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 Office of Nuclear Reactor Regulation, Director (Post 870411)

SUBJECT: Forwards Rev 7 to updated FSAR for Monticello Nuclear
 Generating Station & Rev 13 to operational QA plan.

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 TITLE: OR Submittal: Updated FSAR (50.71) and Amendments

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June 30, 1989

Submitted pursuant
to 10 CFR 50.71(e)

Director
Office of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555

MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Submittal of Revision No. 7 to the Updated Safety Analysis Report (USAR)

Pursuant to 10 CFR 50.71(e) we are submitting 13 copies of Revision No. 7 to the Updated Safety Analysis Report (USAR) for the Monticello Nuclear Generating Plant. This revision updates the information in the USAR for the period from January 1, 1988 through December 31, 1988.

Exhibit A contains a description and summary of the safety evaluation for changes, tests and experiments made under the provisions of 10 CFR 50.59 during this period.

Exhibit B contains the USAR page changes and instructions for entering the pages.

Included in Exhibit B is Revision 13 to the Northern States Power Company Operational Quality Assurance Plan in compliance with 10 CFR 50.54(a). Changes in Revision 13 to the plan are described in Exhibit A (Item 14, page 4) of this letter.

Thomas M Parker
Manager Nuclear Support Services

c: Regional Administrator-III, NRC
NRR Project Manager, NRC
Resident Inspector, NRC
G Charnoff (w/o Exhibit B)

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Attachments

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PDR ADOCK 05000263
K PDC

Exhibit A

MONTICELLO NUCLEAR GENERATING PLANT

ANNUAL REPORT OF CHANGES, TESTS AND EXPERIMENTS - DECEMBER 1988

The following sections include a brief description and a summary of the safety evaluation for those changes, tests and experiments which were carried out without prior NRC approval, pursuant to the requirements of 10CFR50.59(b).

1. MOD 79-062, Torus Wide Range Level Indicators

Description of Change:

Installed two redundant torus level transmitters to existing recorders in panel C-03.

Summary of Safety Evaluation:

Each level system uses materials and components that meet the original design specifications. The systems are used for indication only and will not affect Scram and ECCS functions.

2. MOD 84-078, Hydrogen Water Chemistry

Description of Change:

Installed a Hydrogen Water Chemistry System that consists of a cryogenic hydrogen tank and cryogenic oxygen tank supplying gas to the feedwater system and the offgas system respectively via buried pipe. Hydrogen is injected into the reactor feedwater pumps proportional to reactor power. Hydrogen recombines with dissociated oxygen in the vessel to reduce the oxidizing environment and mitigate Intergranular Stress Corrosion Cracking. Oxygen is injected into the off-gas system in proportion to the hydrogen injection rate to form a stoichiometric mixture in the off-gas system upstream of the offgas recombiner.

Summary of Safety Evaluation:

This modification was installed as non-safety, non-QA, related except at interfaces with safety related components. Safety concerns which were evaluated and verified to be within the plant design basis include the location and installation of the hydrogen and oxygen storage tanks with respect to potential blast effects, equipment environmental qualification, maintaining off-gas concentrations at less than 28% oxygen and 4% for hydrogen, resetting main steam line radiation monitors, thermal stress evaluation of feedwater pump injection points, and the additional production of water through addition of hydrogen and oxygen. The NRC issued a safety evaluation addressing the Monticello Hydrogen Water Chemistry System on January 7, 1988.

3. MOD 85-032, Chemistry Laboratory/Access Control Modification

Description of Change:

Excavated the crawl space under the existing Administration Building and constructed a new new chemistry laboratory, count room and chemistry shift office.

Summary of Safety Evaluation:

This modification is non-safety related and non-QA related. The design complies with commercial building codes and conforms to standard detailing already used in the plant.

4. MOD 86-026, High Energy Line Break

Description of Change:

This project modified the the following lines in the turbine building: C4A-16-GB and C4B-16-GB between the feedwater pumps and the E-13 feedwater heaters; and FW2A-14-DE and FW2B-14-DE between the feedwater pumps and the E-14 feedwater heaters. The modifications allowed the elimination of "arbitrary" breaks in a critical plant area.

Summary of Safety Evaluation:

The governing code for this modification is ASME, Section XI, 1977 Edition with addenda through Summer 1978. Design and construction of the modification complies with "Power Piping", ANSI B31.1, 1977 with addenda through Summer 1978 and the requirements of the 1972 NRC Giabusso letter.

5. MOD 86-029, Rod Worth Minimizer Replacement

Description of Change:

Replaced the Honeywell 4040 Rod Worth Minimizer (RWM) with a General Electric Nuclear Measurement Analysis and Control (NUMAC) RWM. The NUMAC RWM is designed to perform the same functions as the original RWM with improved reliability and operator interface.

Summary of Safety Evaluation:

The GE NUMAC RWM enforces rod pattern control in the same way and to the same nuclear design criteria as the Honeywell RWM. The GE NUMAC RWM is more reliable than the Honeywell RWM and the probability of occurrence of malfunction should be decreased. Any malfunction of the GE NUMAC RWM will have consequences identical to those which would result from a malfunction of the Honeywell RWM.

6. MOD 87-012, Instrument Air Dryer Replacement

Description of Change:

Replaced the existing air dryer (S4) with Pall Pneumatics heatless air dryer.

Summary of Safety Evaluation:

This modification does not reduce the margin of safety to the plant since equipment requiring compressed air for operation during or immediately subsequent to an accident is supplied from local accumulators or other air sources. The new dryer is designed to provide filtered dry air with -40°F dewpoint for saturated inlet air at 100°F. This meets or exceeds the requirements of components served by the instrument air system.

7. MOD 88-002, Installation of Electromagnetic Locks on EFT Blast Doors

Description of Change:

Electromagnetic locks were installed on each of Emergency Filtration Treatment (EFT) Blast Doors. Existing alarm features were duplicated with the use of the electromagnetic locks.

Summary of Safety Evaluation:

The modification does not decrease the safeguards effectiveness of the Security Plan. The modification maintains the blast resistant integrity of the doors/frames, the seismic qualification of the door/frames, and the fire protection rating of the door/frames.

8. MOD 88-004, Latch Position Switch for Doors

Description of Change:

Installed electric strike latch bolt monitoring switches for two doors.

Summary of Safety Evaluation:

The modification provides alarm indication that the doors are not properly latched. This feature enhances the assessment capability of the security force. In conforming to existing standards regarding electrical locking features and alarm supervision the modification meets the requirements of the existing access System.

9. MOD 88-017, Removal of Emergency Filter Train Load Sequencing on the Emergency D/G Time Delay Relays

Description of Change:

During a loss of offsite power, the Emergency Filter Train (EFT) System loads were originally designed to sequence onto the Emergency Diesel Generators automatically via a series of time delay relays. A total of ten loads (five per division) ranging from 1 to 50 horsepower sequenced on in this manner. To increase the reliability of these EFT loads during diesel generator loading, the time delay relays were removed so that all EFT loads are loaded onto the diesel during the initial loading sequence.

Summary of Safety Evaluation:

The ability of the diesel generators to accept the resulting higher initial loading, the effect of simultaneous load starts on EFT operability, and the effect on fuse/breaker coordination have all been analyzed and found to be acceptable. An interlock was removed thus allowing both divisions of EFT loads to be powered by a single division during periods of load-center maintenance when the "down-train" load center is fed from the adjacent train through strict administrative procedures. Removal of the interlock has been reviewed and has been determined to have no adverse impact.

10. MOD 88-026, Torus Room Public Address System Installation

Description of Change:

Installed public address system components in the torus room to enable the use of plant paging in the torus room.

Summary of Safety Evaluation:

This modification is neither safety related or QA related. However, since new components are located above seismic related components, all components and conduit was installed to Seismic Category II over I specifications. Existing penetrations were utilized. The effects of adding additional amplifiers on circuit loading, fuse/breaker coordination, and battery loading have been reviewed and have been found to be acceptable.

11. SRI 88-005, Furmanite Repair of RCIC Valve AO 13-22

Description of Change:

A Furmanite repair of RCIC testable check valve AO 13-22 was performed to stop a steam leak located at the valve body to hinge pin cover bolted connection. This temporary repair required the removal of one means of valve position indication. This valve position indication will be restored during the permanent repair of AO 13-22.

Summary of Safety Evaluation:

This method of repair was evaluated for impact on system operation and compliance with Power Piping Code B31.1. The evaluation concluded that this repair techniques was acceptable.

12. SRI 88-008, Justification for Increase of RCIC Turbine Exhaust Instantaneous Trip Setpoint

Description of Change:

Increased the RCIC turbine high exhaust pressure instantaneous trip setpoint from 40 psig to 50 psig. This change improves system reliability by increasing the margin to the trip setpoint for short term transients.

Summary of Safety Evaluation:

The BWR Owners' Group Evaluation of RCIC Turbine Exhaust Pressure Trip for LOCA Application (NEDE-22017) evaluated the impact of this change on both offsite and onsite radiological doses. The change at Monticello does not effect the anticipated release rates from the RCIC system or the thermal and mechanical stresses on the RCIC exhaust line during steady state operation.

13. SRI 88-010, Locked Valve Alignment

Description of Change:

Implemented standardized locked valve criteria.

Summary of Safety Evaluation:

Plant safety is not affected by this change since valve positions have not changed. Changes were made to the locked status of some valves and/or the type of locking device.

14. Revision 13 to the Operational Quality Assurance Plan

Revision 13 to the NSP Operational Quality Assurance Plan was internally reviewed and approved May 25, 1989. We have concluded that this revision does not reduce the commitments of NSP's Operational

Quality Assurance Program and does not adversely impact the safe operation of the nuclear power plants. Specific changes with reason for the change and basis for concluding no reduction in commitments [per 10 CFR 50.54(a)(3)] are presented in Appendix D to the plan. The Operational Quality Assurance Plan, Revision 13, is included in Appendix C to the USAR.