

March 13, 2002

Mr. Mano Nazar  
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 50-282/01-19; 50-306/01-19

Dear Mr. Nazar:

On February 14, 2002, the NRC completed an inspection at your Prairie Island Nuclear Generating Plant. The enclosed report documents the inspection findings which were discussed on February 14, 2002, with you and other members of your staff.

This 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. During this inspection, Temporary Instruction 2515/145, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," for Unit 2 and 2515/146, "Hydrogen Storage Location", were closed.

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

M. Nazar

-2-

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Sincerely,  
Original signed by  
Roger D. Lanksbury

Roger D. Lanksbury, Chief  
Branch 5  
Division of Reactor Projects

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

Enclosure: Inspection Report 50-282/01-19; 50-306/01-19

cc w/encl: Plant Manager, Prairie Island  
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  
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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 50-282/01-19; 50-306/01-19

Licensee: Nuclear Management Company, LLC

Facility: Prairie Island Nuclear Generating Plant

Location: 1717 Wakonade Drive East  
Welch, MN 55089

Dates: December 30, 2001, through February 14, 2002

Inspectors: S. Ray, Senior Resident Inspector  
S. Thomas, Resident Inspector  
D. Karjala, Resident Inspector  
S. Burton, Senior Resident Inspector, Monticello  
D. Kimble, Resident Inspector, Monticello  
R. Jickling, Emergency Preparedness Analyst  
D. Jones, Reactor Engineer  
M. Mitchell, Radiation Specialist

Approved by: Roger D. Lanksbury, Chief  
Branch 5  
Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000282-01-19; IR 05000306-01-19, on 12/30/2001-2/14/2002; Nuclear Management Company, Prairie Island Nuclear Generating Plant, Units 1 & 2, Resident Inspector Report.

This report covers a 7-week routine resident inspection. The inspection was conducted by resident inspectors, region-based emergency preparedness, radiation protection and inservice inspection specialists. 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 <http://www.nrc.gov/NRR/OVERSIGHT/index.html>. Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation.

A. Inspector-Identified Findings

No findings of significance were identified.

B. Licensee-Identified Findings

No findings of significance were identified.

## Report Details

### Summary of Plant Status

Unit 1 was operated at or near full power for the entire inspection period except that power was briefly reduced to about 40 percent on January 19-20, 2002, for turbine valve testing. Unit 2 was operated at or near full power until January 18, 2002, when the operators began a gradual coastdown in power. Power had decreased to 88 percent on February 1, 2002, at which time Unit 2 was shutdown for a refueling. Unit 2 remained in a refueling shutdown for the remainder of the inspection period.

### **1. REACTOR SAFETY**

#### **Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness**

#### 1R04 Equipment Alignment (71111.04)

##### a. Inspection Scope

The inspectors performed walkdowns of risk significant equipment trains to verify that the redundant train was in the correct lineup while the opposite train was unavailable. The inspectors used the checklists and drawings listed at the end of this report to determine the correct lineups. The inspectors also reviewed outstanding work orders (WOs) and condition reports (CRs) associated with each train to verify that these documents did not reveal issues that could affect train function. Significant WO's and CRs reviewed are listed at the end of this report. The inspectors used the information in the sections of the Updated Safety Analysis Report (USAR) and Technical Specifications (TS) listed at the end of this report to determine the functional requirements of the systems. During the walkdowns, the inspectors also observed the material condition of the equipment to verify that there were no significant conditions not already in the licensee's work control system. The inspectors also reviewed documents to verify that minor issues identified during the walkdowns were entered into the licensee's corrective action system.

Walkdowns were conducted on the following trains:

- the D6 diesel generator while the D5 diesel generator was unavailable for preventive maintenance, and
- the Unit 1 containment spray system while the 13 containment fan coil unit inlet valve was unavailable for corrective maintenance.

##### b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

.1 Area Walkdowns

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, the condition of fire fighting equipment, the control of transient combustibles, and on the condition and operating status of installed fire barriers. The inspectors selected fire areas for inspection based on their overall contribution to internal fire risk, as documented in the Individual Plant Examination of External Events (IPEEE), their potential to impact equipment which could initiate a plant transient, or their impact on the plant's ability to respond to a security event. The inspectors used the documents listed at the end of this report to verify that fire hoses and extinguishers were in their designated locations and available for immediate use, that fire detectors and sprinklers were unobstructed, that transient material loading was within the analyzed limits, and that fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors reviewed documents to verify that minor issues identified during the walkdowns were entered into the licensee's corrective action system.

The following areas were inspected:

- Fire Area 59: Unit 1 Auxiliary Building, 715 foot elevation; and
- Fire Area 74: Unit 2 Auxiliary Building, 715 foot elevation.

b. Findings

No findings of significance were identified.

.2 (Closed) Temporary Instruction (TI) 2515/146: Hydrogen Storage Locations

a. Inspection Scope

The inspectors completed the inspection requirements of the TI to confirm that distances between any hydrogen storage capacity and ventilation intakes or risk significant tanks, systems, structures, or components were greater than 50 feet. The inspectors reviewed documents to verify that minor issues identified during the inspection were entered into the licensee's corrective action system.

b. Findings

No findings of significance were identified.



## 1R07 Heat Sink Performance

### a. Inspection Scope

The inspectors observed heat exchanger performance testing on the 21 and 22 component cooling heat exchangers, performed in accordance with the procedure listed at the end of this report. The inspectors reviewed the testing to verify that it was performed with the maximum practical heat load on the heat exchangers, that the test acceptance criteria appropriately considered the difference between the test conditions and design conditions, that the test results met the pre-established acceptance criteria, and that the design assumptions were consistent with the actual condition of the heat exchangers with respect to tube plugging. The inspectors reviewed documents to verify that minor issues identified during the inspection were entered into the licensee's corrective action system.

### b. Findings

No findings of significance were identified.

## 1R08 Inservice Inspection Activities (71111.08)

### a. Inspection Scope

The inspectors evaluated the implementation of the licensee's inservice inspection (ISI) program for monitoring degradation of the reactor coolant system boundary and the risk significant piping system boundaries. Specifically, the inspectors observed in-process ultrasonic and magnetic particle inspections of feedwater weld 24 (2-ISI-49) and conducted a record review of the ultrasonic examination of RHR weld 18 (2-ISI-51) to verify that these activities were conducted in accordance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code requirements. The inspectors also conducted a review of work packages and radiographs of the pressurizer spray valve (CV 31228 and CV 31229) replacement and reviewed inservice inspection procedures and personnel and equipment certifications.

The inspectors reviewed the NIS-2 forms for Code repairs performed during the last outage (Refueling Outage No. 20) to confirm that ASME Code requirements were met. In addition, the inspectors reviewed condition reports concerning inservice inspection issues to verify that an appropriate threshold for identifying issues had been established. The inspectors also evaluated the effectiveness of the corrective actions for identified issues.

### b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

a. Inspection Scope

The inspectors reviewed systems to verify that the licensee properly implemented the maintenance rule for structures, systems, or components (SSCs) with performance problems. This evaluation included the following aspects:

- whether the SSC was scoped in accordance with 10 CFR 50.65;
- whether the performance problem constituted a maintenance rule functional failure;
- the proper safety significance classification;
- the proper 10 CFR 50.65(a)(1) or (a)(2) classification for the SSC; and
- the appropriateness of the performance criteria for SSCs classified as (a)(2) or the appropriateness of goals and corrective actions for SSCs classified as (a)(1).

The above aspects were evaluated by using the maintenance rule scoping and report documents listed at the end of this report. For each SSC reviewed, the inspectors also reviewed significant WOs and CRs listed at the end of this report to verify that failures were properly identified, classified, and corrected and that unavailable time had been properly calculated. In addition, the inspectors reviewed CRs to verify that minor deficiencies identified during these inspections were entered in the licensee's corrective action system.

The inspectors reviewed the licensee's implementation of the maintenance rule requirements for the following SSCs:

- the main turbine electro-hydraulic (EH) systems;
- the D5 diesel generator starting air system; and
- the nuclear instrumentation (NI) system.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed the licensee's management of plant risk during emergent maintenance activities or activities during a time when more than one significant system or train was unavailable. The activities were chosen based on their potential impact on increasing the probability of an initiating event or impacting the operation of safety significant equipment. The inspection was conducted to verify that evaluation, planning, control, and performance of the work were done in a manner to reduce the risk and minimize the duration, where practical, and that contingency plans were in place, where appropriate. The licensee's daily configuration risk assessments, observations of shift turnover meetings, observations of daily plant status meetings, and the documents listed at the end of this report were used by the inspectors to verify that the equipment

configurations had been properly listed, that protected equipment had been identified and was being controlled where appropriate, and that significant aspects of plant risk were being communicated to the necessary personnel.

The inspectors reviewed the following maintenance activities:

- repair of the D5 diesel generator 1A starting air compressor while the D6 diesel generator was out-of-service for preventive maintenance;
- troubleshooting and recovery from a high crankcase pressure problem on the D6 diesel generator following preventive maintenance; and
- risk assessment, work controls, and protected equipment controls during periods of yellow risk rate categories on January 31 and February 1, 2002, when a relatively large amount of equipment was out of service simultaneously.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors evaluated plant conditions and selected CRs for risk significant components and systems in which the operability issues were questioned. These conditions were evaluated to determine whether the operability of the components and systems was justified. The inspectors compared the operability and design criteria in the appropriate sections of the TS and USAR to the licensee's evaluations presented in the CRs below and documents listed at the end of this report to verify that the components or systems were operable. Where compensatory measures were necessary to maintain operability, the inspectors reviewed the documents listed at the end of the report to verify that the measures were in place, would work as intended, and were properly controlled. The inspectors reviewed records to verify that minor issues identified during the inspection were entered into the licensee's corrective action system.

The conditions evaluated were:

- the licensee's action to bring four 1000-gallon propane tanks into the protected area;
- the licensee's investigation into whether the high crankcase pressure experienced on the D6 diesel generator could be generic to the D5 diesel generator; and
- the licensee's investigation into whether the safety injection accumulators could be considered operable after it discovered that not all inservice testing program requirements had been met.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed post-maintenance testing activities associated with maintenance on important mitigating and support systems to ensure that the testing adequately verified system operability and functional capability with consideration of the actual maintenance performed. The inspectors used the appropriate sections of TS and the USAR, as well as the documents listed at the end of this report, to evaluate the scope of the maintenance and verify that the post-maintenance testing performed adequately demonstrated that the maintenance was successful and that operability was restored. In addition, the inspectors reviewed CRs to verify that minor deficiencies identified during these inspections were entered into the licensee's corrective action system.

Testing subsequent to the following activities were observed and evaluated:

- the D5 diesel generator after 18-month preventive maintenance;
- the D5 diesel generator after governor control repairs; and
- the D6 diesel generator after an investigation of high oil pressure.

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities (71111.20)

a. Inspection Scope

The inspectors reviewed and/or observed activities associated with a Unit 2 refueling outage. The inspectors reviewed the outage plan and schedule to verify that risk had been appropriately considered and observed the unit shutdown, cooldown, establishment of residual heat removal, and reactor coolant system (RCS) draindown activities. The inspectors also observed portions of the fuel handling operations in containment to verify that the activities were performed in accordance with TS and approved procedures, and to verify that the locations of fuel assemblies were properly tracked. The inspectors also observed and/or reviewed several other miscellaneous outage activities. The inspectors regularly reviewed the licensee's shutdown risk assessment classification and its control of protected equipment when defense-in-depth equipment was unavailable, especially electrical power sources. The inspectors reviewed documents to verify that minor issues identified during the outage were entered into the licensee's corrective action system.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors witnessed selected surveillance testing and/or reviewed test data to verify that the equipment tested using the surveillance procedures (SPs) met TS, the USAR, and licensee procedural requirements, and also demonstrated that the equipment was capable of performing its intended safety functions. The activities were selected based on their importance in verifying mitigating systems capability. The inspectors used the documents listed at the end of this report to verify that the testing met the TS frequency requirements; that the tests were conducted in accordance with the procedures, including establishing the proper plant conditions and prerequisites; that the test acceptance criteria were met; and that the results of the tests were properly reviewed and recorded. In addition, the inspectors reviewed documents to verify that minor deficiencies identified during these inspections were entered into the licensee's corrective action system.

The following tests were observed and evaluated:

- SP 2218, "Monthly 4KV [kilovolt] Bus 25 Undervoltage Relay Test"; and
- SP 1093, "D1 Diesel Generator Monthly Slow Start Test."

b. Findings

No findings of significance were identified.

1R23 Temporary Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed a temporary modification to install a tent and heater around the cooling water dump-to-grade line outside the plant. The purpose of the modification was to prevent ice buildup in the line. The inspectors reviewed the temporary modification screening form and the 10 CFR 50.59 screening form listed at the end of the report to ensure that they were completed in accordance with licensee procedural guidance. In addition, the inspectors reviewed the sections of the USAR and TS listed at the end of this report to verify that the installation did not affect the specified design function or operability of the system. The inspectors also reviewed installation and removal work orders listed at the end of this report and walked down the installation to insure that the temporary equipment was installed in accordance with the plan.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspector reviewed Revisions 22 and 23 of the Prairie Island Nuclear Generating Plant Emergency Plan to determine whether changes identified in Revision 23 reduced the effectiveness of the licensee's emergency planning, pending onsite inspection of the implementation of these changes.

b. Findings

No findings of significance were identified.

**2. RADIATION SAFETY**

**Cornerstone: Occupational Radiation Safety**

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Plant Walkdowns and Radiation Work Permit Reviews

a. Inspection Scope

The regional radiation specialist inspector conducted walkdowns of selected radiologically controlled areas within the plant to verify the adequacy of radiological boundaries and postings during the Unit 2 refueling outage. Specifically, the inspector walked down several radiologically significant work area boundaries (high and locked high radiation areas) in the Unit 2 containment building and auxiliary buildings, and performed confirmatory radiation measurements to verify that these areas and selected radiation areas were properly posted and controlled in accordance with 10 CFR Part 20, licensee procedures, and the TSs. The inspector also reviewed the radiological conditions within those work areas walked down to verify adequate radiological housekeeping and contamination controls.

The inspectors reviewed selected radiation work permits (RWPs) used to access radiologically significant work areas (radiation areas (RAs) and high radiation areas (HRAs) during the Unit 2 refueling outage. Work activities in those areas included reactor head work, reactor cavity flood-up, ISI and corrosion inspection, steam generator manway removal and nozzle dam installation, and selected valve work. The inspector reviewed the RWPs to verify that they contained adequate work control instructions. In the case of HRA access, the inspector reviewed the RWP controls to verify that the licensee was in compliance with the specific requirements contained in the TSs. The inspector also reviewed electronic dosimeter alarm setpoints and compared them to area radiation levels and expected personnel exposures to verify that the alarm setpoints were adequately determined. Finally, the inspector evaluated established work controls to determine if worker exposures were maintained As-Low-As-Is-Reasonably-Achievable (ALARA).

b. Findings

No findings of significance were identified.

.2 High Radiation Area and Very High Radiation Area Controls

a. Inspection Scope

The regional radiation specialist inspector reviewed the licensee's controls for HRAs and very high radiation areas. In particular, the inspector reviewed the procedures for posting and controlling HRAs to verify compliance with 10 CFR Part 20 and the TSs. The inspector also reviewed records of HRA boundary and posting surveillances during the outage and performed walkdowns to verify the adequacy of boundaries, controls, and postings. In addition, the inspector reviewed the controls for highly irradiated material that was stored in spent fuel storage pools to verify that the licensee had implemented adequate measures to prevent inadvertent personnel exposures from these materials.

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning and Controls (71121.02)

.1 Job Site Inspections and ALARA Control

a. Inspection Scope

The regional radiation specialist inspector selected a number of refueling outage high exposure or high radiation area work activities to evaluate the licensee's use of ALARA controls for each activity.

The inspector reviewed ALARA plans for each activity and observed work associated with each activity to verify the use of proper engineering controls to achieve dose reductions. The inspector conducted walkdowns of the areas to determine if workers were utilizing the low dose waiting areas for each activity and whether the first-line supervisor for each job ensured that the jobs were conducted in a dose efficient manner. The inspector made job site observations and reviewed individual exposures of selected work groups to determine if there were any significant exposure variations which may exist among workers and to verify that multiple dosimetry was employed during jobs that involved significant dose gradients.

b. Findings

No findings of significance were identified.

.2 Source Term Reduction and Control

Inspection Scope

The regional radiation specialist inspector evaluated the source term reduction program to verify that the licensee had an effective program in place, and was knowledgeable of plant source term and techniques for its reduction.

b. Findings

No findings of significance were identified.

.3 Radiological Work Planning

a. Inspection Scope

The regional radiation specialist inspector selected high collective dose refueling outage job activities to assess the adequacy of the radiological controls and work planning. For each job activity selected, the inspector reviewed ALARA evaluations including initial reviews, in-progress reviews, and associated dose mitigation techniques and evaluated the licensee's exposure estimates and performance to assure that the licensee was using the established work planning procedures and tools. The inspector also assessed the integration of ALARA requirements into work packages to evaluate the licensee's communication of radiological work controls.

The inspector reviewed the exposure results for the selected activities to evaluate the accuracy of exposure estimates in the ALARA plan. The inspector compared the actual exposure results with the initial exposure estimates, the estimated and actual dose rates, and the estimated and actual man-hours expended to assess the accuracy of planning estimates. The inspector reviewed each of the selected activity exposure histories to determine if management had reviewed the exposure status of each activity, in-progress ALARA job reviews were needed, additional engineering/dose controls had been established, and required corrective action documents had been generated.

b. Findings

No findings of significance were identified.

.4 Identification and Resolution of Problems (71121.01 and 71121.02)

a. Inspection Scope

The regional radiation specialist inspector reviewed self-assessments and audits conducted since the last outage, as well as selected outage generated action requests, which focused on ALARA planning and Access Controls. The inspector evaluated the effectiveness of the licensee's self-assessment process to identify, characterize, and prioritize problems. The inspector evaluated the licensee's ability to identify repetitive problems, contributing causes, the extent of conditions, and corrective actions which would achieve lasting results.



b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

4OA1 Performance Indicator (PI) Verification (71151)

a. Inspection Scope

The inspectors reviewed the PI data listed below for completeness and accuracy for the Safety System Unavailability PIs in the Mitigating Systems cornerstone. For each PI, the inspectors compared the data reported by the licensee to the definitions and guidance contained in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 1. The inspectors reviewed licensee computer databases to gather information regarding unavailable time for the systems, and compared those times to the data reported by the licensee. The inspectors also reviewed the CRs and WOs listed at the end of this report to identify unavailable time for the systems. The inspectors reviewed the following PIs:

- High Pressure Injection System for the first three quarters of 2001; and
- Heat Removal System (Auxiliary Feedwater) for the first three quarters of 2001.

The inspectors also reviewed the licensee's assessment of its PI for occupational radiation safety to determine if indicator-related data was adequately assessed and reported. Since no reportable elements were identified by the licensee for the last four quarters, the inspectors compared the licensee's data with CRs to verify that there were no occurrences concerning the occupational radiation safety cornerstone.

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

(Closed) Licensee Event Report (LER) 2-01-05: Manual Reactor Trip on Unit 2, Initiated in Response to a High Differential Pressure Between the Turbine Steam Condensers, Caused by an Inadvertent Venting of One Condenser While Isolating a Steam Leak

This event was discussed in Inspection Report 50-282/01-17; 50-306/01-17, Sections 1R14 and 4OA3.1. As described in the LER, the inadvertent venting of one condenser was the result of an inadequate stress calculation for a leak sealing job and an inadequate contingency isolation procedure for the air ejector system. The inadequacies resulted in a reactor trip initiating event with the loss of the normal condenser as a heat sink. All other mitigation systems performed as expected. At the time of the event, it was screened by an NRC risk analyst and determined to be of very low safety significance. The issue was entered into the licensee's corrective action

system as CR 200185657. The inspectors reviewed the LER and no new significant issues were identified. This event did not constitute a violation of NRC requirements because the condenser air ejector system did not fall under the 10 CFR Part 50, Appendix B, quality assurance requirements.

40A5 Other

.1 Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles (Temporary Instruction 2515/145)

a. Inspection Scope

The inspectors performed a review of the licensees' activities in response to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles," to verify compliance with applicable regulatory requirements. In accordance with the guidance of NRC Bulletin 2001-01, the Prairie Island Nuclear Generating Plant was characterized as belonging to the sub-population of plants (Bin 3) that were considered to have a moderate susceptibility to primary stress corrosion cracking based upon a susceptibility ranking of more than 5 but less than 30 effective full power years of operation from that of the Oconee Nuclear Station, Unit 3 condition. As a result, the Prairie Island Nuclear Generating Plant responded to NRC Bulletin 2001-01 by performing a direct visual examination of the reactor vessel head. The inspectors interviewed inspection personnel, reviewed procedures and inspection reports, including photographic documentation, to assess the licensee's efforts in conducting an "effective" visual examination of the reactor vessel head.

b. Evaluation of Inspection Requirements

1. *Were the licensee's examinations performed by qualified and knowledgeable personnel?*

The inspectors reviewed records to verify that the examinations were performed by an individual certified as a Level II in the VT-1, VT-2, and VT-3 Methods. In addition, the licensee's procedure required a review of the specific guidelines described in the Electric Power Research Institute (EPRI), "Visual Examination for Leakage of PWR Reactor Head Penetrations."

2. *Were the licensee's examinations performed in accordance with approved and adequate procedures?*

The inspectors reviewed documents to verify that the examinations were conducted in accordance with an approved plant procedure, Unit 2 RV Head Canopy Seal Weld Inspection, WO 0107685, and the guidelines established in EPRI Document 1006296 "Visual Examination for Leakage of PWR Reactor Head Penetrations." The inspectors determined that the procedure was appropriate for the examinations.

3. *Were the licensee's examinations adequately able to identify, disposition, and resolve deficiencies?*

The inspectors determined through a review of post-examination records, discussions with the personnel that conducted the examinations, and a review of the procedure, that the examinations were sufficient to identify any deficiencies. The licensee's examinations did not identify any deficiencies; therefore, the inspectors did not assess the licensee's efforts to disposition or resolve deficiencies.

4. *Were the licensee's examinations capable of identifying the primary stress corrosion cracking phenomenon described in the Bulletin?*

The inspectors determined through interviews with inspection personnel, and reviews of procedures and inspection reports, including photographic documentation of the examinations, that the licensee's efforts were capable of identifying the phenomenon described in the Bulletin. The inspectors determined that the inspection personnel had access to all the head penetrations, 41 in total, with no obstructions or interferences.

5. *What was the condition of the reactor vessel head (debris, insulation, dirt, boron from other sources, physical layout, viewing obstructions)?*

The Prairie Island Nuclear Generating Plant pressure vessel head had block contoured vessel head insulation, consisting of mirror panels fabricated of 4-inch thick perforated metal block insulation with viewing ports cut into the insulation. The inspectors determined that the licensee had complete viewable coverage. The inspectors also determined through discussions with the inspection personnel and review of the inspection photographs that the as-found pressure vessel head condition was clean. (A small amount of debris in the form of metal shavings from the cutting of the viewing ports was noted; however, this did not obstruct the exam.)

6. *Could small boron deposits, as described in the bulletin, be identified and characterized?*

The inspectors verified, through interviews with inspection personnel and review of the photographic record of the examination, that small boron deposits, as described in the Bulletin, could be identified, given the cleanliness and accessibility of the pressure vessel head penetrations. However, no indications were found on the 41 penetrations.

7. *What materiel deficiencies (associated with the concerns identified in the bulletin) were identified that required repair?*

Through a review of the examination records, the inspectors determined the inspection personnel did not identify any materiel deficiencies associated with any of the 41 pressure vessel head penetrations.

8. *What, if any, significant items that could impede effective examinations and/or ALARA issues were encountered?*

The inspectors conducted reviews to verify that there were no impediments to the examinations. The inspection ports eliminated the need for insulation removal and the radiation dose that would have been received. Collective radiation dose received as a part of the examinations was approximately 40 millirem.

c. Findings

No findings of significance were identified.

4OA6 Meeting(s)

Exit Meeting

The resident inspectors presented the inspection results to Mr. M. Nazar and other members of licensee management at the conclusion of the inspection on February 14, 2002. The licensee acknowledged the findings presented. No proprietary information was identified.

Interim Exit Meetings

Senior Official at Exit:	M. Werner, Plant Manager
Date:	February 7, 2002
Proprietary:	No
Subject:	Biennial Inservice Inspection

Senior Official at Exit:	M. Nazar, Site Vice President
Date:	February 8, 2002
Proprietary:	No
Subject:	Access Control to Radiologically Significant Areas, ALARA Planning, and Occupational Radiation Safety Performance Indicator

## KEY POINTS OF CONTACT

### Licensee

P. Blaylock, ISI Coordinator  
T. Breene, Manager Nuclear Performance Assessment  
B. Jefferson, Director Site Operations  
A. Johnson, General Superintendent Radiation Protection and Chemistry  
R. Lingle, Operations Manager  
J. Maki, Production Planning Manager  
L. Meyer, General Superintendent Plant Maintenance  
M. Nazar, Site Vice President  
S. Redner, NDE Consulting Specialist  
J. Waddell, Superintendent Security  
M. Werner, Plant Manager  
D. Whitcomb, ISI Engineer  
L. Williams, Director of Engineering

## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

### Opened

None.

### Closed

2-01-05	LER	Manual Reactor Trip on Unit 2, Initiated in Response to a High Differential Pressure Between the Turbine Steam Condensers, Caused by an Inadvertent Venting of One Condenser While Isolating a Steam Leak (Section 4OA3)
2515/146	TI	Hydrogen Storage Locations (Section 1R05)
2515/145	TI	Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles (Section 4OA5.1)

### Discussed

None.

## LIST OF ACRONYMS USES

ADAMS	Agencywide Documents Access and Management System
AFW	Auxiliary Feed Water
ALARA	As-Low-As-Is-Reasonably-Achievable
CFR	Code of Federal Regulations
CR	Condition Report
DRS	Division of Reactor Safety
EH	Electro-Hydraulic
EPRI	Electric Power Research Institute
ERCS	Emergency Response Computer System
HRA	High Radiation Area
IMC	Inspection Manual Chapter
IPEEE	Individual Plant Examination of External Events
IR	Inspection Report
ISI	Inservice Inspection
IST	Inservice Testing
KV	Kilovolt
LCO	Limiting Conditions for Operation
LER	Licensee Event Report
NEI	Nuclear Energy Institute
NI	Nuclear Instrumentation
NMC	Nuclear Management Company
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
PI	Performance Indicator
PINGP	Prairie Island Nuclear Generating Plant
PM	Preventive Maintenance
RA	Radiation Area
RCA	Radiologically Controlled Area
RCS	Reactor Coolant System
RWP	Radiation Work Permit
SDP	Significance Determination Process

SP	Surveillance Procedure
SSC	Structure, System, or Component
TCN	Temporary Change Notice
TI	Temporary Instruction
TS	Technical Specifications
USAR	Updated Safety Analysis Report
WO	Work Order

## LIST OF DOCUMENTS REVIEWED

### 1R04 Equipment Alignment

#### D6 Diesel Generator

Integrated Checklist C1.1.20.7-13	D6 Diesel Generator Valve Status	Revision 11
Integrated Checklist C1.1.20.7-14	D6 Diesel Generator Auxiliaries and Local Panels and Switches	Revision 5
Integrated Checklist C1.1.20.7-15	D6 Diesel Generator Main Control Room Switch and Indicating Light Status	Revision 4
Integrated Checklist C1.1.20.7-16	D6 Diesel Generator Circuit Breakers and Panel Switches	Revision 6
CR 200186994	D6 Stop Jack Partially Actuated Due to Overspeed Trip Device Leaking Air	
WO 0111705	D6 1B Starting Air Compressor Not Functioning Properly	
WO 9912495	Repair Oil Leak on D6 1B Starting Air Compressor	
WO 0200070	D6 1B Air Dryer Has a Low Limit Reading for Hygrometer	
USAR Section 8.4	Plant Standby Diesel Generator Systems	Revision 23
TS 3.7	Auxiliary Electrical Systems	Revision 160

#### Unit 1 Containment Spray

Drawing NF-39237	Containment Internal Spray System	Revision AC
Operations Manual Section B18D	Containment Spray System	Revision 4
USAR Section 6.2	Safety Injection System	Revision 22
USAR Section 6.4	Containment Vessel Internal Spray System	Revision 23
TS Section 3.3	Engineered Safety Features	Revision 161
CR 20018150	Temporary Suction Strainers	
CR 200200531	Criteria for Determining "Locked" Versus "Blocked" Not Clear and Not Clearly Controlled by a Process	
CR 200200523	Drawing NF-39237 Denotes CS-15 and CS-45 as "Locked Open" - They are Maintained in a "Blocked Open" Condition	



### 1R05 Fire Protection

Plant Safety Procedure F5	Fire Fighting	Revision 27
Plant Safety Procedure F5 Appendix F	Fire Hazard Analysis	Revision 12
Plant Safety Procedure F5 Appendix A	Fire Strategies	Revision 10
IPEEE NSPLMI-96001 Appendix B	Internal Fires Analysis	Revision 2
F5 Appendix D	Impact of Fire Outside Control/Relay Room	Revision 7
TI 2515/146	Hydrogen Storage Locations	
CR 200200274	Hydrogen House/Waste Gas Storage Area is Not Identified in the Fire Strategies	
CR 200200473	Resolution of NRC Resident Concern of Possible Transient Combustibles in Auxiliary Building	

### 1R07 Heat Sink Performance

WO 0101382	SP 2304, Unit 2 Component Cooling Heat Exchanger Performance Test	
CR 200201141	21 Component Cooling Heat Exchanger Performance Test Indicates ERCS [emergency response computer system] Point 2T2703A Reads Low	

### 1R12 Maintenance Rule Implementation

#### General

	2000 Equipment Performance Annual Report	April 20, 2001
	Maintenance Rule System Basis Document, Volume 1A	Revision 3
	Quarterly Equipment Performance Report - 4 <sup>th</sup> Quarter 2001	February 2002
NUMARC 93-01	Nuclear Energy Institute Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants	Revision 2
Regulatory Guide 1.160	Monitoring the Effectiveness of Maintenance at Nuclear Power Plants	Revision 2

#### EH Systems

CR 19991123	EH Control System Year 2000 Testing	
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CR 200185746 Turbine Did Not Ramp to 1800 Revolutions Per Minute as Expected During Turbine Roll 11/3/2001 During Unit 2 Startup Operations

CR 200186203 Review Problems Associated with Turbine Rollup and Human Performance with Regard to the Use of Diverse Indication

CR 20012102 Unit 1 Turbine Control Valves; 3 of 4 Dump Valves Needed to be Cleaned and New O-Rings Installed

WO 0013459 21 EH Unloader Valve Has Small Leak

WO 0101661 EH Controller Checkout

WO 0104128 Excessive Oil Leakage at 21 EH Oil Pump

D5 Starting Air System

WO 9405349 Replace D1 1A Air Compressor 2<sup>nd</sup> Stage Head Gasket

WO 9704550 D5 Compressor 1A Won't Pump to Pressure

WO 0007523 Repair D5 1A Air Compressor, Lifting Relief Valve

WO 0104228 Repair D5 1A Air Compressor, Lifting Relief Valve

WO 0109312 D5 1A Air Compressor Has Blown Head Gasket

WO 0200881 D5 1A Starting Air Compressor Head Gasket Blown

NI System

CR 20014786 2N51 Source Range Counts and Log Power Range Indication Cycles With Bank C Pressurizer Heaters

CR 20017503 Evaluate Source Range 1N32 Failure and NI System Source Range Trending

CR 200185685 Noisy Source Range Channel

CR 200185707 2N32 Went From 400 Counts Per Second to 100 Counts Per Second

CR 200186240 N51 Power Range Log Scale ERCS Indication Failing Low

CR 200201534 Source Range 2N31 Failed During Refueling Outage - High Indication (10E4 Counts Per Second) Due To Suspected Noise

CR 200201571	From 2/14/02 NRC Exit: Are N51 and N52 in Scope of Maintenance Rule? Appears They Should Be
WO 0106959	Test the Source Range Preamplifiers
WO 0107493	2N42B Was Spiking During SP 2006C
WO 0107673	Check Bank "C" Heaters Effect on 2N51
WO 0108161	Erratic Response on 1N-41 Digital Meter
WO 0111297	Loud Buzzing Sound Coming From 2N35
WO 0111706	Power Range N42 Giving Alarms
WO 0113937	2N41 Upper Detector Current Display Problem
WO 0115413	2N31 Spiking During SP 2035A
WO 0200141	2N52 Excessive Ripple Voltage on PS1
WO0201487	2N31 Reading 10E5 Counts With No Change In 2N32
WO 0201490	Replace 2NE-31 Source Range Detector
WO 0201580	Assist CHAR Services in Performing Cable Testing For the Unit 2 NI System
WO 0201602	Observed Noise Spike on N52 During Fuel Shuffle

1R13 Maintenance Risk Assessment and Emergent Work Control

D5 Starting Air Compressor Repair

CR 200200633	D5 1A Starting Air Compressor 213-031 Blown Head Gasket Caused Excessive Run Time and Receiver Less Than 510 Pounds Per Square Inch
WO 0200881	D5 1A Starting Air Compressor Head Gasket Blown

D6 High Crankcase Pressure

CR 200200734	Aborted SP 2307 D6 Diesel Generator 6-Month Fast Start Test Due to Increasing Crankcase Pressure During 18-Month PM [preventive maintenance] Run	
SP 2305	D6 Diesel Generator Monthly Slow Start Test	Revision 16
SP 2307	D6 Diesel Generator 6-Month Fast Start Test	Revision 16
Work Schedule	D6 Recovery Schedule	January 25, 2002

Memorandum of Telephone Communication	Call Between Prairie Island Nuclear Generating Plant and Wartsila Nuclear Service	January 25, 2002
Draft Root Cause Memorandum	D6 Oil Issue	January 23, 2002
WO 0111015	Complete Mark-up of SP 2307 and SP 2335	
Memorandum	Resolution of D6 Emergency Diesel Post-Overhaul Issues	January 26, 2002

Yellow Risk Condition on January 31-February 1, 2002

	Risk Assessment for Proposed Work for Week of 2B04
WO 0112378	23 Charging Pump Quarterly Check
WO 0200065	23 Charging Pump Will Only Run in Minimum Speed
WO 0104351	22 Battery Charger Inspect/Test/PM [Preventative Maintenance]
WO 0112390	22 Cooling Water Strainer Annual Inspection
WO 0112386	122 Safeguards Traveling Screen Annual Inspection
WO 0201056	12 Charging Pump Has a Leak Rate of .5 Gallons Per Minute
WO 0108190	Breaker Electrical 10-Year PM - 122 Cooling Water Traveling Screen
WO 0111993	SP 1305 - D2 Diesel Generator Monthly Slow Start Test
WO 0112364	D2 Diesel Generator 6-Month Inspection
WO 0104848	PM Breaker 26-1 - Bus Tie
WO 0104850	Overhaul Breaker 26-17 - Cooling Water Bus 27 Feed
WO 0113418	SP 2093 - D5 Diesel Generator Monthly Slow Start Test
WO 0200974	CV-31133 Failed to Open on Signal
WO 0107413	PM Breaker 24-4 - 23 Condensate Pump
CR 200200735	D5 1A Starting Air Receiver and D5 Engine 1A Overspeed Detector Removed from Service Due to Air Leakage

CR 200200887 D6 Overspeed Detector Has Air Leak  
Indicating that the Device is Failing -  
Isolated D6 2B Air Start System

WO 0201073 Isolate Overspeed Trip Device or Field  
Flash Speed Switch

Temporary Modification D5 Field Flash Speed Sensor Bypass  
02T113

1R15 Operability Evaluations

Propane Issue

CR 200200085 Quantity of Temporary Liquid Propane  
Exceeded Nuclear Management Company  
Guidelines as Directed in D14.9, Section 4.0  
- Limit of Less Than 1000 Gallons

CR 200200130 Four 1000 Gallon Propane Tanks Were  
Brought On Site Putting Us in an  
Unanalyzed Situation for Control Room  
Habitability

CR 200200144 8-Hour Non-emergency Event Notification  
Due to Propane Tanks Exceeding Toxic  
Gas Analysis for Control Room Habitability

Memorandum Follow-up to Toxic Gas Issue Occurring on January 4, 2002 January 6, 2002

Memorandum Corrective Action Plan for Control Room Habitability January 8, 2002

Regulatory Guide 1.78 Evaluating the Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release Revision 1

NUREG/CR-6624 Recommendations for Revision of Regulatory Guide 1.78

Safety Evaluation 50-520 Evaluation of Control Room Habitability During a Postulated On-site Hazardous Chemical Release Addendum 0

Event Report 38609 Discovery that Propane Tanks On Site Exceeded the Volume Assumed in the Control Room Habitability Toxic Gas Analysis Report January 5, 2002 and Retraction January 22, 2002

USAR Section 2.9.4 Toxic Chemical Study Revision 22

D5 Operability Issue

Draft Root Cause Memorandum D6 Oil Issue January 23, 2002

CR 200200734	Aborted SP 2307 D6 Diesel Generator 6-Month Fast Start Test Due to Increasing Crankcase Pressure During 18-Month PM Run	
SP 2295	D5 Diesel Generator 6-Month Fast Start Test	Revision 22

Safety Injection Accumulator Issue

CR 200200492	Previous IST [Inservice Testing] of Accumulator Outlet Check Valves Does Not Completely Meet the IST Program Requirements	
CR 200201278	Inadequate Operability Determination for Safety Injection Accumulator Discharge Check Valve for CR 200200492	
NRC Information Notice 2000-21	Detached Check Valve Disc Not Detected by Use of Acoustic and Magnetic Nonintrusive Test Techniques	
CR 20010025	Detached Check Valve Disc Not Detected by Use of Acoustic and Magnetic Nonintrusive Test Techniques	
NUREG-1482	Guideline for Inservice Testing at Nuclear Power Plants	April 1995
TS 4.2	Inservice Inspection and Testing of Pumps and Valves Requirements	Revision 60

1R19 Post Maintenance Testing

CR 200200289	Aborted SP 2295, Fast Start Test of D5 Because of Load Imbalance Between Engines 1 and 2 as Directed by Engineer	
SP 2295	D5 Diesel Generator 6-Month Fast Start Test	Revision 22
PM 3001-2-D5	D5 Diesel Generator 18-Month Inspection -Mechanical	Revision 4
WO 0200167	D5 Engine 1 Fuel Rack Positioner	
WO 0200927	Perform Post Maintenance Testing for D6	

1R20 Refueling and Other Outage Activities

Operating Procedure 2C1.4	Unit 2 Power Operation	Revision 27
Operating Procedure 2C1.3	Unit 2 Shutdown	Revision 48

Operating Procedure 2C1.6	Shutdown Operations - Unit 2	Revision 13
Operating Procedure 2C4.1 (with TCN [Temporary Change Notice] 2002-0025)	RCS Inventory Control - Pre-refueling	Revision 14
Special Operating Procedure 2D2	RCS Reduced Inventory Operation	Revision 13
Safety Evaluation 245	Refueling Operations Using One Source Range Detector and One Gamma-Metric Detector	
Design Change 83Y390	Nuclear Instrumentation Upgrade Final Package	Addendum 0
WO 0201537	Install Temporary Modification for Gamma-Metrics Audio Count Rate/Alarm	
WO 0201538	Pre-Operability Testing on Temporary Modification on Gamma-Metrics Audio Count Rate/Alarm	
TS 3.8	Refueling and Fuel Handling	Revision 151
USAR Section 14.5.1	Fuel Handling	Revision 22
Special Operating Procedure D5.2	Reactor Refueling Operations	Revision 28
Checklist	Prairie Island Fuel Transfer Logs - Fuel Shuffle for Unit 2 Cycle 21 Core	
<u>1R22 Surveillance Testing</u>		
SP 2218	Monthly 4KV Bus 25 Undervoltage Relay Test	Revision 33
TS Table 3.5.1, Item 10	4KV Safeguards Busses Voltage Restoration	Revision 103
TS 3.5-2B, Item 8	Loss of Power	Revision 161
TS 4.1-1B, Item 8	Loss of Power	Revision 111
SP 1093	D1 Diesel Generator Monthly Slow Start Test	Revision 72
USAR Section 8.4	Plant Standby Diesel Generator Systems	Revision 23
TS 3.7	Auxiliary Electrical Systems	Revision 160
TS 4.6	Periodic Testing of Emergency Power System	Revision 147
Integrated Checklist C1.1.20.7-1	D1 Diesel Generator Valve Status	Revision 17

Integrated Checklist C1.1.20.7-2	D1 Diesel Generator Auxiliaries and Room Cooling Local Panels	Revision 8
Integrated Checklist C1.1.20.7-3	Diesel Generator D1 Main Control Room Switch and Indicating Light Status	Revision 13
Integrated Checklist C1.1.20.7-4	D1 Diesel Generator Circuit Breakers and Panel Switches	Revision 11
CR 200201419	Locate or Prepare Justification for Leaving D1 and D2 Local Vibration Alarm Out of Service	

1R23 Temporary Modifications

Temporary Equipment Evaluation Screening Form	Temporary Modification 01T106	
NMC [Nuclear Management Company] Standard 10 CFR 50.59 Screening 1323	Temporary Modification 01T106	
WO 0115718	Install Temporary Tent and Heater on Cooling Water Dump to Grade	
WO 0115972	Remove Temporary Tent and Heater on Cooling Water Dump to Grade	
Administrative Work Instruction 5AWI 6.5.0	Temporary Modifications	Revision 10
TCN 2001-2066	5AWI 6.5.0, Temporary Modifications	
USAR Section 10.4.1	Cooling Water System	Revision 22
TS 3.3.D	Cooling Water System	Revision 131

1EP4 Emergency Action Level and Emergency Plan Changes

Prairie Island Nuclear Generating Plant Emergency Plan	Revision 22
Prairie Island Nuclear Generating Plant Emergency Plan	Revision 23

4OA1 Performance Indicator Verification

NEI 99-02	Regulatory Assessment Performance Indicator Guideline	Revision 1
Computer Database	LCO [Limiting Conditions for Operation] Log	1/1/01 - 9/30/01
Computer Database	Unit 1 and Unit 2 Control Room Logs	1/1/01 - 9/30/01
WO 0110640	Solenoid Valve 33493 Did Not Vent Completely Off	



CR 20017083	Entered Unplanned LCO Action Due to 22 TDAWF Pump Recirculation Control Valve 34419 Failure to Open During SP-2102	
CR 20017776	Replace AFW Pump Recirculation/Lube Oil Cooling Solenoid Valves with Models Having Elastomers Rated for Higher Temperature	
CR 20017971	Modify AFW System to Remove the Recirculation/Lube Oil Cooling Control Valves	
Procedure H.33.2	Mitigating Systems Cornerstone Unavailability Performance Indicator Reporting Instructions	Revision 4
CR 20010354	Equipment Problems Were Encountered During Installation of the Safety Injection Mini Recirculation Flow Meter	
CR 20015199	MV-32079, Refueling Water Storage Tank Suction to U1 Pumps Cannot be Locally Operated Due to Handwheel Against Lagging	
CR 20003741	Safety Injection Mini Recirculation Flow Failure	
WO 0108070	MV-32079, Reform Lagging to Allow Manual Operation	
WO 0103294	Safety Injection Recirculation Line Low Flow Alarm	
<u>4OA3 Event Followup</u>		
LER 2-01-05	Manual Reactor Trip on Unit 2, Initiated in Response to a High Differential Pressure Between the Turbine Steam Condensers, Caused by an Inadvertent Venting of One Condenser While Isolating a Steam Leak	
CR 200185657	Manual Reactor Trip Due to Condenser Vacuum Differential Greater Than 2.5 Inches	
<u>2OS1 Access Control to Radiologically Significant Areas</u>		
RPIP 1004	Radiation Protection Implementing Procedures	Revision 3
RPIP 1160	ALARA Review	Revision 5
RPIP 1121	RWP Issue	Revision 16

RPIP 1131	Radiography	Revision 6
RPIP 1135	RWP Coverage	Revision 12
RWP 22015	ISI and Corrosion Inspection	Revision 0
RWP 22022	Steam Generator Primary Manway	Revision 0
RWP 22027	Steam Generator Nozzle Dam	Revision 0
RWP 22035	Reactor Head Lift	Revision 1
RWP 22038	Pressurizer Manway	Revision 0
RWP 22118	Replace Pressurizer Spray Valves	Revision 0
CR 20018107	Construction Electricians Enter Aux. Bld. Without Signing RWP and ED	October 3, 2001
CR 20018286	Radioactive Material Found Outside RCA (715' Turbine Bld.)	October 5, 2001
CR 20018410	Aux. Bld. 715 Material Storage Area Not Labeled Ra Material Area	October 10, 2001
CR 200185159	RP Doing Sample Liner #114 Cask Decon, Contaminated Pants Pocket	October 17, 2001
CR 200185220	Condition Reports Not Written for All Problems (RP Group)	October 19, 2001
CR 200185319	Lead Shielding Was Not Utilized to Lower Worker Dose, U-2 Containment Spray Pump Room	October 24, 2001
CR 200185377	Neutron Reading Taken in Integrate Mode, Resurveyed at ISFSI Pad	October 25, 2001
CR 200185460	1R-11 Filter Paper Installed Incorrectly, Control Room Alarm for Not in Motion	December 12, 2001
CR 200185753	Contaminated Folding Chair in Aux. Bld. Clean Area	November 4, 2001
CR 200185878	Pre-job Brief Improvement Item-Dose Rates for Existing Casks at ISFSI	November 8, 2001
CR 200186300	Worker Attempted to Enter Hi Rad Area Under Wrong RWP	October 20, 2001
CR 200186530	Lack of Rad Protection Support to Complete All Jobs	November 28, 2001

CR 200186648	Personnel Not Wearing ED Within Hand Width of TLD in RCA	December 2, 2001
CR 200186764	Worker Enter U-2 Containment At Power Wearing Regular TLD and Neutron TLD	December 5, 2001
CR 200186862	Area Radiation Field at Access Control Doubled in 7 Years	December 7, 2001
CR 200200256	Exposure Estimate For RWP#405 (Placing Filters in Liner) 43% Overestimated	January 10, 2002
CR 200200694	Radiography Controls Did Not Meet Management Expectations Per RPIP 1131, Radiographing	January 24, 2002
CR 200201060	Engineer Received Dose Alarm Inspection Reactor Head	February 3, 2002
CR 20021243	Radiation Dose For Reactor Head Disassembly Exceeded Goal by 124%	February 7, 2002

1R08 Inservice Inspection

ISI-ET-1.0	Bobbin Coil Data Analysis	January 9, 2002
ISI-NDE-0	Equipment, Personnel and Material Reporting	October 18, 2001
ISI-MT-1	Dry Magnetic Particle Examination	October 18, 2001
ISI-UT-1A	Ultrasonic Examination of Ferritic Piping Weld to Appendix VIII	January 22, 2001
ISI-UT-3	Ultrasonic Examination of Ferritic Vessels	January 5, 2000
ISI-UT-5B	Ultrasonic Examination of Steam Generator Feedwater Nozzle Inner Radii From the Blend Radius	October 7, 1998
20.A.100-1989	Radiographic Examination of Welds (General Requirements)	January 22, 1993
20.A.131-1989	Radiographic Examination of Welds	March 13, 1993
	Unit 2 Inservice Inspection Summary Report, Interval 3, Period 2, Refueling Outage Dates 4-29-2000 To 6-7-2000	September 1, 2000

WO 0103665	Pressurizer Spray Valve (CV 31229) Replacement Shop Weld Radiographs (Welds 1-5)	January 18, 2002
WO 0008645	Pressurizer Spray Valve (CV 31228) Replacement Field Weld Radiographs (Welds 1 & 2)	February 7, 2002