December 7, 2000

Mr. J. Sorensen Site General Manager 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 50-282/00-18(DRS); 50-306/00-18(DRS)

Dear Mr. Sorensen:

On November 17, 2000, the NRC completed a routine inspection at your Prairie Island Nuclear Generating Plant. The enclosed report presents the results of that inspection. The results were discussed on November 17, 2000, with Mr. D. Schulke and other members of your staff.

This inspection was an examination of 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. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel. Specifically, the inspector reviewed the occupational radiation safety instrumentation program.

Based on the results of this inspection, 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 and its enclosure 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 <a href="http://www.nrc.gov/NRC/ADAMS/index.html">http://www.nrc.gov/NRC/ADAMS/index.html</a> (the Public Electronic Reading Room).

J. Sorensen

We will gladly discuss any question you have concerning this inspection.

Sincerely,

#### /RA/

Gary L. Shear, Chief Plant Support Branch Division of Reactor Safety

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

Enclosure: Inspection Report 50-282/00-18(DRS); 50-306/00-18(DRS)

cc w/encl: Site General Manager, Prairie Island Plant Manager, Prairie Island M. Wadley, Chief Nuclear Officer G. Eckholt, Site Licensing Manager S. Northard, Nuclear Asset Manager J. Malcolm, Commissioner, Minnesota Department of Health State Liaison Officer, State of Wisconsin Tribal Council, Prairie Island Dakota 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

We will gladly discuss any question you have concerning this inspection.

Sincerely, /RA/ Gary L. Shear, Chief Plant Support Branch Division of Reactor Safety

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

Enclosure: Inspection Report 50-282/00-18(DRS); 50-306/00-18(DRS)

cc w/encl: Site General Manager, Prairie Island Plant Manager, Prairie Island M. Wadley, Chief Nuclear Officer G. Eckholt, Site Licensing Manager S. Northard, Nuclear Asset Manager J. Malcolm, Commissioner, Minnesota Department of Health State Liaison Officer, State of Wisconsin Tribal Council, Prairie Island Dakota 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

ADAMS Distribution: CMC1 DFT TJK3 (Project Mgr.) J. Caldwell, RIII G. Grant, RIII B. Clayton, RIII **SRI** Prairie Island C. Ariano (hard copy) DRP DRSIII PLB1 JRK1 BAH3 DOCUMENT NAME: C:\Pra00-018 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

OFFICE	RIII	RIII		RIII		
NAME	MMitchell:jb	GShear		RLanksbury		
DATE	12/01/00	12/06/00		12/07/00		

# OFFICIAL RECORD COPY

# U.S. NUCLEAR REGULATORY COMMISSION

# **REGION III**

Docket Nos: License Nos:	50-282, 50-306 DPR-42, DPR-60				
Report No:	50-282/00-18(DRS); 50-306/00-18(DRS)				
Licensee:	Nuclear Management Company, LLC				
Facility:	Prairie Island Nuclear Generating Plant				
Location:	1717 Wakonade Drive East Welch, MN 55089				
Dates:	November 13 - 17, 2000				
Inspectors:	M. Mitchell, Radiation Specialist				
Approved by:	Gary L. Shear, Chief Plant Support Branch Division of Reactor Safety				

# NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

#### **Reactor Safety**

#### Radiation Safety

#### Safeguards

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness
- OccupationalPublic
- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW, or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.

## SUMMARY OF FINDINGS

IR 05000282-00-18(DRS), IR 05000306-00-18(DRS), on 11/13 - 11/17/2000, Nuclear Management Company, LLC, Prairie Island Nuclear Generating Plant, Units 1 & 2. Occupational Radiation Safety Instrumentation

The inspection was conducted by a regional radiation specialist. No findings of significance were identified.

## Report Details

Summary of Plant Status: Unit 1 and Unit 2 operated at or near full power during the inspection period.

#### 2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

#### 2OS3 Radiation Monitoring Instrumentation

#### .1 Source Tests and Calibration of Radiological Instrumentation

a. Inspection Scope

The inspector verified that radiological instruments associated with transient high and very high radiation areas (area radiation monitors (ARM)), and instruments used for coverage of high radiation work areas and for air monitoring of jobs with the potential for workers to receive greater than 100 millirem committed effective dose equivalent (CEDE), had been properly calibrated and their alarm set-points (if applicable) properly set. The inspector verified that selected ARMs (spent fuel pool area, containment high range, and primary coolant sample room area monitors) had been appropriately calibrated and tested in 2000. The inspector reviewed the calibration procedures and the years 1999 and 2000 calibration records to verify that selected portable radiation survey instruments and selected continuous air monitors (CAMs) had been properly calibrated. The inspector also reviewed the calibration procedures and year 2000 calibration records for the Canberra Fastscan whole body counter (WBC), the access control tool monitor and selected Friskall personnel contamination monitors to verify that they had been properly calibrated. The inspector observed the calibration of a hand and foot monitor and an AM-2 area monitor to verify that the instruments were calibrated in compliance with the appropriate procedures. The inspector also observed the functional check of the WBC to verify compliance with the appropriate procedure. In addition, the inspector observed radiation protection (RP) technicians source check portable radiation survey instruments to verify compliance with procedures.

a. Findings

No findings of significance were identified.

- .2 Radiation Protection Technician Instrument Use
- a. Inspection Scope

The inspector verified compliance with the portable survey instrument use and control procedures by observing several RP technicians' selection and operational checks of portable radiation survey instruments used for RP technician job coverage. Specifically, the inspector observed RP technician job coverage during preparation of a spent fuel storage cask for movement to storage.

#### b. <u>Findings</u>

No findings of significance were identified.

#### .3 Self-Contained Breathing Apparatus (SCBA) Program

a. Inspection Scope

The inspector reviewed PINGP RPIP 1212, "Respiratory Protection Equipment and Testing," Revision 8, and verified the adequacy of the program to provide SCBA for unknown or emerging conditions. The inspector walked down the available equipment, reviewed equipment status and surveillance records of SCBA staged for use in the plant, verified the licensee's capability for refilling and transporting SCBA bottles to the control room and support locations in the plant, verified training, medical testing, fit test, and qualification records of selected individuals in 2000.

b. Findings

No findings of significance were identified.

- .4 Identification and Resolution of Problems
- a. Inspection Scope

The inspector reviewed the year 2000 Condition Reports (CR) that addressed radiation instrument deficiencies to determine if any significant radiological incidents involving radiation instrument deficiencies had occurred during the year 2000. The review was conducted to verify that the licensee had effectively implemented the corrective action program as it related to radiation instrumentation.

b. Findings

No findings of significance were identified.

## 4. OTHER ACTIVITIES

#### 4OA6 Management Meetings

#### Exit Meeting Summary

The inspector presented the inspection results to Mr. D. Schuelke and other members of licensee management and staff in an exit meeting on November 17, 2000. The licensee acknowledged the information and findings presented. No proprietary information was identified by the licensee.

## PARTIAL LIST OF PERSONS CONTACTED

#### <u>Licensee</u>

- F. Englett, Radiation Protection Superintendent
- A. Johnson, Radiation Protection Manager
- D. Larimer, Chemistry Supervisor
- D. Ludwig, Radiation Protection Technician
- G. Malinowski, ALARA Coordinator
- G. Secrist, Radiation Protection Technician
- D. Schuelke, Plant Manager
- P. Wildenborg, Health Physicist

## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

**Opened** 

None

<u>Closed</u>

None

**Discussed** 

None

## LIST OF ACRONYMS USED

ADAMS ARM	Agencywide Document Access and Management System Area Radiation Monitor
CAM	Continuous Air Monitor
CEDE	Committed Effective Dose Equivalent
CR	Condition Report
DRS	Division of Reactor Safety
NRC	Nuclear Regulatory Commission
PARS	Publically Available Records System
PINGP	Prairie Island Nuclear Generating Plant
RP	Radiation Protection
RPIP	Radiation Protection Implementing Procedure
SCBA	Self-contained Breathing Apparatus
USAR	Update Safety Analysis Report
WBC	Whole Body Counter
	-

#### LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection. 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.

#### Condition Reports

00-0058, 00-0059, 00-0061, 00-0849, 00-1229, 00-2539, 00-3002, 00-3527, 00-3796, 00-5184, 00-5202, 00-5234, 00-5235

#### **Observation Reports**

00-0123

Station Procedures

PINGP RPIP 1214 (Revision 8), "Respiratory Protection Equipment and Testing" PINGP RPIP 1223 (Revision 6), "Fastscan Stand Up Whole Body Counting" PINGP RPIP 1224 (Revision 2), "Calibration and Manager Menu Operation for the Fastscan WBC" PINGP RPIP 1518 (Revision 5), "Integral Tool Monitor Description, Operation and Calibration" PINGP RPIP 1524 (Revision 9), "NNC Friskall Description, Operation and Calibration" PINGP RPIP 1629 (Revision 9), "AM-2 Area Monitor Description, Operation and Calibration" PINGP RPIP 1638 (Revision 17), "Source Calibration Tables" PINGP RPIP 1664 (Revision 7), "AM-3D CAM Operation and Calibration" PINGP RPIP 3330 (Revision 12), "Dissolved Gases and Radiogases By Beckman Gas Panel" PINGP 436 (Revision 19), "Procedure Change Request" PINGP 757 (Revision 16), "Periodic Procedure/Checklist Review" PINGP SP 1028 (Revision 35), "Radiation Monitoring Monthly Source Test" PINGP SP 1243 (Revision 4), "Radiation Monitoring Quarterly Source Test" PINGP TP 1740 (Revision 5), "Victoreen Area Radiation Monitor Quarterly Test" PINGP TP 1740 (Revision 6), "Victoreen Area Radiation Monitor Quarterly Test" PING EPIP F3-23-2C (Revision 3), "U-2 Post Accident Primary Hydrogen and Radiogas" PING EPIP F3-23-2E (Revision 3), "U-2 Post Accident Primary Hydrogen, Radiogas and Liquid Sampling" PING EPIP F3-23-2A (Revision 4), "U-2 Post Accident Primary Hydrogen, Radiogas and Liquid Sampling" PING EPIP F3-23-1B (Revision 5), "U-1 Post Accident Containment Atmosphere Filtered Gas and Liquid Sample" PING EPIP F3-23-1D (Revision 3), "U-1 Post Accident Primary Liquid Sampling" PING EPIP F3-23-1F (Revision 5), "U-1 Post Accident Containment Atmosphere Filtered Gas,

Particulate, Iodine and Liquid Sample"

**Calibration Records** 

PING 683, (Revision 8), "Calibration Data Sheet NNC Friskall" PING 1028 (Revision 11), "Respiratory Protection Checks"

#### Audits and Self-Assessments

7.190B, ALARA Review Dry Casks dated November 16, 2000

#### Other Documents

USAR (Rev 22) Section 7

Internal Correspondence - Change in CAM Moving Filter Setpoint Calculation and CAM Iodine Filter Changeout dated October 4, 1995

Emergency Planning Data Base of Procedure Changes for Review - dated July 3, 2000