



Northern States Power Company

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U S Nuclear Regulatory Commission
Region III
799 Roosevelt Road
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MONTICELLO NUCLEAR GENERATING PLANT
DOCKET NO. 50-263 LICENSE NO. DPR-22

In response to your letter of April 12, 1985, concerning Inspection Report No. 50-263/84036 (DRS), the following information is offered related to the two noncompliance items and the two unresolved items cited in the report:

Violation

Monticello Technical Specifications 6.5.C paragraph 1 requires detailed written procedures, including the applicable check-off lists and instructions covering routine testing of Engineering Safeguards and equipment as required by the facility license and Technical Specifications, be prepared and followed.

10 CFR Part 50, Appendix B, Criterion V as implemented by the Monticello Quality Assurance Plan, requires "activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings ... instructions, procedures or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished."

Contrary to the above the procedures required to implement the leak rate testing required by Technical Specifications and 10 CFR 50, Appendix J were not appropriate in that:

- a. Part B in procedure Number 136, Revision 5 did not adequately describe the type of data reduction method to be used for the primary containment integrated leak rate test, nor did it contain adequate acceptance criteria for any data reduction method that could be used. Additionally, Appendix E of the procedure incorrectly described the data

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reduction method the licensee wished to use (BNTOP-1, Total Time method).

- b. Procedure Test Number 137, Revision 12 allowed an unacceptable method to be used to total or sum the total leakage rate required by Technical Specification 4.7.A.2 for testable penetrations and isolation valves.

Response Part A

Appendix E of the Monticello Integrated Leak Rate Test Procedure describes three methods of data reduction: the point to point method, mass plot method, and the total time method. All three data reduction methods were used for the test with the intention of conducting a short duration test, as permitted by the Technical Specifications, if this was possible. If this was not possible, the test duration would be extended to at least 24 hours. A short duration test is permissible if the requirements of Bechtel Topical Report BN-TOP-1 are satisfied. If a short duration test was not possible, a test lasting at least 24 hours would be performed using the methods described in ANSI/ANS 56.8-1981. BN-TOP-1 methodology uses the total-time method of data reduction and ANSI/ANS 56.8-1981 uses the mass plot method of data reduction.

We believe the procedure adequately described the type of data reduction methods that were used in the test.

Our review of the procedure, however, found that temperature stabilization criteria of BN-TOP-1 were not included. The criteria from ANSI/ANS 56.8-1981 were included, however. During the test it was noted that the stabilization criteria of BN-TOP-1 were met prior to meeting the criteria of ANSI/ANS 56.8-1981. Many of the other acceptance criteria of BN-TOP-1 were not quoted in the test procedure. However, equivalent requirements were in place in most cases. The test procedure was found to contain two inaccuracies in the description of the 95% confidence interval calculation for the total time method. The computer program used in the data reduction correctly performed this calculation, however.

All of the procedure deviations discussed above were corrected through temporary changes to the integrated leak rate test procedure prior to the start of data taking.

Response Part B

This item is essentially the same as the second noncompliance item contained in the inspection report and will be discussed below.

Violation

Monticello Technical Specification 4.7.A.2 paragraph f requires the total leakage rate for double-gasketed seals be demonstrated to be less than 34.4 standard cubic foot per hour (SCFH) and the total leakage rate for testable penetrations and isolation valves except main steam isolation valves be demonstrated to be less than 103.2 scfh.

Contrary to the above, the licensee failed to demonstrate that the total leakage rate for penetrations and isolation valves was less than the Technical Specification allowable. Prior to startup the licensee made repairs and adjustments to make sure that the technical specification requirements were met.

Response

The inspector has interpreted Monticello Technical Specification 4.7.A.2 to require the sum of all individual leakage measurements to be less than the penetration total specified in the Technical Specifications. These totals are considerably more conservative than the requirements of 10 CFR Part 50, Appendix J and predate the issuance of Appendix J by the Commission.

In a penetration with two isolation valves, the inspector indicates that the proper interpretation of the Technical Specification requirement is that both valve leakages be added into the penetration total. We do not believe this is the intended interpretation of this requirement. Technical Specification changes are currently being drafted for submission to the Office of Nuclear Reactor Regulation to clarify this matter and conform the Technical Specifications to the requirements of Appendix J.

Prior to startup, additional maintenance work was performed to bring the total leakage into conformance with the inspector's interpretation of the technical specification requirement.

Unresolved Item No. 1

Unresolved item (263/84026-01(DRS)) identified concerns that we have relative to venting and draining non-seismic Class 1 systems that penetrate primary containment for Type A tests. In your response to this inspection report, please include a list of the systems penetrating containment which were not vented and drained outside of containment for the 1984 CILRT

with the justification used to not vent and drain these systems.

Response

The Appendix J requirement for ensuring that all containment penetrations are exposed to test differential pressure has been met in the past at Monticello by venting the reactor coolant system (which is assumed to rupture in an accident) to the containment atmosphere. Piping outside containment was assumed to remain intact following an accident. A combined loss of coolant accident and simultaneous failure of lines outside containment, from an earthquake perhaps, was not considered credible. Many older plants are not designed for the extremely unlikely load combination of loss of coolant plus design basis earthquake.

Attached to the inspection report was a copy of a memorandum written to R C Lewis, Region II, in 1981 which provides an NRC I&E interpretation of this requirement. We had previously not been provided with this interpretation, which requires draining and venting of non-seismically design systems. Prior to the next integrated leak rate test we will revise the test procedure to include the guidance in this memorandum. We believe guidance of this nature, however, should not be used in the enforcement process unless it was previously distributed to the licensee.

To address draining and venting concerns for the 1984 integrated leak rate test, a penetration vent penalty was added to the Type A 95% upper confidence level measured leak rate as reported in our March 29, 1985 report entitled, "Reactor Containment Building Integrated Leak Rate Test Report." This penalty included all ECCS, non-ECCS, seismic, and non-seismic systems that were not vented during the test.

Unresolved Item No.2

Unresolved item (263/84026-07(DRS)) as contained in Section 7 of the report pertains to the "as is" or as found condition of the containment. It is the NRC's position that the containment failed the as found integrated leak rate test in 1980. In your response to this inspection report please report the as found 1984 test results. For future Type A tests we expect you to abide by the as found test requirement of 10 CFR 50, Appendix J, III.A and ANSI N45.4, Paragraph 4.2, and if a test fails we expect you to follow the requirements of Appendix J, III.A.6 and Technical Specification 4.7.A.2.a.2.

Response

This unresolved item is also based on an interpretation that differs from what has been accepted for many years.

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This interpretation involves the timing of containment integrated leak rate tests with respect to repairs on local penetrations. It has been our policy to conduct integrated leak rate tests at the end of refueling outages to provide assurance that the unit is being returned to service with a tight containment following a period of extensive maintenance and the opening of containment penetrations and hatches.

The inspector has indicated that Appendix J should be interpreted to require an "as found" integrated leakage rate test. A strict interpretation of this requirement would mean conducting integrated leak rate tests at the beginning of the outage. This is not the preferred course of action.

The NRC Office of Nuclear Reactor Regulation clarified this matter in a memorandum to Mr James Snizek in 1982. A copy of this memorandum was provided to us for the first time with the inspection report. We will revise our procedures prior to the next integrated leak rate test to incorporate the guidance in this memorandum.

We do not believe, however, that this is a significant safety issue. Type B and Type C tests performed each refueling outage are the primary means of assuring the leak tightness of piping penetrations, hatches, and other containment attachments. Type A tests are performed about every third outage and have the primary purpose of assuring that containment shell weld seams and other structural parts of the containment which cannot be locally tested are leak tight. Correcting the Type A test results with the difference between as-found and as-left Type B and Type C leakage totals has the punitive effect of increasing the frequency of Type A testing without addressing the problem of excessive Type B and Type C leakage.

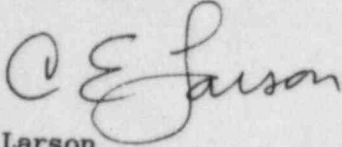
As-found 1984 local leak rate test results were reported to the NRC in our March 29, 1985 report.

Other Matters

The Appendix J exemption requests identified as desirable by the inspector will be drafted and submitted to NRR for review and approval as well as the Technical Specification changes discussed above. This will be completed in approximately 90 days.

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We welcome the opportunity to discuss these issues with you in more detail. Please contact us if you have any questions related to our response.

A handwritten signature in cursive script, appearing to read "C E Larson".

C E Larson
Vice President Nuclear Generation

c: Regional Administrator-III, NRC
Resident Inspector, NRC
G Charnoff