

JUN 12

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DOCKET NO. 50-263

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Mr. D. M. Musolf
 Nuclear Support Services Department
 Northern States Power Company
 414 Nicollet Mall - 8th Floor
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Dear Mr. Musolf:

SUBJECT: REQUEST FOR RELIEF FROM ASME B&PV CODE SECTION XI
 PRESSURE TEST REQUIREMENTS (TAC 61449)

RE: Monticello Nuclear Generating Plant

By letters dated May 6 and May 23, 1986, the Northern States Power Company (NSP) requested relief from the pressure testing requirements of IWA-4400 of Section XI of the ASME Code 1980 Edition, Winter 1980 Addenda which the NSP has determined to be impractical to perform.

The staff has completed review of your request as stated above and has determined that the performance of these pressure tests after repair and examinations are impractical and will grant relief for this outage. The hydrostatic pressure test as required by the Code is still to be performed during this 10 year inspection interval.

The Safety Evaluation supporting our findings is enclosed.

Rajender Auluck, Project Manager
 BWR Project Directorate #1
 Division of BWR Licensing

Enclosure:
 Safety Evaluation

cc w/enclosure:
 See next page

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Mr. D. M. Musolf
Northern States Power Company

Monticello Nuclear Generating Plant

cc:

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
SAFETY EVALUATION REPORT RELATED TO

REQUEST FOR RELIEF FROM INSERVICE PRESSURE TEST REQUIREMENTS

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

INTRODUCTION

The Technical Specification for the Monticello Nuclear Generating Plant states that inservice examination of ASME B&PV Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the Code and applicable addenda as required by 10 CFR 50.55(g) except where specific written relief has been granted by the Commission. The Examination Program for Unit 1 is based upon the requirements of the 1980 Edition with the addenda through the Winter of 1980. Certain requirements of this Edition and Addenda of Section XI are impractical to perform on older plants because of the plants' design, component geometry, materials of construction or the need for extensive temporary modifications and the resultant substantial radiation exposure to plant personnel.

By letter of May 6, 1986, the Northern States Power Company (NSP) requested relief from the pressure test requirements of the Code after the replacement or repair and examination of certain sections of pipe in the Class 1 systems. NSP provided additional information and justification for the request in a letter dated May 23, 1986.

Requests For Relief

Relief is requested from the pressure test requirements of IWA 4400 of Section XI of the ASME Code, 1980 Edition, Winter 1980 Addenda after repair or replacement of the following Class 1 items:

- (a) Safe-end replacement in the Core Spray System (14 x 8 inch OD carbon steel safe-ends). Also replace 8 inch OD stainless steel pipe with carbon steel pipe.
- (b) Replace Control Rod Drive 4 inch stainless steel nozzle cap.
- (c) Reroute 2 and 3 inch OD carbon steel Main Steam drain lines.

ASME Code ISI Class 1 Requirements

Article IWA-4400 of the ASME Code specifies a 110% of operating pressure hydrostatic test to be performed following repairs by welding on the pressure retaining boundary.

Basis For Relief Request

Monticello has eight three stage Target Rock safety/relief valves installed on the main steam line. Conducting the post-repair vessel hydrostatic at 110% of operating pressure will require the removal of the safety relief valves, installation of covers, and removal of the covers (blind flanges) and replacement following the test. The valves must be removed or gagged because the set point for relief/safety is set at 1080 psig by the Technical Specifications.

The only gagging device design and procedure available involves the bonnet cap removal, introduces the possibility of set pressure adjusting ring disruption. The licensee states that it is neither desirable or prudent to introduce the possibility of setpoint error through the use of a gagging device. From a review of past exposure history records removal of the safety/relief valves and the associated work required would result in an exposure of eight to ten person rem to the station personnel.

Valve removal and replacement would require approximately six days to accomplish, three of which will be on the outage critical path. It will result in additional costs of roughly \$600,000.

Licensee's Proposed Alternate Examinations Or Tests

The licensee proposes to perform a hydrostatic test at 100% (1000 psig) of operating pressure in lieu of the Code required 110% (1100 psig) of operating pressure. To supplement this hydrostatic test, the following non-destructive examination will be performed as follows:

- (a) Core Spray System safe-end replacement: Visual (VT), penetrant (PT), radiographic (RT), and ultrasonic (UT) examination of butt welds and VT, PT or magnetic particle (MT) examination of socket welds.
- (b) Control Rod Drive Nozzle: VT, PT, RT and UT of weld.
- (c) Main Steam Drain Lines: VT, PT or MT of socket welds.

EVALUATION

The above repaired or replaced piping cannot be hydrostatically tested to the ASME Code requirements without removing or modifying the safety/relief valves. As required by the Technical Specifications three of eight three-stage Target Rock pressure relief/safety valves have an opening/closing set at 1072/972 psig. This is below the Code required hydrostatic test pressure. Removing the safety/relief valves would result in excessive

radiation exposure to the maintenance staff. The staff agrees with the licensee that using an untested design device and procedure for gagging the valves would result in an unacceptable risk of set pressure ring disruption. The alternative examinations of VT, PT, MT, RT and UT proposed by the licensee are adequate to determine the structural integrity of the repaired and replaced piping and welds.

CONCLUSION

Based on the above evaluation, the staff has determined that it is impractical to perform the hydrostatic test at the Code required pressure after the repair and replacement of the piping in the above cited systems. The staff finds that complying with required test pressure during this outage does not provide commensurate gain in the safety of the plant considering the burden that would be placed on the plant if the extra 100 psig were imposed. The staff concludes that the alternative hydrostatic test plus the additional non-destructive examinations give reasonable assurance of the piping pressure boundary integrity. The staff further concludes that granting relief, for this outage only, were Code requirements are impractical is authorized by law and will not endanger life or property, or the common defense and security and is otherwise in the public interest. Code required regular hydrostatic pressure test is required during this 10 year inspection interval. Granting relief is recommended.

Principal Contributor: B. Turovlin