



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 29, 2014

Karen D. Fili
Site Vice President
Monticello Nuclear Generating Plant
Northern States Power Company - Minnesota
2807 West County Road 75
Monticello, MN 55362-9637

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT – STAFF REVIEW OF REVISED LIMIT CURVES AND ADDITIONAL INFORMATION REGARDING THE REPLACEMENT STEAM DRYER ACOUSTIC AND STRUCTURAL ANALYSES IN SUPPORT OF EXTENDED POWER UPRATE POWER ASCENSION (TAC NO. MF3330)

Dear Mrs. Fili:

On December 9, 2013, the U.S. Nuclear Regulatory Commission (NRC) issued Amendment No. 176 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13316B298) to Renewed Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant (Monticello). The amendment authorized an increase in maximum licensed core thermal power from 1775 megawatts thermal (MWt) to 2004 MWt. This change in power level is considered an extended power uprate (EPU).

The NRC staff's approval of the Monticello EPU license amendment was based, in part, on the capability for Northern States Power Company - Minnesota (NSPM, the licensee) to monitor and evaluate any potential adverse flow effects on plant structures, systems, and components, including verifying the continued structural integrity of the replacement steam dryer (RSD), during the ascension to full EPU power. A license condition was added to the Monticello Renewed Facility Operating License to facilitate the review of the RSD acoustic and structural analysis data obtained during EPU power ascension.

The licensee collected and evaluated data collected at a core thermal power level of approximately 1864 MWt, corresponding to 105 percent of 1775 MWt. On March 20, 2014, this information was provided for NRC staff review in accordance with License Condition 15(a)3. The NRC staff questioned some of the data that was provided and discussed these concerns with your staff. A follow-up investigation by NSPM identified that errors existed in the steam dryer analyses. The impact of the errors and corrective actions were discussed with the NRC staff in a teleconference on May 30, 2014. NSPM also informed the staff that it would maintain maximum core thermal power at Monticello at or below pre-EPU conditions (i.e., 1775 MWt) until the analysis errors were corrected and a new set of limit curves submitted for NRC review and approval in accordance with License Condition 15(d).


In a letter dated September 22, 2014 (ADAMS Package Accession No. ML14269A321), NSPM provided its response to the NRC staff requests for additional information and clarification questions. NSPM provided a revised limit curve methodology for monitoring RSD performance during EPU power ascension. In addition, NSPM provided information regarding the actions

taken to correct errors identified in the previous analyses and recent steam dryer operability evaluations. The NRC staff has reviewed this information and determined that it provides reasonable assurance in supporting resumption of EPU power ascension at Monticello.

The NRC staff informed members of your staff of its determination in a teleconference held on October 28, 2014. The staff provided its conclusions regarding the technical information provided in the September 22, 2014, letter. NSPM discussed the human performance aspects related to the data collection, including the hardware and procedural errors and the failure to identify anomalous results attributed to these errors prior to submittal for NRC review. Based on its review of the information provided, the NRC staff considers that License Condition 15(d) has been met and has no current concerns or objections toward resumption of EPU power ascension at Monticello.

If you have any questions regarding this matter, please contact Terry Beltz at (301) 415-3049.

Sincerely,

A handwritten signature in black ink, appearing to read 'David L. Pelton', with a long horizontal line extending to the right.

David L. Pelton, Chief
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-263

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K. Fili

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If you have any questions regarding this matter, please contact Terry Beltz at (301) 415-3049.

Sincerely,

/RA/

David L. Pelton, Chief
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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