



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

April 9, 2014

Mr. Kevin K. Davison
Site Vice President
Prairie Island Nuclear Generating Plant
Northern States Power Company - Minnesota
1717 Wakonade Drive East
Welch, MN 55089

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT 1 - REVIEW OF THE
2012 STEAM GENERATOR TUBE INSPECTION REPORT (TAC NO. MF2302)

Dear Mr. Davison:

By letters dated June 21, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13172A344), and January 16, 2014 (ADAMS Accession No. ML14016A307), Northern States Power Company, doing business as Xcel Energy (NSPM) submitted information summarizing the results of the 2012 steam generator inspections at Prairie Island Nuclear Generating Plant (PINGP), Unit 1. These inspections were performed during the 28th refueling outage.

As discussed in the enclosed review, the U.S. Nuclear Regulatory Commission staff concluded that NSPM provided the information required by the PINGP technical specifications and did not identify any technical issues that warranted follow-up action at this time.

If you have any questions regarding this matter, please contact me at (301) 415-2855.

Sincerely,

A handwritten signature in black ink that reads "Scott P. Wall".

Scott P. Wall, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-282

Enclosure:
Review of the 2012 Steam Generator Tube
Inspection Report

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UNITED STATES NUCLEAR REGULATORY COMMISSION
REVIEW OF 2012 STEAM GENERATOR TUBE INSPECTION REPORT
PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT 1
DOCKET NO. 50-282

By letters dated June 21, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13172A344), and January 16, 2014 (ADAMS Accession No. ML14016A307), Northern States Power Company, doing business as Xcel Energy (the licensee), submitted information summarizing the results of the 2012 steam generator (SG) inspections at Prairie Island Nuclear Generating Plant (PINGP), Unit 1. These inspections were performed during the 28th refueling outage (1R28).

PINGP Unit 1 has two Framatome/AREVA model 56/19 replacement recirculating SGs. Each SG has 4,868 thermally treated Alloy 690 tubes which have an outside diameter of 0.750 inches and a nominal wall thickness of 0.043 inches. The tubes were hydraulically expanded at each end for the full depth of the tubesheet. The tubes are supported by tube support plates (TSPs) and anti-vibration bars (AVBs). All TSPs are constructed from Type 410 stainless steel. The TSPs have a minimum thickness of 1.18 inches and have quatrefoil-shaped holes through which the tubes pass. The AVBs are constructed from Type 405 stainless steel and are rectangular in cross section (0.5 inches by 0.3 inches).

The licensee provided the scope, extent, methods, and results of the PINGP Unit 1 SG tube inspections in the documents referenced above. In addition, the licensee described corrective actions (e.g., tube plugging) taken in response to the inspection findings.

Based on its review of the reports submitted, the U.S. Nuclear Regulatory Commission (NRC) staff has the following observations and comments:

- During the 2012 steam generator tube inspections, three tubes that had been plugged in during a previous outage were unplugged and inspected to see how both repeat and new indications in the unplugged tubes compared against indications seen in in-service tubes. The depth of new indications in the unplugged tubes was bounded by the depth of new indications in in-service tubes, and the growth of repeat indications in unplugged tubes was similar (slightly higher) to the growth of repeat indications in in-service tubes.

Based on a review of the information provided, the NRC staff concludes that the licensee provided the information required by their technical specifications. In addition, the NRC staff concludes that there are no technical issues that warrant follow-up action at this time, since the inspections appear to be consistent with the objective of detecting potential tube degradation and the inspection results appear to be consistent with industry operating experience at similarly designed and operated unit.

Enclosure

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Sincerely,

/ RA /

Scott P. Wall, Senior Project Manager
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*via memo dated 2/11/14

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