December 14, 2001

Mr. J. Forbes Site Vice-President Monticello Nuclear Generating Plant Nuclear Management Company, LLC 2807 West County Road 75 Monticello, MN 55362-9637

## SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT NRC INSPECTION REPORT 50-263/01-16 (DRP)

Dear Mr. Forbes:

On November 16, 2001, the NRC completed an inspection at your Monticello Nuclear Generating Plant. The enclosed report presents the results of that inspection. The results of this inspection were discussed on November 16, 2001, with you and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and with the conditions of your operating license. Within these areas, the inspection involved a selected examination of procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, the team concluded that in general, problems were properly identified, evaluated, and corrected. The team did not identify any information that would indicate that a safety conscious work environment did not exist. The team did not identify any issues that questioned the operability of safety-related or risk significant plant equipment. The significance threshold for entering issues into your corrective action program appeared appropriate.

In general, the overall corrective action program allowed the station to identify and resolve problems. However, we did note a number of weaknesses in the station's implementation and use of the corrective action program. For example, the inspection team identified examples of corrective action program procedures that were not consistently followed, condition reports that were not assessed in a timely manner, problems that were not elevated to the proper organizational level, and difficulties in determining the extent of condition for problems. Many of the above weaknesses were similar to weaknesses identified during the problem identification and resolution inspection completed in March 2001. Given these weaknesses, it was difficult to identify improvements in the corrective action program since the last problem identification and resolution inspection was conducted. Finally, given the number of implementation problems identified during of this inspection, additional corrective actions are needed to further develop the corrective action program.

J. Forbes

Two "Green" findings were identified during this inspection. One "Green" finding involved a procedural deficiency which resulted in the inadvertent depressurization of the reactor vessel. The second "Green" finding was for failure to identify and correct procedures that did not adequately address Technical Specification surveillance test requirements.

The finding involving a procedure that did not adequately address Technical Specification requirements was determined to be a violation of NRC requirements. However, because of its very low safety significance and because the finding was entered into your corrective action program, the NRC is treating this issue as a Non-Cited Violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this Non-Cited Violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Monticello Nuclear Generating Station.

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 <u>http://www.nrc.gov/NRC/ADAMS/index.html</u> (the Public Electronic Reading Room).

Sincerely,

Bruce L. Burgess, Chief Branch 2 Division of Reactor Projects

Docket No. 50-263 License No. DPR-22

Enclosure: Inspection Report 50-263/01-16(DRP)

See Attached Distribution

DOCUMENT NAME: G:/Mont 2 drp.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		
NAME	GWright/dtp	BBurgess		
DATE	12/14/01	12/14/01		

OFFICIAL RECORD COPY

J. Forbes

J. Purkis, Plant Manager cc w/encl: R. Anderson, Executive Vice President and Chief Nuclear Officer Nuclear Asset Manager Site Licensing Manager Commissioner, Minnesota Department of Health J. Silberg, Esquire Shaw, Pittman, Potts, and Trowbridge R. Nelson, President Minnesota Environmental Control Citizens Association (MECCA) Commissioner, Minnesota Pollution Control Agency D. Gruber, Auditor/Treasurer Wright County Government Center Commissioner, Minnesota Department of Commerce A. Neblett, Assistant Attorney General

J. Forbes

J. Purkis, Plant Manager cc w/encl: R. Anderson, Executive Vice President and Chief Nuclear Officer Nuclear Asset Manager Site Licensing Manager Commissioner, Minnesota Department of Health J. Silberg, Esquire Shaw, Pittman, Potts, and Trowbridge R. Nelson, President Minnesota Environmental Control Citizens Association (MECCA) Commissioner, Minnesota Pollution Control Agency D. Gruber, Auditor/Treasurer Wright County Government Center Commissioner, Minnesota Department of Commerce A. Neblett, Assistant Attorney General

ADAMS Distribution: WDR DFT CFL RidsNrrDipmlipb GEG HBC SXB3 C. Ariano (hard copy) DRPIII DRSIII PLB1 JRK1

# U.S. NUCLEAR REGULATORY COMMISSION

# **REGION III**

Docket No: License No:	50-263 DPR-22
Report No:	50-263-01-16(DRP)
Licensee:	Nuclear Management Company, LLC
Facility:	Monticello Nuclear Power Plant
Location:	2807 West Highway 75 Monticello, MN 55362
Dates:	October 29 through November 16, 2001
Inspectors:	Paul Prescott, Senior Resident Inspector Stephen Burton, Senior Resident Inspector Stuart Sheldon, Reactor Inspector
Approved by:	Bruce L. Burgess, Chief Branch 2 Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000263-01-16(DRP), on 10/29/2001-11/16/2001, Monticello Nuclear Generating Plant, annual baseline inspection of the identification and resolution of problems. The inspection was conducted by a two senior resident inspectors and a regional reactor inspector. Two "Green" findings of very low safety significance were identified during this inspection. One of the findings was associated with a Non-cited violation. The issues were evaluated using the significance determination process.

### A. Inspector Identified Findings

### Identification and Resolution of Problems

The inspection team concluded that the licensee's corrective action program (CAP) contained the appropriate elements to properly identify, evaluate, and resolve problems. Also, the inspection team determined that, in general, station personnel properly identified and entered problems into the CAP using condition reports. The team did not identify any information that would indicate that a safety conscious work environment did not exist. While the overall program provided an appropriate foundation for the station to identify and resolve problems, there were several weaknesses identified in the station's program implementation. Specifically, the team identified examples of the licensee not consistently following the corrective action program procedures, assessing condition reports in a timely manner, identifying problems at the proper level within the organization, and identifying the extent of condition for problems. Many of the above weaknesses were similar to weaknesses identified during the problem identification and resolution inspection completed in March 2001. Given these weaknesses, it was difficult to identify improvements in the corrective action program since the last problem identification and resolution inspection was conducted. Finally, given the number of implementation problems identified during of this inspection, additional corrective actions are needed to further develop the corrective action program.

#### **Cornerstone: Mitigating System**

• Green. The team identified an example of inadequate corrective action for surveillance test procedures failing to meet Technical Specification (TS) requirements. One Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," was identified.

The issue was of very low safety significance since there was no current apparent impact on operability of the affected safety systems. (Section 4OA2.2).

• Green. The team identified that operator actions in the inadvertent venting of the reactor while in hot shutdown conditions due to deficient procedure constituted a significant human performance error.

The issue was of very low safety significance since the actual impact on plant safety was minimal. (Section 4OA2.2).

# B. <u>Licensee Identified Findings</u>

Violations of very low significance which were identified by the licensee have been reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. These violations are listed in section 40A7 of this report.

## Report Details

## 4. OTHER ACTIVITIES (OA)

### 4OA2 Problem Identification and Resolution

- .1 Effectiveness of Problem Identification
- a. Inspection Scope

The team reviewed previous licensee and inspector identified issues related to the seven safety cornerstones in the reactor safety, radiation safety, and safeguards strategic performance areas to determine if problems were appropriately identified, characterized, and entered into the corrective action program. The team also conducted a review of the effectiveness of the processes used at the plant to identify and correct problems. The problem identification program and its effectiveness was evaluated by focused discussions of the program with licensee personnel and a review of various documents including issues identified in previous NRC inspections, selected plant modification and maintenance work orders (WOs) for two high risk systems (reactor core isolation cooling (RCIC) and process radiation monitors), and selected corrective action program documents and records.

In order to determine if problems were being identified at the proper threshold and entered into the corrective action process, the team reviewed inspection reports issued over the past year and selected plant procedures and program description handbooks. In addition, a review of licensee completed effectiveness reviews and root cause analysis, various Condition Reports (CRs) and corrective action documents, and industry operating experience documents was also completed.

Records of internal audits and self-assessments completed by the Monticello corrective action program organization were also reviewed. The team conducted the review to determine whether the audit and self-assessment programs were effectively managed, adequately covered the subject areas, and whether the associated findings were appropriately captured in condition reports. The effectiveness of the audits and assessments were evaluated by comparing the audit and assessment results against self-revealing and NRC-identified issues. In addition, the team interviewed licensee staff regarding the audit and self-assessment programs.

A listing of the specific documents reviewed is attached to the report.

b. Findings

In general, the station adequately identified and entered problems into the corrective action program (CAP). However, the team noted numerous examples of where problem identification was not effective or timely. Many of the examples were similar to conditions identified during the previous Problem Identification and Resolution (PI&R) Inspection (50-263/01-11). While the station demonstrated the ability to identify

problems (as evidenced by the thousands of CRs initiated each year), the team noted weaknesses in the identification of specific issues and potentially adverse trends concerning those issues. These issues are delineated below.

#### Condition Report Initiation

The process for identifying, resolving and trending conditions adverse to quality was defined by Administrative Work Instruction (AWI) 4AWI-10.10.03, "Condition Report Process." Condition reports, initiated for conditions adverse to quality, were evaluated for operability, reportability, and significance. Each CR was assigned a level 1, 2, or 3; with 1 indicating conditions of the highest significance. Procedural guidance was also provided to support the generation of a CR when the merits of an issue were in doubt. Additionally, the licensee stated that WOs, procedure changes, electrical construction discrepancies, training remediation, and the fitness for duty process were acceptable methods for documenting non-significant conditions adverse to quality. Specific issues regarding the initiation, threshold, and effectiveness of the problem identification process are contained below.

Licensee self-assessment reports identified that the percentage of self-identified condition reports was below established goals. In support of this observation, the team noted that between October 29, and November 9, 2001, 26 of 218 condition reports initiated were identified by "other" than station personnel. The licensee's goal was to self-identify greater than 90 percent of all CRs generated. The team noted that based on the percentage of condition reports identified by "other," continued emphasis is needed in self-identification of conditions adverse to quality for the licensee to meet their goal.

#### Trending Program

While to overall trending program was appeared acceptable. The station was able to identify individual, specific deficiencies and entered those deficiencies into the CAP database. However, the team identified specific examples where the trending of issues was weak. For example, conditions adverse to quality were not always evaluated collectively to determine if similar causal factors existed. Examples of problems with trending issues are detailed in the following three subsections.

#### Performance Panels

The licensee's "Corrective Action Program Annual Self Assessment," conducted September 10-14, 2001, noted that monitoring of equipment performance, process performance, and human performance is required quarterly per Procedure 4AWI-10.04.01, "Trending and Analysis." The monitoring was conducted by the Equipment, Process and Human Performance panels. The panels were comprised of representatives from a broad spectrum of site functions. The panels reviewed CRs to evaluate Monticello's processes and identify adverse trends requiring increased management attention. These panel meetings had been suspended around July 1, 2001, but the Procedure 4AWI-10.04.01, remained active. The licensee suspended the panels without first identifying clear replacements. The performance panels were recently re-instituted after it was realized that nothing had replaced the ability to trend condition reports and that the performance panel reviews were a procedural requirement.

The team reviewed the second and third quarter "Trending and Analysis Reports" from the Process, Equipment and Human Performance Panels. The reports contained recommendations for addressing the most significant identified concerns. The team noted that the Management Assessment Team review of the second quarter report was not timely, being conducted approximately  $3\frac{1}{2}$  months after the end of the second quarter.

Because the panels were suspended, a method to promptly identify, evaluate and resolve negative trends did not exist. The team was of the opinion that, had the panels been effectively implemented, many of the trending issues identified during this inspection may have been captured earlier by the licensee.

## Procedures with Limiting Condition for Operation (LCO) Entry Requirements

A number of examples were identified by the team where procedures did not explicitly identify entry into a TS LCO requirement. The condition reports below reflect an unrecognized trend in procedural coordination relative to LCO entry conditions.

- CR 20000686, "Loss of Service Water Rad Monitor Requiring LCO Entry During ECCS [Emergency Core Cooling System] Test 0036-02 Not Noted in Procedure." The surveillance test procedure did not reference entering the LCO upon performing the work. Action to Prevent Recurrence (APR) 20001709, (APR from CR 20000686) "Revise 0036-2 to recognize LCO entry for SW Rad. Monitor," revised the procedure.
- CR 20010846, "Past SGTS [Standby Gas Treatment System] On-line Maintenance Failed to Enter 36-Hour LCO When Doors Were Opened for Access Within Each Filter Unit." The maintenance procedure did not reference entering the LCO upon starting the work. A corrective action revised the tag out to ensure that the doors remain closed on the standby train to preclude the need to enter the LCO during maintenance activities.
- CR 20001032, "Compensatory Action Associated with TB [Turbine Building] HELB [High Energy Line Break] Flooding did Not Consider Rx Mode Changes with TS LCO Active." The Operations procedure did not provide precautions for restricting mode changes when LCOs were active. Action to Correct Condition (ACC) 20001469 (ACC from CR 20001032), "Evaluate Need for a Revision to C.1:STARTUP That Addresses Reactor Mode Changes with an Active Tech Spec LCO," revised the procedure to provide a statement to prohibit the condition.
- CR 20011350, "RHR [Residual Heat Removal] Venting as Performed 1047-03 and B.03.04-05 Has the Potential to Divert LPCI [Low Pressure

Coolant Injection] and CGCS [Combustible Gas Control System] Cooling Flow." Operations did not indicate that affected components should be declared inoperable during venting. APR 20011626 (APR from CR 20011350), "Revise Ops Manual B.03.04-05 and 1047-03 to Include a Statement to Enter the Associated Procedure When Venting the System," resulted in the Operations manual and surveillance test procedure being revised to incorporate reference to an alternate test procedure 2145, which addresses LPCI LCO's.

The examples detailed above provided two distinct opportunities to identify trends. The team noted that procedures were deficient in identifying to operations personnel when plant conditions warranted entry into a TS LCO condition. Also, the cumulative procedure deficiencies indicated a weakness in technical knowledge associated with the development, implementation, and recognition of conditions requiring entry into a LCO.

#### Work Order Trending

A weakness was identified by the team regarding with the integration of work order process and the corrective action program. The corrective action program requires trends to be evaluated within specific time frames based on the frequency of occurrence and their significance. The corrective action program also considers work orders as part of the program. However, the work order program does not contain specific time frames for review of work orders for significant conditions adverse to quality, including trends. Because of the identified disparity between the two programs, the team reviewed a sampling of work orders to determine if a problem existed.

During the team's review of work orders, two concerns were identified. First, there were multiple examples where the completion of work orders had post work reviews performed in excess of the time period allotted by the corrective action process. In fact, a significant number of the work orders did not receive post work reviews for more than one year after the work was completed. Second, the inspection team identified that the licensee had failed to identify a trend associated with the failure of ASCO model 8616 solenoid valve failures. The licensee issued CR 20016733 to evaluate the potential trend associated with solenoid valve failures.

It was apparent that the corrective action program did not have consistent review and closure requirements for the alternate processes (work orders, document control documents, temporary change documents, etc.) used to identify conditions adverse to quality. Consequently, the opportunity to identify, in a timely manner, adverse trends in these alternate processes was missing.

The team considered that the lack of integration between alternate processes and the requirements of the corrective action program a programmatic weakness. As a result of the team's observations the licensee elected for early implementation of a planned change to their corrective action program that provided a single entry point for disposition of all conditions. It is anticipated that the new process should minimize trending and programmatic integration issues.

#### Effectiveness of Licensee Audits and Assessments

The team concluded that, in general, the safety audit and off-site review committees were effective at evaluating effective corrective program implementation. The team found that, in most cases, licensee audits and assessments results were entered into the CAP, and that CRs were written for significant issues. However, multiple licensee audits and NRC inspections identified long-standing repetitive problems associated with problem identification and completion of corrective actions. For example, the "Corrective Action Program Self-Assessment Evaluation Report," issued in November 2000, documented that the timeliness of the completion of condition report assessments was not consistent with industry norms. The self assessment detailed that the timeliness issue could adversely impact identification of "the extent of condition" of problems. Recently, The "Corrective Action Program Annual Self Assessment," conducted in September 2001, identified that further emphasis was needed for self-identification of CR issues and continued attention was needed in the area of timeliness.

The team's review of the licensee's self-assessments indicated that timeliness of corrective actions was a long-standing problem. However, the team did note a significant improvement in assessment timeliness (of the CAP statistics) over the last two quarters.

### .2 Prioritization and Evaluation of Issues

#### a. <u>Inspection Scope</u>

Inspection reports and corrective action documents were reviewed to verify that identified issues were appropriately characterized and entered into the licensee's CAP. The team also attended management meetings to observe the assignment of CR categories for current issues and the review of root cause analyses and corrective actions for existing CRs.

An independent assessment of the prioritization and evaluation of selected CRs was conducted by the inspection team. This assessment included a review of how the licensee assigned priorities to condition reports, and any supporting operability and reportability determinations. The assessment also evaluated the extent of condition reviews, root cause investigations, and the appropriateness of assigned corrective actions. Other attributes reviewed by the team included the adequacy of the root cause analyses and the corresponding corrective actions. The team also assessed licensee evaluations of NCVs.

The team also reviewed the licensee staff's efforts to capture industry operating experience (XOE) issues in the CAP. Documents reviewed included the licensee's assessment of industry operating event reports, NRC, and vendor generic notices.

A listing of the specific documents reviewed is attached to the report.

#### b. Findings

One Green finding and associated NCV was identified for the failure to take adequate corrective actions for a CR that identified a problem with procedures not meeting TS surveillance test requirements. Also, one Green finding was identified for the poor performance by the dayshift crew on October 24, 2001, which lead to the inadvertent partial depressurization of the reactor vessel. Associated with this event, the licensee identified a violation for an inadequate procedure review.

In general, the team determined that issues were appropriately characterized and classified, and appropriate evaluations were conducted for significant conditions adverse to quality. The team reviewed the licensee's proposed corrective actions for NCVs issued during the last year and noted no concerns with the proposed corrective actions. Likewise, the team's review identified no significant concerns associated with the licensee's operating experience program.

A review of Level 1 investigation reports identified that few of the reports followed the format required in Procedure 4AWI-10.01.05, "Investigation of Level 1 Condition Reports." The team noted that the September 10-14, 2001 "Corrective Action Program Annual Self Assessment" had identified the same concern. The licensee has recently instituted a process for the CARB to review all Level 1 investigation reports as they are completed. The first such review was scheduled to take place shortly after this inspection is completed.

While the team did not identify any significant concerns with the root causes identified in the Level 1 reports, the team did note weaknesses associated with the licensee's risk analyses. Licensee procedures required that the root cause report should identify the plant-specific risk consequence(s) of the issue. The risk analyses were weak and often contained little or no quantitative data. By not quantitatively evaluating plant events or conditions, the licensee may be missing opportunities to more effectively use its resources in addressing identified problems.

The team identified examples of conditions adverse to quality which were not thoroughly evaluated. One example involved a failure to evaluate the "extent of condition" of surveillances not addressing TS requirements. The other example was a failure to fully evaluate the effects of a procedure change. The examples included:

#### Technical Specification Surveillance Test Requirements

Condition Report 20010904, "TS 4.7.E Requirement to Perform Resistance to Ground Check on All Heaters Not Done for CGCS [Combustible Gas Control System] Trickle Heaters," identified a failure of a surveillance test procedure to meet a TS surveillance test requirement. This CR was closed to CR 20003610 (LER 2000-014), an earlier report which identified that a standby liquid control (SLC) system surveillance test had been missed because the surveillance test procedure did not properly address the TS requirements. APR 20003898 was generated to address the extent of condition of this missed surveillance test. The licensee closed APR 20003898 to a "2DO" Item 20013432 (2DO items are actions which do not originate from a CR, but are initiated to track a

management action item). Subsequently, the licensee closed the 2DO item because no significant non-compliance rate existed. The team observed that the decision to close the 2DO item was completed without ensuring that the original condition adverse to quality was corrected.

#### Significance Evaluation

Green. The inspectors reviewed this issue against the guidance contained in Appendix B, "Thresholds of Documentation," of Inspection Manual Chapter (IMC) 0610\*, "Power Reactor Inspection Reports." The inspectors determined that with regard to the Group 1 questions in IMC 0610\*, the issue had a credible or actual impact on safety. This issue impacted safety because the failure a surveillance test to address of the TS surveillance test requirements would hinder the ability to identify inoperable safety related systems and components inoperable. As a result, the inspectors reviewed this issue against the Group 2 questions to determine if the issue impacted one or more cornerstones. The inspectors determined that the "Mitigating Systems" cornerstone was affected since systems relied upon to address a design basis event, were potentially impacted. As a result, the inspectors evaluated this issue utilizing the guidance prescribed by IMC 0609, "Significance Determination Process." The inspectors determined that since the "Mitigating Systems" cornerstone was affected, that a Phase 1 Significance Determination Process (SDP) evaluation was required. The inspectors conducted this review utilizing "SDP Phase 1 Screening Worksheet For IE [Initiating Events], MS [Mitigating Systems], and BI [Barrier Integrity] Cornerstones." The inspectors determined that since there was no current impact on the operability of the potentially affected safety systems, the finding screened out as Green.

#### **Enforcement Actions**

10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected. The closure of the 2DO item associated with CR 20003610 and APR 20003898 without ensuring that adequate corrective actions were implemented was an example where the requirements of 10 CFR 50, Appendix B, Criterion XVI, were not met and was a violation. However, because of the very low safety significance of the item and because the licensee has included this item in the corrective action program (CR 200117038), this corrective action violation is being treated as a Non-Cited Violation (NCV 50-263/01-16-01(DRP)).

#### Inadvertent Reactor Vessel Partial Depressurization

On October 23, 2001, an inadvertent reactor scram occurred when a radiation protection technician performing routine activities accidently bumped an instrumentation rack in the reactor building and caused a Group 1 isolation signal. All main steam isolation valves (MSIVs) closed as designed and the reactor automatically scrammed as expected. On the morning of

October 24, 2001, as the operating crew was performing daily checklist activities for the shutdown condition, reactor operators reached a checklist step which discussed verifying that an appropriate reactor vessel vent path existed. The previous crew had appropriately marked this checklist step as "not applicable" for hot shutdown conditions. The oncoming day shift crew, after some discussion, inappropriately evaluated the procedure and determined that the step was appropriate. Consequently, the operators vented the reactor vessel to the main condenser via the main steam line drains. This action resulted in reactor pressure decreasing from the nominal 920 psig to approximately 740 psig before operators secured the vent path.

During a review of the sequence of events related to the depressurization event the team determined that the licensee had failed to recognize the significance of the operating crew's lack of understanding of existing plant conditions and place that issue into their CAP in a timely manner. Initially after the event on the morning of October 24, 2001, the licensee had generated a single condition report, CR 20016451, related to the checklist or procedure inadequacies associated with the event, and then only after station senior managers had directed that a CR be generated. The licensee identified that the procedure had been inadvertently modified to remove the caution to only vent the reactor in cold shutdown conditions. This condition report was closed on October 25, 2001.

An additional condition report, CR 20016493, relating to the human performance aspects of the depressurization event was generated late on October 25, 2001, but only after station management personnel had been contacted several times by NRC regional management to discuss the issue. Following the event on October 24, 2001, and throughout most of the day on October 25, 2001, licensee personnel at all levels of the organization remained fixed on the low risk significance of the issue and the minimal actual plant impact, and did not recognize the potential condition adverse to quality related to the day shift crews poor performance.

#### Significance Evaluation

The team reviewed this event and determined that it was more than a minor issue in that it had an actual and credible impact on plant safety. Furthermore, the team determined that the issue impacted the mitigating systems cornerstone of reactor safety in that it could have credibly affected the operability, availability, and function of both the high pressure coolant injection (HPCI) and RCIC systems, as well as caused reactor vessel cool-down limits to have been exceeded, had the depressurization been more severe.

The team used the SDP phase 1 evaluation process to determine the potential risk significance of the finding. Although operator actions in venting the reactor constituted a significant human performance error, the actual adverse impact on the plant and the increase in potential risk for reactor core damage were minimal. As a result, the finding was determined to be of very low significance and within the licensee's response band (Green).

### **Enforcement Actions**

The crew on duty on the morning of October 24, 2001, had incorrectly determined that the venting step was applicable to all reactor shutdown conditions. Upon further review, the team determined that such a conditional requirement relating to cold shutdown had been included in an earlier form of the checklist, but for unknown reasons had been deleted during a revision to the document. The inadequate procedure violation is a licensee identified NCV documented in Section 40A7 of this report.

### .3 Effectiveness of Corrective Action

### a. Inspection Scope

The team reviewed selected CRs and associated corrective actions to evaluate the effectiveness of corrective actions. The team reviewed CRs, operability determinations, and root cause reports to verify that corrective actions, commensurate with the safety significance of the issues, were identified and implemented in a timely manner, including corrective actions to address common cause or generic concerns. The team also verified the implementation of a sample of corrective actions. The samples were selected based on their importance in reducing operational risks. The team reviewed information recorded since July 2000. The review included specific focus on the RCIC and Process Radiation Monitor systems.

A listing of the specific documents reviewed is attached to the report.

## b. Findings

Recent station performance problems included untimely problem evaluation and inadequate action to correct recurring problems. Examples noted by the team and detailed below identified that two out of five effectiveness reviews identified inadequate actions to prevent recurrence of the problem.

The team's review of the RCIC and process radiation monitor systems identified no risk significant findings. A number of CRs documented unplanned LCO entries due to reactor building ventilation wide range gas monitor failures over the last two years. The corrective action to upgrade the monitors has been planned and prioritized by the licensee's review committee, but has not yet been funded for implementation. The licensee's time-frame to complete the upgrade of the monitors appeared adequate.

Examples of issues regarding program effectiveness are described in the following sections.

## Effectiveness Reviews

Formal effectiveness reviews of corrective actions for significant conditions adverse to quality had just been implemented prior to the last PI&R inspection. These reviews have been conducted for Level 1 CRs that have been closed for approximately 1 year. The team reviewed a sample of five representative effectiveness reviews. The reviews appeared thorough and the licensee identified that, for two of the samples (CR 19962286 and CR 19961974), the actions to prevent recurrence were not effective. Condition reports were written to document the findings.

#### Timeliness of Problem Evaluation

Procedure 4AWI-10.01.01, "Condition Reporting," Section 4.3, requires that Level 1 CRs be assessed within 30 days and Level 2 CR assessments are completed within 60 days. The team identified 76 Level 1 and 2 CRs that took over 100 days to be assessed. The total number of CRs that were assessed in excess of procedural guidelines far exceeded the 76 reviewed. The team considered this an additional example of an adverse trend that was not properly identified and corrected.

#### Assessment of Actions to Correct Conditions and Actions to Prevent Recurrence

The team reviewed the backlog of ACCs and APRs to assess the significance, age and the number of backlog items. The team reviewed the open backlog report and found that there were 611 open ACCs and 408 APRs. The age of the backlog for ACCs ranged back to 1993, with approximately 150 of 611 remaining open from dates prior to 2001. The age of the backlog APRs ranged from current back to 1995, with approximately 115 of 408 remaining open from dates prior to 2001. Due to time constraints, the team could not fully evaluate the overall safety significance of the backlog.

## .4 Assessment of Safety-Conscious Work Environment

#### a. Inspection Scope

The team interviewed plant staff to assess whether there were impediments to the establishment of a safety conscious work environment.

During the conduct of interviews, document reviews and observations of activities, the team looked for evidence that suggested plant employees may be reluctant to raise safety concerns. The team also discussed the implementation of the Employee Concerns Program with the station's program owner. Additionally, the team reviewed a recent self-assessment of the station's Employee Concerns Program.

## b. Findings

The team did not find any reluctance by station employees to raise safety issues. The results of a recent survey performed by the licensee concluded that there were areas for improvement, which were being properly addressed by the licensee. Plant employees felt that management was supportive in identifying and correcting safety problems.

## 4OA6 Management Meetings

### Exit Meeting Summary

The team presented the inspection results to Mr. J. Forbes and other members of licensee management on November 16, 2001. The licensee acknowledged the findings presented. The team asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

### 40A7 Licensee Identified Violations

The following finding of very low significance was identified by the licensee and is a violation of NRC requirements which met the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as a Non-Cited Violation (NCV).

|--|

50-263/2001-16-02 Appendix B to 10 CFR 50, Section V, "Instructions, Procedures, and Drawings," states in part that: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings." Contrary to this requirement, a procedure checklist utilized by operators to vent the primary system was not appropriate in that the procedure did not specify that a vent path was only to be established during cold shutdown conditions.

# PARTIAL LIST OF PERSONS CONTACTED

## <u>Monticello</u>

- J. Forbes, Site Vice President
- J. Purkis, Plant Manager
- E. Weinkam, Director of Regulatory Services
- D. Fadel, Engineering Director
- S. Ludders, Principal Operations Specialist
- P. Hartman, Licensing Engineer
- G. Breveg, Nuclear Oversight Manager
- D. Neve, Licensing Manager
- E. Sopkin, Operations Manager
- C. Schibonski, Experience Assessment Manager
- T. Parker, Corrective Action Programs

## <u>NRC</u>

B. Burgess, Chief, Reactor Projects Branch 2

## ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Opened</u>		
50-263/2001-16-01	NCV	Technical Specification Surveillance Test Requirements not Met
50-263/2001-16-02	NCV	Inadvertent Reactor Vessel Partial Depressurization
<u>Closed</u>		
50-263/2001-16-01	NCV	Technical Specification Surveillance Test Requirements not Met
50-263/2001-16-02	NCV	Inadvertent Reactor Vessel Partial Depressurization
Discussed		

None

# LIST OF ACRONYMS USED

ACC	Action to Correct Condition
APR	Action to Prevent Recurrence
AWI	Administrative Work Instruction
CAP	Corrective Action Program
CARB	Corrective Action Review Board
CFR	Code of Federal Regulations
CGCS	Combustible Gas Control System
CR	Condition Report
DRP	Division of Reactor Projects
ECCS	Emergency Core Cooling System
EOP	Emergency Operating Procedure
HELB	High Energy Line Break
HPCI	High Pressure Coolant Injection
IMC	Inspection Manual Chapter
IR	Inspection Report
ISI	Inservice Inspection
IST	Inservice Test
LCO	Limiting Condition for Operation
LER	Licensee Event Report
LOCA	Loss of Coolant Accident
LPCI	Low Pressure Coolant Injection
MCC	Motor Control Center
MSIV	Main Steam Isolation Valve
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
PI&R	Problem Identification and Resolution
PMI	Post-Maintenance Testing
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
RHRSW	Residual Heat Removal Service Water
SAR	Safety Analysis Report
SUP	Significance Determination Process
	Standby Gas Treatment System
SEC	Stalluby Liquid Control Senior Reactor Operator
SSEE	Safety System Functional Failure
S/M/	Service Water
TR	
TS	Technical Specification
VDC	Volts Direct Current
WO	Work Order
XOE	Operating Experience

# LIST OF BASELINE INSPECTIONS PERFORMED

The following inspectable-area procedures were used to perform inspections during the report period. Documented findings are contained in the body of the report.

	Inspection Procedure	
		Report
Number	<u>Title</u>	Section
71152	Problem Identification & Resolution	40A2
(none)	Meetings, Including Exit	4OA6

# LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection. Inclusion of a document on this list does not imply that NRC inspectors reviewed the entire document, but, rather that selected sections or portions of the document were evaluated as part of the overall inspection effort. In addition, inclusion of a document on this list does not imply NRC acceptance of the document, unless specifically stated in the body of the inspection report.

## Miscellaneous Corrective Action Program References

Internal Audit Report Engineering AG 2000-E-1 (Modification)

Internal Audit Report Engineering AG 1999-E-4 (Design Bases Control)

Internal Audit Report Plant Support AG 2001-S-1 (Emergency Preparedness (10CFR50.54t)

Internal Audit Report Engineering AG 2001-E-4 (Corrective Action)

**Operations Annual Effectiveness Report 2000** 

Operations Integrated Improvement Plant (2001-2002)

SAC Meeting 2001-1 February 15, 2001

SAC Meeting 2001-2 September 17, 2001

Off-Site Review Committee(OSCR) Meeting 2001-01 Key Issues

Generation Quality Services (Quality Assurance) Observation Report 2000186, Corrective Action Program Review

Generation Quality Services Observation Report 2000187, Condition Report Process

Generation Quality Services Observation Report 2000190, Condition Report Program Self Assessments

Corrective Action Program Annual Self	(Sept 10-14, 2001)
Assessment	

Maintenance Department Quarterly 4th Quarter 2000 Effectiveness Report

Equipment Performance Panel Trending and Analysis Report	3rd Quarter 2000
Plant & NGS Engineering Quarterly Effectiveness Report	4th Quarter 2000
Quarterly Operator Work Around (OWA) List Review and Assessment Internal Audit Report	March 28, 2000
Equipment Performance Panel Trending and Analysis Report	4th Quarter 2000
Process Performance Panel Trending and Analysis Report	1st Quarter 2000
Monticello Maintenance Performance Indicator	1st Quarter 2000
Equipment Performance Panel Trending and Analysis Report	2nd Quarter 2000
Operations Department Quarterly Effectiveness Report	2nd Quarter 2000
Corrective Action Process Self Assessment Evaluation Report	11/27/2000
Maintenance Department Quarterly Effectiveness Report	3rd Quarter 2000
Operations Department Quarterly Effectiveness Report	1st Quarter 2000
Process Performance Panel Trending and Analysis Report	2nd Quarter 2000
Plant Maintenance Department Self Evaluation Report	3rd Quarter 2000
Corrective Action Process Self Assessment Evaluation Report	November 27, 2000
Process Performance Panel Trending and Analysis Report	3rd Quarter 2000
Equipment Performance Panel Trending and Analysis Reports	1st, 2nd , and 3rd Quarters of 2000
Process Performance Panel Trending and Analysis Report	4th Quarter 2000
Monticello Operations Department Self Assessment Report	2nd Quarter 2000

Equipment Performance Panel Trending and Analysis Report	1st Quarter 2000
Operations Department Quarterly Effectiveness Report	4th Quarter 2000
Engineering/Operations Self Assessment - Supplemental Report - Identification and Reporting of Equipment Problems	1/24/00
Independent Assessment of the Effectiveness of the Operations Improvement Plan	October 2000
Operations Department Quarterly Effectiveness Report	3rd Quarter 2000
Work Order Self-Assessment	4/15/00
Human Performance Panel Trending and Analysis Report	1st Quarter 2000
Human Performance Panel Trending and Analysis Report	2nd Quarter 2000
Work Order Self-Assessment	7/12/00
Human Performance Panel Trending and Analysis Report	3rd Quarter 2000
Human Performance Panel Trending and Analysis Report	4th Quarter2000
Process Performance Panel Trending and Analysis Report	1st Quarter 2001
Corrective Action Review Board Minutes	January 5, 2001
Equipment Performance Panel Trending and Analysis Report	1st Quarter 2001
Corrective Action Review Board Meeting Minutes	May 7, 2001
Corrective Action Review Board Meeting Minutes	June 4, 2001
Human Performance Panel Trending and Analysis Report	1st Quarter 2001
Human Performance Panel Trending and Analysis Report	2nd Quarter 2001
Human Performance Panel Trending and Analysis Report	3rd Quarter 2001

	Equipment Performance Panel Trending and Analysis Report	2nd & 3rd Quarters 2001
	Process Performance Panel Trending and Analysis Report	2nd & 3rd Quarters 2001
	List provided of Unplanned LCO's Starting with 20010000	10/22/01
	Operations Department Quarterly Effectiveness Report	2nd Quarter 2001
	Quarterly Self Evaluation Report 2nd Quarter 2001 - Operator Knowledge and Skills, Training and Qualification of Ops Personnel	7/5/01
	Maintenance Department Quarterly Effectiveness Report	1st Quarter 2001
	Plant Maintenance Department Self Evaluation Report	1st Quarter 2001
	Management Assessment Team Minutes for 2nd and 3rd Qtr 2001	October 15, 2001
	Operational Quality Assurance Plan	Rev. 24
	Operational Quality Assurance Plan Appendix A (pages 61-66)	Rev. 24
	Work Order Self-Assessment	10/15/99
	Engineering/Operations Self Assessment - Identification and Reporting of Equipment Problems	12/2/99
	Engineering/Operations Self Assessment - Final Report - Identification and Reporting of Equipment Problems	12/29/99
	Operations Department Self Evaluation Report	4th Quarter 1999
	Operations Department Quarterly Effectiveness Report	4th Quarter 1999
	Nuclear Oversight Third Quarter 2001 Assessment Report for Monticello	DRAFT
Procedures		
0255-03-IA-1	Procedure 7120Revision 8, Setpoint Change Request for FY-4104	Revision 30

0255-04-IA-1	RHR Pump and Valve Test	
4AWI-02.01.01	Document Control	Rev. 11
4AWI-02.01.08	Form 3087 (Document Change, Hold and Comment Form) Process	Rev. 2
4AWI-02.02.05	Temporary Change Process	Rev. 8
4AWI-04.05.01	General Work Controls	Rev. 11
4AWI-04.05.02	Requesting Work and Work Order Preparation	Rev. 16
4AWI-04.05.03	Work Order Review	Rev. 12
4AWI-04.05.04	Conduct Of Maintenance, Alterations and Design Changes	Rev. 13
4AWI-04.05.05	Work Order Closeout and Disposition	Rev. 11
4AWI-04.05.06	Post Maintenance Testing	Rev. 7
4AWI-04.05.07	Procedure Implementation	Rev. 8
4AWI-04.05.08	Setpoint Change Request Control	Rev. 4
4AWI-04.05.09	Foreign Material Exclusion/Cleanliness Control	Rev. 7
4AWI-04.05.10	Scaffolding Controls	Rev. 3
4AWI-04.05.11	Temporary Shielding	Rev. 1
4AWI-04.05.12	Replacement of Failed Fuses	Rev. 2
4AWI-04.05.13	Control of Items in the Spent Fuel Pool	Rev. 3
4AWI-04.05.14	Substation Work Order	Rev. 1
4AWI-04.05.15	Control of Troubleshooting Activities	Rev. 0
4AWI-08.09.02	Trending Program	Rev. 8
4AWI-10.01.01	The Corrective Action Process	Rev. 8
4AWI-10.01.02	Employee Observation Reporting	Rev. 2
4AWI-10.01.03	Condition Report Process	Rev. 17
4AWI-10.01.03	The Condition Report Process	Rev. 16
4AWI-10.01.04	Operability Determinations	Rev. 4
4AWI-10.01.05	Investigation of Level 1 Condition Reports	Rev. 4
4AWI-10.01.06	External Operating Experience	Rev. 2

4AWI-10.01.07	Cause Coding	Rev. 1
4AWI-10.02.01	Actions To Correct Conditions and Prevent Recurrence	Rev. 1
4AWI-10.04.01	Trending and Analysis	Rev. 0
4AWI-10.05.01	Management Assessment of Plant Performance	Rev. 1
4AWI-10-05.02	Self-Assessment Program	Rev. 3
EWI-08.09.02	System Engineering Group Trending Program	Rev. 6
IPC M00-023	Replace/Upgrade the Drywell CAM Radiation Monitoring System	
IPC M01-007	Replacement of WRGM Grab Sample Timers	
IPC M00-089	Redundant Service Water Sample Pump and Y-Strainer	
IPC M01-067	Upgrade of Stack and RBV WRGM Systems	
Condition Reports		
CR 20016530	Clarification is Needed for Reporting 4-Hour Non-Emergency Events per 10 CFR 50.72 for Security Incidents on Site	
CR 20016560	Workers Observed Standing on Heating Steam Piping in Intake Structure	
CR 20016818	CA-94-017 Lacks Rigor in Assumptions and Calculation of Setpoints	
CR 20016842	Potential Failure to Report 3 LERs [Licensee Event Reports] as SSFF's [Safety System Functional Failures] in the 2nd Qtr NRC Performance Indicator Report	
CR 20016848	Jumper/Bypasses Installed Despite Not Meeting Applicability Statement in Section 2.1 of 4AWI-04.04.03	
CR 20016849	Insufficient Application of Work Controls Challenges Breaker/Fuse Coordination of 125 VDC [Volt Direct Current] System	
CR 20016897	Adverse Trend - Too Many Unplanned LCOs [Limiting Conditions for Operation] in 2001	

CR 20016970	Sketch No. 3 for Jumper Bypass No. 01-08 is Incorrect in that it Should Show the Wiring Change Entirely Within C-225
CR 20016975	Operations Manual B.04.02-05.C. Power Supply List Note 2 Was Not Updated to Reflect Wiring Changes Under Jumper Bypass 01-08
CR 20011256	HPCI-32 May Have a Safety- Related Function in the Close Direction that is Not being Tested
CR 20003478	PMT Form for WO 9908661 (Inspect YS-4262) Could Not be Located. Proper Operation was Verified by Other Tests
CR 20013604	Received Unexpected Alarm 252-B-7 Radiation Monitor Trip, Recombiner Cam High Alarm
CR 20015454	Drywell Continuous Air Monitor Declared Inoperable due to High Counts Not Consistent with Grab Sample Counts
CR 20014850	Unplanned LCO for "A" RBV WRGM per Procedure 0249-A Step 38 Timer would Not Initiate, Step 39 Directs Entry into LCO
CR 20014802	Unplanned LCO Entry "B" RBV WRGM, (LCO was Entered for Cal. 0298, the Keypad Locked and Display was Lost Remained in LCO
CR 20011254	Safety-Related Close Position for Core Spray Discharge Check
CR 20014791	RBV WRGM Channel "B" Indication is Abnormal. (LED Display Lights and the Display Window have a Strobelike Flash)
CR 20014674	Unplanned LCO Entry due to "A" RBV WRGM Reading Erratic and Greater than 2 Times "B" RBV WRGM
CR 20013638	Stack WRGM Channel "A" Mid Range Detector as Found Value Outside Acceptance Range during Performance of Calibration
CR 20000740	Verification that MCC Contactors for MOVs will Not Drop Out During ECCS Loading Sequence
CR 20012997	"A" Stack WRGM LCO Extended due to Additional Required Maintenance Activities

CR 20011078	Testable Check Valve Air Operators have Not been Evaluated to the Requirements of Section XI, IXV-3522(b)
CR 20012991	Entered Unplanned LCO for a Failure of the Low Range Timer on "A" RBV WRGM
CR 20000544	Self Assess INPO [Institute of Nuclear Power Operations] "Principles of Effective Self-Assessment and Corrective Action Programs," December 1999
CR 20001717	CR Process Not being Fully Utilized by All Sites Groups
CR 20001718	Develop CR Performance Indicators
CR 20001719	Improve Root Cause Techniques
CR 20001720	Improve Investigation Techniques for the Corrective Action Program
CR 20001721	Improve the Documentation of Investigation Activities
CR 20001722	Provide Procedural Guidance on the Knowledge and Skills Required to Conduct Problem Analysis/Corrective Action Determination
CR 20001723	Develop Performance Indicators for Timeliness
CR 20001815	Consultant's Comments on the Monticello Corrective Action Process
CR 20001842	Develop a Long Range Schedule for Self Assessments
CR 20001843	Revise 4 AWI-10.05.02 on Use of Less Experienced Staff, Outside Members or Management on Self Assessment Teams
CR 20001844	Develop Written Instructions for Determining High Industry Standards or Benchmarking for the Self Assessment Process
CR 20001845	Formalize Training Requirements for Self Assessment Team Members

CR 20001846	Revise 4 AWI-10.05.02 to Add Additional Items to be Considered in Preparing for Focused Self Assessments 20001847 Provide Management Expectation for Completion of CR Actions that Meet Industry Standards
CR 20001848	Revise 4 AWI-10.05.02 to Provide an Overall Review of Self Assessment Program Effectiveness
CR 20003033	The Equipment Performance Panel Identified Potentially Adverse Trends in Equipment Performance
CR 20003293	To Enhance CR Process by Adding an Associated Field to CHAMPS [Computer Software for Writing CRs and WOs] Issues Module which would be Used to Document the Failed Equipment Type
CR 20004381	Monticello SAC [Safety Audit Committee] Corrective Action Subcommittee Report (10/17/00) Identified Areas for Improvements
CR 20004382	Determine a Management Expectation for the Resources Needed to Assess a Level 2 CR and Communicate Expectation
CR 20004384	Consider Publishing the CAP [Corrective Action Program] Indicators Once They Represent a True Picture of the Program Health
CR 20004386	Consider a Requirement to Generate a CR for Each Red Performance Indicator Window
CR 20004484	Concern with Potential Ineffective Interim Corrective Actions and/or Untimely Evaluations and Actions to Prevent Recurrence Should be Evaluated in the Assessment of the Second Event [Securing of HELB Door]
CR 20004485	Implement Process for QA [Quality Assurance] to Perform Effectiveness Reviews
CR 20012591	Unplanned LCO Entry due to Increased DW CAM Radiation Level
CR 20004842	CARB Should Review the Proposed Timeliness Goals

CR 20004876	There is No Timeliness Expectation or Guidelines in 4 AWI-10.01.03 for the Completion of CR Assessments
CR 20004881	Condition Reports Found Where Reviews and Final Approval Were Inadequate by Not Identifying or Correcting Documentation
CR 20004883	Examples of Provision for Due Date Extensions for Condition Reports Not Being Used
CR 20004934	Increase Site Personnel Awareness of the CARB Performance Indicators 20004935 Re- emphasize the Fact that Condition Report Actions Need Not be Completed Prior to Completing the Assessment
CR 20010900	Contrary to AWIs a CR was Not Initiated when an Equipment Issue was Identified Resulting in Delayed Notification of SM [Shift Manager]
CR 20012576	Unplanned LCO Entry Due to Increased DW CAM Radiation
CR 20012290	Entered Unplanned LCO for the SW Rad Monitor FI-4954
CR 20012197	Unplanned LCO Entered When "B" RBV WRGM Failed
CR 20010194	Deficient Procedures Fail to Require Indep Verif Following
CR 20010344	NIS-2 Forms Not Filled Out in Accordance with 1986 ASME
CR 20010431	Appropriate LCOs Not Entered when Available Information
CR 20011382	During Cycle Calibration of Main Steam Line Radiation Mon Ch "B", as Found/as Left Data Out of Acceptance Criteria
CR 20010537	CRD System Repairs/Replacements Not Reviewed by ANII
CR 20010539	Some Snubbers on Safety-Related Systems Shown on the Color Coded P&ID'S
CR 20010540	ASME Section XI NIS-2 Forms Not Completed for the 1993 RFO

CR 20010542	SBLC System Section XI Non-Compliance Regarding NIS-2 Form 20010543 WO 00-00635 for Buff/Blend on Nozzle N2C had Section XI
CR 20010553	NIS-2 Forms Not Completed for ESW and EDGESW System Repairs
CR 20010585	Review of Work Orders Indicates Bolting/Fastener
CR 20010681	ASME Section XI NIS-2 Forms Not Completed for RSW System
CR 20010682	Section XI Review was Not Performed on a DC Package
CR 20010683	No NIS-2 Forms Completed for Mod 95Q105, Non-Oxidizing
CR 20010685	ASME Section XI Requirements Not Met for Mod 96Q150, Rev.1
CR 20010747	All Requirements of Section XI Not Met for Mod 92Q520
CR 20010750	NIS-2 Form Incorrectly Identified DC 00A045 Versus 98Q045
CR 20010754	No NIS-2 Form was Completed for Modification 98Q050
CR 20010791	ASME Section XI ANI Forms Not Completed for All RHR System
CR 20010792	Seal Weld Replaced on SV-4033B Without Required ASME Repair
CR 20010828	Lack of ANII Involvement in Emergency Service Water System
CR 20010846	Past SBGT On-Line Maintenance Failed to Enter 36-hour LCO
CR 20010904	Technical Specification 4.7.E Requirement to Perform Resistance to Ground Check
CR 20010985	Ten Minute Torus Cooling Assumption for Design Basis
CR 20011046	ASDS Design Deficiency Results in Vulnerability to a Single Failure

CR 20011078	Testable Check Valve Air Operators have Not been Evaluated
CR 20011082	Plant Shutdown Commenced due to HPCI and Both LPCI Injection Check Valves
CR 20011236	MNGP Section XI IST Extent of Condition Assessment.
CR 20011420	Potential to Pressurize HPCI & RCIC Suction Piping Above Design Pressure Not Recognized in Check Listing of 50.59 Screenings for Procedures
CR 20011256	HPCI-32 may have a Safety-Related Function in the Close Direction
CR 20011446	Core Spray Pump Discharge Check Valves Not Tested Properly
CR 20011477	Sect XI Tests at MNGP and DAEC Use Markedly Different
CR 20011481	Bechtel Calculation Used Incorrect Load Combination
CR 20011482	Check Valves HPCI-20 and RCIC-14 Determined to have a Close Function
CR 20011860	Construction Error Results in Failure to Perform Periodic
CR 20012154	"A" SBGT Failed Tech Spec Surveillance
CR 20016420	Individual Bumped Instrument Rack Resulting in Group 1 Isolation
CR 20016273	Replace Condensate Demineralizer Switch Covers on Panel C-80 with More Dependable Method
CR 20016222	Switch Covers Installed per APR Action Associated with CR 20012592 Discovered Not Installed
CR 20012582	Personnel Error During Condensate Demin Processing Results in Reduction in Condensate Flow
CR 20010097	CV-1474 Failed to Close Completely

CR 20011860	Construction Error Results in Failure to Perform Periodic Testing of One Instrument Line Excess Flow Check Valve
CR 20011303	RBV WRGM B Filter Paper was Mis-Positioned Causing Sample Flow to By-Pass the Particulate Filter During Sampling. 20011349 during Cycle Calibration of Main Steam Line Radiation Mon Ch "A", as Found/as Left Data Out of Acceptance Criteria
CR 20011211	Adverse Trend of Failure of RBV and Stack WRGM Grab Sample Timers
CR 20011166	Entered Unplanned LCO upon Finding a Failed Timer on "B" Stack WRGM while Performing 0162-A Stack WRGM Functional Test
CR 20010999	Entered Unplanned LCO for DW CAM During Performance of Month Test 0386 when Vacuum Reading Exceeded Limit in Procedure
CR 20010784	11 EDG Alarm 93-A-19 (Raw Water) Received Shortly After 11 EDG Began Idle on Shutdown
CR 20010959	Model Number of Barksdale Pressure Switches Evaluated in EQ Calculation CA-98-010 does Not Match Installed Model
CR 20011222	Small Amount of Water and Oil Film on the Floor by the Cable Raceway in RCIC Room 20015443 Recirc Pump Trip & Alternate Rod Injection Rx High Pressure Test 0281 Indicates Inst. Differential Pressure Exceeds Criteria
CR 20012179	Review Maintenance Rule Scoping for #10 transformer
CR 20015072	Annunciator Failure Trend Not Formally Dispositioned by Maintenance Rule Program
CR 20015525	Verify that the Maintenance Rule Program has Reviewed Annunciator Failure Trends for the Applicability to MR Covered ANN's
CR 20016185	Revise Basis Document to State that Buses 17 and 18 are within the Scope of the Maintenance Rule
CR 20000112	INPO SOER 990001 Loss of Grid

CR 20000809	NRC IN00-001 Operational Issues Identified in Boiling Water Reactor Trip
CR 20001924	MSC 00-001 JPG FN-03 Results and Observations from Gate Valve Tests Following Valve Disassembly and Reassembly
CR 20003231	INPO OE 011329 EDG Overspeed Trip
CR 20005032	NRC IN 2000-021 Detached Check Valve Disc Not Detected by use of Acoustic and Magnetic Nonintrusive Test Techniques
CR 20011301	INPO OE 011955 Time Delay Relays and General Purpose Relays Used in Low Energy Circuits (Agastat E-7000 Series Relays)
CR 20011985	NRC CFR 50 Industry Codes and Standards, Amended Requirements
CR 20011180	NRC CFR 022601 Draft RG (DG-1087) Evaluating the Habitability of a Nuclear Power Plant CR During Postulated Hazardous Chemical Release
CR 20010556	GE SIL 000079 Reassessment of SIL-79 and SIL-79 Supp #1, Relating to Operational Adjustments of SRM and Process Rad Monitors
CR 20013317	INPO OE 12354 Experienced Invalid High Water Level Group I Isolation Signal due to Water
CR 20001815	Consultants Comments on the Monticello Corrective Action Process Quality Control Quarterly Report - 2nd Quarter 2001
CR 20004381	Monticello SAC Corrective Action Subcommittee Rpt (10/17/00) Identified Areas for Improvement
CR 20004450	Corrective Action Process Self Assessment Evaluation - Year 2000"
CR 20011135	Radioactive Waste Characterization and Classification Team Performance Assessment
CR 20010975	RBV A WRGM Declared Inoperative due to a Possible Failure of the Sample Pump Diaphragm. Entered Unplanned TS 3.14.1 LCO.
CR 20010841	Entered Unplanned LCO for "B" RBV WRGM Upon Failure of the Low Range Timer during Test 0249-A

CR 20014690	Engineering Focused Self Assessment July 9-13, 2001 (Safety System Design, Performance Capability, and Compliance Attributes of RHR, RHRSW, EDGESW & EFTESW
CR 20010006	Monticello Nuclear Oversight 2nd Quarter Audit Reports 2001 Monticello Self Assessment Final Report "Identification and Resolution of Problems"
CR 20015317	Corrective Action Program Annual Self Assessment
CR 20014189	NRC Resident Questioned Adequacy of CAP Alternative Process Addressed in 4AWI-10.01.01 (4.1) to Meet Appendix B Requirements
CR 20010344	NIS-2 Forms Not Filled Out in Accordance with 1986 ASME Section XI Requirements for Snubber Replacement (LER 2001-02)
CR 20011481	Becthel Calculation used Incorrect Load Combination for the HELB Barrier Over Turbine Building Stairwell Number 1 (LER 2001-08)
CR 20010403	Unexpected Alarm During Execution of Surveillance 0385-A, Drywell Particulate Monitor Functional Test
CR 20010381	Trip of "A" Stack WRGM Not Identified as a Maintenance Rule Functional Failure (MRFF).
CR 20015277	Drawing Control Tech Service/Utility Engineering does Not Meet N1ACD-2.4
CR 20013383	RHRSW Failure of Adequate Investigation in Extent of Condition
CR 20014098	Receipt Inspection Discrepancies of PO PR7922SQ Material from Dubose for Project 99Q160
CR 20014512	No Procedure to Turn Off One RHR Pump after Torus Peak Temperature is Reached during a LOCA (Ref NEC SER 98 & Calc CA-97-157).
CR 20011082	Plant Shutdown Commenced due to HPCI and Both LPCI Injection Paths Inoperable. Unplanned LCO and 48-Hour Notification (LER 2001-07)

CR 20010801	Possible Failure to Report Conditions Associated with Current ISI Issues in Accordance with 10 CFR 50.72
CR 20012288	962' Elevation Maintenance Storage Area Fire Doors Prevent Smoke Travel
CR 20012592	Personnel Error during Condensate Demin Processing Results in Reduction in Condensate Flow and Power Reduction to 45%
CR 20010504	SRV Topworks Not Reviewed by ANII per Section XI Thereby Initiating Plant Shutdown per Tech Spec Requirements (LER 2001-02)
CR 20012154	"A" SBGT Failed TS Surveillance Associated with Charcoal Filter
CR 20010194	Deficient Procedures Fail to Require Independent Verification Following Return to Service of WO 01-06979 Repair No 15 24 Battery Charger Equal/Float Sw (CANCELLED)
CR 20011860	LER 2001-009 Check Valve Construction Error of Excess Flow Check Valve Not being Tested Properly
CR 20011575	FG 2001-002 Torque Wrench 058/062 Not Calibrated in 500/600 Inch-Pound Range
CR 20011482	HPCI-20 RCIC-14 Not Closed Function in IST Program
CR 20011440	FG 2001-001 - No Calibration Rotometer - HPCI/RCIC Check Valves
CR 20010904	CGCS Trickle Heater TS 4.7.E
CR 19983303	Failure of 24 Volt DC Charger D13 Requires Entry into Tech Spec 3.9.B and Issuance of 50.72(b)(1) One Hour Report
CR 20015540	AT-7731A has Intermittent High Temp Alarm when Room Temp is High. Replace P-125C with Larger Pump
CR 20003610	SLC Tank Not Recycled Monthly - Not Consistent with Tech Spec Requirements Evaluate the Need for a Detailed Investigation on Literal Tech Spec Compliance

CR 20015541	TC-7816B (RH-12 Recombiner Heater Temp Control) Setpoint Drifts. Replace Under Generic Mod
CR 20015301	Review Torus Water Temperature Data and Determine if a WO is Necessary
CR 20014760	Revise C.5-1200 (Primary Containment Control) to Reflect the New Torus Level LCO Values of 4.0(Min.) to 3.0(Max.)
CR 20010846	Past SBGT On-Line Maintenance Failed to Enter 36-Hour LCO When Doors were Opened for Access within Each Filter Unit
CR 20012139	Surv. Test 0471-02 is Out of Sequence with Companion Test 0465-01 Thru 0471-02. Reschedule Accordingly
CR 20012479	Write SRI to Justify Placing MO-2067 in Normally Open Position
CR 20013324	Continue to Investigate Root Cause of CRD Suction Pressure Transients on HPCI Start to Prevent Them
CR 20010504	SRV Topworks Changeout Not Reviewed by ANII Per Section XI
CR 20004721	Determine if the Goals in the Condition Reports have been Met. If Not, Consider Additional Actions
CR 20016526	Three Personnel Not Wearing Fall Protection
CR 20016529	Sulfur Determinator S/N 899 in Fuel Lab, was Past Due for Calibration and Not Labeled or Segregated
CR 20016530	Clarification Is Needed For Reporting 4-Hour Non-Emergency Events per 10CFR50.72 for Security Incidents On Site
CR 20016551	Weld Profile on Inside of Existing 18" RHRSW Intake Piping Requires Rework of the Existing Root Pass
CR 20016560	Workers Observed Standing On Heating System Piping in Intake Structure

CR 20016586	Unable to Establish Two-Way Communications with Wright & Sherburne Counties from EOF Radio Console per Surv. 1359
CR 20016788	Several FME Concerns Noted on Refuel Floor
CR 20016793	Semi-Trailer for Rad-Shipment #01-48 Exhibited Abnormal Tire Wear
CR 20016818	CA-94-017 Lacks Rigor in Assumptions and Calculation of Setpoints
CR 20016823	Incorrect Copper Tubing Received on Purchase Order PT5996CQ Line Item #1
CR 20016830	Work Control - Wrong RWP Revision was Identified at Work Area during a QA Audit
CR 20016842	Potential Failure to Report 3 LER's as SSFF's in the 2nd Qtr. NRC Performance Indicator Report
CR 20016846	Hold Card Position does Not Reflect the Nomenclature on MCC-143B, Brkr B4331, MO-4085B RHR Disch. Equalizing Valve
CR 20016847	Ladder Lying on the Floor in Front of C-206A, Condenser Conductivity Monitoring Panel in Turbine Building 931' Level
CR 20016848	Jumper/Bypasses Installed Despite Not Meeting Applicability Statement in Section 2.1 of 4AWI-04.04.03
CR 20016849	Insufficient Application of Work Controls Challenges Breaker/Fuse Coordination of 125 VDC System
CR 20016852	Worker Not Wearing Hearing Protection in Intake Structure
CR 20016853	Refuel Floor FME Not in Accordance with 4AWI-04.05.09
CR 20016863	Intumastic 285 Received did Not Meet Shelf Life Requirements as Stated in Purchase Order PT6475FQ
CR 20016896	Non Utilized Conduit Port on LT-2-3-112B Not Sealed as Specified in Manual NX-20483, Possible EQ Consideration

CR 20016897	Adverse Trend - Too Many Unplanned LCOs In 2001
CR 20016933	Appendix R Fire Door 39 would Not Self-Close due to Interference from Adjacent I&C Cabinet
CR 20016950	Door-413 (TB931 Stairway) and Door-125 (Cable Spreading Rm) are Appendix R Doors but are Not Labeled as Such
CR 20016970	Sketch No. 3 For Jumper Bypass No. 01-08 is Incorrect in that it Should Show the Wiring Change Entirely Within C-225
CR 20016975	Ops Manual B.04.02-05.C. Power Supply List Note 2 was Not Updated to Reflect Wiring Changes Under Jumper Bypass 01-08
Work Orders	
WO 0107735	RCIC-31 Perform Disassembly and Inspection Procedure 0255-08-IA-5. Make Repairs if Required
WO 0000652	Test B4334 and B4330 Contactor Dropout during ECCS
WO 0000557	Determine Pickup & Dropout Voltage for B4334
WO 0000520	Determine Pickup & Dropout Voltage for B4335
WO 0000519	Determine Pickup & Dropout Voltage for B4330
WO 0000518	Determine Pickup & Dropout Voltage for B3335
WO 0107819	CV-2104 Perform Diagnostic Testing on CV-2104
WO 0003277	Air Leak on SV-1756, AO14-13B Actuator Solenoid Valve
WO 0106952	Check Air Set to CV-1996
WO 0107290	PI-13-59 Replace PI-13-59 RCIC Pump Discharge Pressure Indicator. Exhibited Hysteresis Effects during Routine Calibration
WO 0107287	RCI Overspeed Lights do Not Come On When Overspeed is Tripped Until Linkage is Checked for Binding

WO 0107286	MO-2080 HO-7 had Dual Indication when Valve was Closed. Open Limit Switch was Lightly Tapped and Open Indication Extinguished. Normal Valve Indication
WO 0001552	MO-2110 Perform 4900-1PM Parts E and F. Perform 4901-3PM. Replace or Repair Components as Necessary. Contact System Engineer Prior to Replacing
WO 0105937	PS-7322 Unexpected High Vacuum Alarms have Occurred during Several Past RCIC Test Runs. Need to Verify that Vacuum System is Working Properly on RCIC
WO 9907654	S-200 Replace EGR. Sluggish Operation of System
WO 9907673	S-200 Test RCIC Turbine Response after Maintenance Work
WO 0107742	AO-13-22 Perform Disassembly and Inspection Procedure 0255-08-IA-7
WO 0004303	Governor Control Dropping Resister
WO 9907616	S-200 Investigate, Determine Cause and Correct Slow Response of RCIC Turbine Flow Control. 9907939 FI-13-91 Investigate RCIC Flow Indicator
WO 0107825	RM-7859A Investigate/Repair Grab Sample Timer on RBV WRGM Ch "A" Low Range Timer
WO 0108321	CR 20010139 CRD 06-23 Moves Slowly in Insert Direction
WO 0109231	RM-7858A the STACK WRGM Channel "A" Sample Flow was Found Slightly High
WO 0106858	RI-7859A Repair Light on Effluent Level Pushbutton
WO 0108583	RM-7859A Repair/Replace Faulty Timer. During Test when Step Called for Timer to be Actuated it would Not Respond, Further Attempts also Failed
WO 0001376	RM-7859A The RBV WRGM Process Flow Readings for the "A" and "B" Channels are out of Tolerance (>1.2) and need to be Calibrated

WO 0002072	RM-7859A Light Bulb is Inop. Please Replace with Operable One				
WO 0002086	RM-7859A Check the Calibration of the RBV WRGM Channel "A" High Range Sample Flow Transducer				
WO 0001649	RM-7859A Calibrate the RBV WRGM Channel "A" Process and Sample Flow via Procedure 363-1				
WO 9907510	RM-7859B Investigate/Repair Cause of Low Process and Average Readings				
WO 9907519	RM-7859A Investigate/Repair Cause of High Process and Average Readings				
WO 0107729	Investigate Annunciator 4-A-4 Alarms				
WO 9907527	RM-7859A Investigate the Mismatched Process Flow Between the "A" and "B" RBV WRGMs.				
WO 0000831	RM-17-352 Investigate and Repair				
WO 0000873	RM-17-350 Investigate/Repair/Replace out of Tolerance Condition Found Under PMT for WO 0000800				
WO 0105858	RM-7859A Filter Paper has Decreased Levels of Contamination which may Indicate an Increase in Air In-Leakage or a Deteriorating Pump Diaphragm				
WO 0105881	RM-7859A the RBV Channel "A" WRGM Sample Flow does Not Decrease to Zero upon Throttling of the Suction Line and Ultrasonic Testing Confirms no Leaks				
WO 0105937	Pressure during RCIC Start				
WO 9907669	HO-8/RCIC Binding of Servo Linkage Noted during WO 9907658 Testing				
WO 9907653	HO-8/RCIC Troubleshoot RCIC Governor Valve, Servo and Linkage "Hot" following RCIC Run				
WO 0003157	RM-7859A Investigate Cause of Non-Zero Grab Sample Timer and Repair/Replace as Required				
WO 00-01943	24V Battery Charger D13 Power Light Blinking				
WO 99-08035	Power Indicating Light on D-14 Charger is Out				

WO 00-01943	24V Battery	Charger D1	13 Power	Light E	Blinking

- WO 00-02411 Investigate Cause of Blinking Light
- WO 01-07329 Power Indicating Light on D-14 Charger is Out