURER** В VI DMP A220 Υ 15. EXPECTED 14. SUPPLEMENTAL REPORT EXPECTED MONTH DAY YFAR SUBMISSION YES (If yes, complete 15. EXPECTED SUBMISSION DATE) DATE

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

20.2201(d)

20.2203(a)(1)

On August 5, 2014, the 'A' emergency filtration train (EFT) was out of service for charcoal filter replacement work; during that time 'B' EFT was placed in service to supply fresh filtered air to the Control Room. After the 'B' EFT had run for 12 minutes, a low flow alarm occurred and the 'B' EFT fan tripped. This resulted in both trains of emergency filtration being inoperable. Technical Specification Limiting Condition for Operation (LCO) 3.7.4 was not met and as a result, LCO 3.0.3 was entered at 16:01 hours which required the plant to be in Mode 4 within 37 hours.

The 'B' EFT fan tripped because the damper actuator failed due to poor quality of vendor refurbishment. The 'B' EFT trip caused the plant to enter LCO 3.0.3 due to the legacy operating procedure that permitted Operators to start the 'B' EFT while 'A' EFT was inoperable for maintenance.

The failed actuator was subsequently replaced and post maintenance testing was satisfactorily completed. The EFT procedures will also be revised to restrict operation of the standby train while in protected status.

APPROVED BY OMB: NO. 3150-0104

EXPIRES: 01/31/2017

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# LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

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 and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@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.

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#### NARRATIVE

#### **EVENT DESCRIPTION**

At the time of event, the plant was operating in Mode 1 at approximately 88% rated thermal power.

On August 5, 2014, the 'A' train of emergency filtration (EFT) was out of service for charcoal filter [FLT] replacement work. The 'B' EFT was placed in service at 14:34 hours to supply fresh filtered air to the Control Room.

At 14:46 hours the Control Room received a low flow alarm for 'B' EFT which initiated an automatic 'B' EFT fan [FAN] trip and damper [DMP] to close which isolated the filter train. This isolation resulted in both trains of EFT being inoperable. As a result, Technical Specification 3.7.4 was not met and Limiting Condition for Operation (LCO) 3.0.3 was entered at 16:01 hours.

LCO 3.0.3 was exited following successful completion of post maintenance testing on the 'A' train of EFT at 17:07 hours. There was no addition of negative reactivity to the reactor during the time the plant was in LCO 3.0.3.

#### **EVENT ANALYSIS**

This condition is being submitted in accordance with 10 CFR 50.73(a)(2)(v)(D) "Event or Condition that Could Have Prevented Fulfillment of a Safety Function." With both emergency filter trains inoperable, Control Room habitability would not have been assured should a radiological release have occurred. The emergency filtration safety trains mitigate the consequences of an accident by assuring Control Room habitability.

As a result of both trains of EFT being inoperable concurrently, this event is considered a safety system functional failure.

#### SAFETY SIGNIFICANCE

The EFT system has two functions. The first function is to allow manual isolation of outside air from the Control Room and first and second floors of the EFT Building which places the system in full recirculation. The second function is to automatically isolate outside air and provide filtered/pressurizing air to the Control Room and first and second floors of the EFT Building. With both filter trains inoperable, Control Room habitability may not have been maintained during an unfiltered radioactive release. During this events' time frame, Control Room breathing air supply system was available to provide three hours of air for up to eight personnel, but was not required to be used.

#### NRC FORM 366A

(02-2014)

## LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

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#### NARRATIVE

#### CAUSE

The 'B' EFT fan tripped because the damper actuator failed due to poor quality of vendor refurbishment. The damper actuator was in service (operating train) for approximately 250 hours prior to failure. Normal life expectancy for rebuilt actuators is greater than five years.

The 'B' EFT trip caused the plant to enter LCO 3.0.3 due to the legacy operating procedure that permitted Operators to start the 'B' EFT while 'A' EFT was inoperable for maintenance.

#### **CORRECTIVE ACTION**

The failed actuator was subsequently replaced and post maintenance testing was satisfactorily completed. The damper actuator has been returned to the vendor for failure analysis. Additional corrective actions may be required based on the results of those analyses.

The EFT procedures will also be revised to restrict operation of the standby train while in protected status.

#### PREVIOUS SIMILAR EVENTS

There were no previously similar Licensee Event Reports in the past three years.