June 21, 2001

Mr. J. Sorensen Site Vice President Prairie Island Nuclear Generating Plant Nuclear Management Company, LLC 1717 Wakonade Drive East Welch, MN 55089

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT NRC INSPECTION REPORT 50-282/01-12(DRS); 50-306/01-12(DRS)

Dear Mr. Sorensen:

On June 8, 2001, the NRC completed an inspection at your Prairie Island Nuclear Generating Plant. The enclosed report documents the inspection findings which were discussed on June 8, 2001, with Mr. M. Werner and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Specifically, the inspection focused on permanent plant modifications.

No findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <u>http://www.nrc.gov/NRC/ADAMS/index.html</u> (the Public Electronic Reading Room).

Sincerely,

/RA by John Jacobson Acting For/

Ronald N. Gardner, Chief Electrical Engineering Branch Division of Reactor Safety

Docket Nos. 50-282; 50-306 License Nos. DPR-42; DPR-60

Enclosures: 1. Inspection Report 50-282/01-12 (DRS) 50-306/01-12 (DRS)

2. Prairie Island Modification Inspection Document Request

See Attached Distribution

J. Sorensen

Plant Manager, Prairie Island cc w/encl: R. Anderson, Executive Vice President and Chief Nuclear Officer Site Licensing Manager Nuclear Asset Manager J. Malcolm, Commissioner, Minnesota Department of Health State Liaison Officer, State of Wisconsin Tribal Council, Prairie Island Indian Community J. Silberg, Esquire Shawn, Pittman, Potts, and Trowbridge A. Neblett, Assistant Attorney General Office of the Attorney General S. Bloom, Administrator Goodhue County Courthouse Commissioner, Minnesota Department of Commerce

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DOCUMENT NAME: C:\Program Files\Adobe\Acrobat 4.0\PDF Output\pra01-12 drs.wpd To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

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J. Sorensen

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: License Nos:	50-282, 50-306 DPR-42, DPR-60
Report No:	50-282/01-12 (DRS); 50-306/01-12 (DRS)
Licensee:	Nuclear Management Company, LLC
Facility:	Prairie Island Nuclear Generating Plant
Location:	1717 Wakonade Drive East Welch, MN 55089
Dates:	June 4 through June 8, 2001
Inspectors:	H. Walker, Team Leader Z. Falevits, Inspector D. Jones, Inspector
Approved by:	Ronald N. Gardner, Chief Electrical Engineering Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000282-01-12(DRS), IR 05000306-01-12(DRS), on 06/04 - 06/08/2001, Nuclear Management Company, LLC, Prairie Island Nuclear Generating Plant. Evaluation of Permanent Plant Modifications Report.

The report covers a five day announced inspection, conducted by three Region III based reactor inspectors. No findings of significance were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609 "Significance Determination Process" (SDP). The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <u>http://www.nrc.gov/NRR/OVERSIGHT/index.html</u>. Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violations.

A. Inspector Identified Findings

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

No findings of significance were identified.

Report Details

Summary of Plant Status

Unit 1 was at 100 percent power throughout the inspection period. Unit 2 was shutdown for repairs for three days of the inspection but was restarted on 06/07/01 and was at 100 percent power at the end of the inspection on 06/08/01.

1. **REACTOR SAFETY**

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R17 Permanent Plant Modifications (71111.17)

.1 <u>Review of Recent Permanent Plant Modifications</u>

a. <u>Inspection Scope</u>

The inspectors reviewed eleven permanent plant modifications that had been installed during the last two years. The modifications were chosen based upon the effect on systems that had high probabilistic risk analysis significance in the licensee's Individual Plant Evaluation or high maintenance rule safety significance. The modifications were reviewed to verify that the completed design changes were in accordance with specified design requirements and the licensing bases and to confirm that the changes did not affect the modified system or other systems' safety function. Twelve calculations, which were performed or revised to support modifications, were also reviewed. Design and post-modification testing aspects were reviewed to verify the system, and associated support systems functioned properly. The inspectors also verified that the completed modifications did not place the plant in an increased risk configuration.

In addition to the above, the inspectors reviewed the control and evaluation of replacement material, parts, and components. Records for four Substitute Part/Component Equivalency Evaluation items and five commercial grade evaluation items were reviewed to verify that the replacement material, parts and components had been properly evaluated to ensure that they would adequately perform required safety related functions. Evaluations should verify that the replacements would meet functional, environmental, and seismic requirements and were compatible with other plant structures and components. In addition the actions on the replacement items were reviewed to verify that use of the modification process was not required and that inspections and tests necessary to determine the acceptability of the replacement parts were satisfactorily completed.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed a selected sample of condition reports associated with Prairie Island's permanent plant modifications to verify that the licensee had an appropriate threshold for identifying issues and to verify the effectiveness of corrective actions for the identified issues. Licensee assessments and audits in this area were also reviewed to verify and evaluate licensee problem identification.

b. Findings

No findings of significance were identified.

40A6 Meetings

Exit Meeting

The inspectors presented the inspection results to Mr. M. Werner and other members of licensee management at the conclusion of the inspection on June 8, 2001. The licensee acknowledged the findings presented. No proprietary information was identified.

KEY POINTS OF CONTACT

<u>Licensee</u>

- T. Allen, General Superintendent of Engineering (NGS)
- T. Amundson, General Superintendent of Engineering (Plant)
- T. Breen, Nuclear Performance Assessment Engineer
- J. Chitty, Superintendent of Business Support
- G. Gore, Superintendent Civil/Mechanical Engineering
- J. Kivi, Licensing Engineer
- L. Vale, Quality Assurance Engineer
- M. Werner, Plant Manager

<u>NRC</u>

S. Thomas, Resident Inspector

LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection, including documents prepared by others for the licensee. Inclusion on this list does not imply that NRC inspectors reviewed the documents in their entirety, but, rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion on this list does not imply NRC acceptance of the document, unless specifically stated in the inspection report.

Modifications/Design Change Packages

86L951 97FP26 97ZN02 98FP01 98RV06 99DC03 99EB01 99SF02 99SI02 99SI02 99SI03 00RH01	Limitorque L.S. Rotor Contact Changes Diesel Generator Source Breaker Modification Control Room Air Handler Damper Replacement MOV Hot Short Full Length Control Rod Drive Mechanism Lower Canopy Seal Weld Overlay 125 VDC Circuit Relocation Project 1T1/1T2 Transformer Switches Replace 122 Spent Fuel Pool Heat Exchanger Re-Power RHR Sump B Suction Valves Nitrogen Supply to Accumulator Install Trolley Beams for RHR Pits	Revision 0 Revision 0
Calculations		
ENG-CS-132 ENG-CS-144-2	Seismic Criteria for Control Room Dampers, CCHX End-Bell Lifting Device Trolley	Revision 0.
ENG-CS-186	Beam 1 and 2 Unit 1 Condenser Storage Pit Ladder/Guard	Revision 0.
ENG-EE-018	Rail/Jib Crane Revision Diesel Generator Sequence Loading for an SI	on 0.
ENG-EE-021	Event Occurring with a Loss of Offsite Power (LOOP) for D1, D2, D5 &D6 Diesel Generator Sequence Loading for an SI Event Occurring with a Loss of Offsite Power	May 13, 1994
ENG-EE-045	(LOOP) for D1, D2, D5 &D6 Diesel Generator Steady State Loading for a Loop	Revision 2.
ENG-EE-127	Coincident with an SBO Cable Sizing Calculation for Six Motor Valves for	Revision 3.
ENG-EE-128 ENG-EE-133	Project 98EB02 DC Voltage Drop Calculation for 98ZN04 Thermal Overload and Circuit Breaker Sizing for	Revision 0 September 16, 1999
ENG-ME-405	MOV-32180 and 32181	May 5, 2000
	Damper Supports in Mechanical Equipment	
ENG-ME-430	Damper Supports in Mechanical Equipment Room AB Nitrogen Injection for RCS Drain Down Emergency Diesel Generator Fuel Oil	Revision 0. Revision 0.

Procedures

5AW1 6.1.0	Design Change General	Revision 3	
Condition Reports (written as a result of this inspection)			
20014898	Follow-up to NRC Inspection questions, evaluate the application of the SPCE process relating to PI facility changes	June 7, 2001.	
Design Related Con	dition Reports (written prior to this inspection)		
19992604 19993183	Steam Exclusion Boundary Block Walls Line numbers 3,4, and 5 of Purchase Order 1020SQ had different part numbers than the	September 3, 1999	
19993184	requisition without a SPCE being issued Failure to prepare a formal design change or equivalency evaluation for 121/122 control room	November 10, 1999	
20000512	chiller room dead bolts Concrete anchors did not meet the final	November 10, 1999	
20000804	embedment depth specified Engineering was planning to perform an unauthorized modification utilizing the work	March 2, 2000	
20002461	control process Installation of Fire Damper VFD-62 has taken an excessive amount of time to complete due to	March 23, 2000	
20003060 20004336	poor design and preparation D1/D2 load sequence DC power supply The welding outlet in the north warehouse was wired incorrectly, which led to damage to the	June 29, 2000 August 17, 2000	
20004811	cask transport vehicle pump Reactor makeup flow transmitters for Volume Control Blenders are inaccurate, obsolete and	October 10, 2000	
20011357	need to be replaced Feedwater flow control valve solenoid valves	October 27, 2000	
20012995	incorrectly downgraded to commercial grade by safety evaluation #386 Modification self-assessment recommended	February 8, 2001.	
20012000	actions to improve modification process	March 30, 2001	
Substitute Part/Component Equivalency Evaluation			
ME-0164 ME-0220	RCP Seal Return MOV Motor Upgrade Change of material for the Pressurizer PORV	February 4, 2000	
ME-0314 ME-0336	Diaphragm High Temperature O Rings for RCP Seals Charging Pump Drive Shaft Keyway Dimensions	March 20, 2000 March 14, 2000 July 25, 2000	

Commercial Grade Evaluation

CGE # PI-0052	Containment Penetration Blank Flange "O" Rings	Revision 2
CGE # PI-0151	Framatome-Burndy Calibration Service	Revision 2
CGE # PI-0204	MKS Instrument, Inc. Calibration Services	Revision 1
CGE # PI-0261	CC Heat Exchanger Relief Valve Piece Parts	
	Consolidated Series 1975/1970	Revision 1
CGE # PI-0315	Velan 8" Globe and Gate Valves	Revision 0

Self-Assessments and Audits

AG2000-E-1	Internal Audit of Modifications	January 31 to March 31, 2000
Modification Process	Effectiveness Self-Assessment	Report Issued March 31, 2001

Enclosure

PRAIRIE ISLAND MODIFICATION INSPECTION

INITIAL DOCUMENT REQUEST (Sent to Resident/Licensee on 4/5/01)

I. Inspection Preparation Information

The following information will be needed to prepare for the biennial permanent plant modifications inspection, which is scheduled to be conducted at Prairie Island from June 4 through June 8, 2001. Please provide the requested information by Friday, May 25, 2001, to facilitate the selection of items for review during the onsite inspection week.

- Current Plant Organization Charts.
- Design Change and modification procedures including post modification testing.
- List of permanent plant modifications to risk significant SSCs involving:
 (a) permanent plant changes; (b) design changes; (c) set point changes;
 (d) equivalency evaluations; (e) suitability analyses; (f) calculations; (g) commercial grade dedications.
- Provide copies of Q. A. audits, self-assessments and outside organization audits conducted on design changes and permanent plant modifications with any associated condition reports generated as a result of these activities. ¹
- <u>List</u> of condition reports (open and closed) written to address plant design problems or modification issues or concerns. ¹
- List of setpoint changes. ¹

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Provide information requested going back two years.

II. Information to be Provided or Available During the Inspection

Copies should be provided where specified. For example, the specific information selected for review during the preparation week and requested should be available for review on the first day of the on-site inspection. Other documents listed in this section should be readily <u>available</u> and easily accessible to the inspectors but do not need to be solely available for the inspection team's use only.

- The specific information selected for review during the inspection preparation week should be available and ready for review on the first day of the on-site inspection.
- Copies of any self-assessments and associated condition reports generated in preparation for the permanent plant modifications inspection.
- Copies of the list of questions submitted by the team members and the status/resolution of the information requested (provide to the team leader daily during the inspection).
- Copies of Condition Reports generated during this inspection as a result of the team's findings.
- Updated Final Safety Analysis Report
- Plant Technical Specifications (TSS)
- Latest IPE/PRA report
- Vendor manuals and equipment qualification binders to be available on request.