January 24, 2006

Mr. J. Conway 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 INTEGRATED INSPECTION REPORT 05000263/2005005

Dear Mr. Conway:

On December 31, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Monticello Nuclear Generating Plant. The enclosed integrated inspection report documents the inspection findings which were discussed on January 5, 2006, with you and other members of your staff.

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

Based on the results of this inspection, one licensee identified violation is listed in Section 4OA7 of this report.

J. Conway

In accordance with 10 CFR 2.390 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/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely,

#### /RA/

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

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

- Enclosure: Inspection Report 05000263/2005005 w/Attachment: Supplemental Information
- cc w/encl: M. Sellman, Chief Executive Officer and Chief Nuclear Officer Manager, Regulatory Affairs J. Rogoff, Vice President, Counsel, and Secretary Nuclear Asset Manager, Xcel Energy, Inc. Commissioner, Minnesota Department of Health 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 Manager - Environmental Protection Division Minnesota Attorney General's Office

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# U.S. NUCLEAR REGULATORY COMMISSION

# **REGION III**

Docket No:	50-263
License No:	DPR-22
Report No:	05000263/2005005
Licensee:	Nuclear Management Company, LLC
Facility:	Monticello Nuclear Generating Plant (MNGP)
Location:	Monticello, Minnesota
Dates:	October 1 through December 31, 2005
Inspectors:	<ul> <li>S. Ray, Senior Resident Inspector</li> <li>R. Orlikowski, Resident Inspector</li> <li>R. Baker, Resident Inspector, Duane Arnold</li> <li>R. Jickling, Emergency Preparedness Analyst</li> <li>M. Jordan, Consultant</li> <li>R. Langstaff, Senior Reactor Inspector</li> <li>C. Thomas, Senior Resident Inspector, Davis-Besse</li> <li>M. Mitchell, Radiation Specialist</li> </ul>
Observers:	None
Approved by:	B. Burgess, Chief Branch 2 Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000263/2005005; 10/01/2005 - 12/31/2005; Monticello Nuclear Generating Plant. Routine Integrated Report.

This report covers a 3-month period of baseline resident inspection and announced baseline inspections of radiation protection and emergency preparedness. The inspections were conducted by Region III reactor inspectors and the resident inspectors. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

#### A. NRC-Identified and Self-Revealed Findings

No findings of significance were identified.

## B. Licensee-Identified Violations

A violation of very low safety significance, which was identified by the licensee, has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. The violation and corrective action tracking numbers are listed in Section 40A7 of this report.

#### **REPORT DETAILS**

#### Summary of Plant Status

Monticello operated at full power for the entire assessment period except for brief down-power maneuvers to accomplish rod pattern adjustments and to conduct planned surveillance testing activities.

#### 1. REACTOR SAFETY

Cornerstone: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

#### 1R01 Adverse Weather (71111.01)

a. Inspection Scope

The inspectors performed a detailed review of the licensee's procedures and a walkdown of two systems to observe the licensee's preparations for adverse weather, including conditions that could result from low temperatures and freezing. The inspectors focused on plant specific design features for the systems and implementation of the procedures for responding to or mitigating the effects of adverse weather. Inspection activities included, but were not limited to, a review of the licensee's adverse weather procedures, preparations for the winter season, and a review of analysis and requirements identified in the Updated Safety Analysis Report (USAR). The inspectors also verified that operator actions specified by plant specific procedures were appropriate.

The inspectors evaluated readiness for seasonal susceptibilities for the following systems for a total of two samples:

- condensate storage tanks; and
- residual heat removal service water (RHRSW).
- b. Findings

No findings of significance were identified.

#### 1R04 Equipment Alignment (71111.04)

Partial Walkdown

a. Inspection Scope

The inspectors performed partial walkdowns of accessible portions of trains of risk-significant mitigating systems equipment. The inspectors reviewed equipment alignment to identify any discrepancies that could impact the function of the system and potentially increase risk. Identified equipment alignment problems were verified by the inspectors to be properly resolved. The inspectors selected redundant or backup

systems for inspection during times when equipment was of increased importance due to unavailability of the redundant train or other related equipment. Inspection activities included, but were not limited to, a review of the licensee's procedures, verification of equipment alignment, and an observation of material condition, including operating parameters of equipment in-service.

The inspectors selected the following equipment trains to assess operability and proper equipment line-up for a total of five samples:

- B train of alternate nitrogen system with the A train of alternate nitrogen out-of-service for maintenance;
- Division I of residual heat removal (RHR) with Division II out-of-service for maintenance;
- Division II of RHR in preparation for Division I being taken out-of-service for maintenance;
- high pressure core injection (HPCI) after being out-of-service for planned maintenance; and
- Division II of core spray (CS) in preparation for Division I being taken out-of-service for maintenance.
- b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

Quarterly Fire Zone Walkdowns (71111.05Q)

a. Inspection Scope

The inspectors walked down risk significant fire areas to assess fire protection requirements. The inspectors reviewed areas to assess if the licensee had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, maintained passive fire protection features in good material condition, and had implemented adequate compensatory measures for out-of-service, degraded or inoperable fire protection equipment, systems or features. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events (IPEEE), or the potential to impact equipment which could initiate or mitigate a plant transient. The inspection activities included, but were not limited to, the control of transient combustibles and ignition sources, fire detection equipment, manual suppression capabilities, passive suppression capabilities, automatic suppression capabilities, compensatory measures, and barriers to fire propagation.

The inspectors selected the following areas for review for a total of eight samples:

- fire zone 23-A, intake structure pump room;
- fire zone 20, auxiliary boiler room;

- fire zone 1-E, HPCI room;
- fire zone 15-A, 12 emergency diesel generator (EDG) room;
- fire zone 12-A, division 1 4kV bus room;
- fire zone 13-B, reactor feedwater pump and lube oil reservoir area;
- fire zone 14-A, division II 4kV bus room; and
- fire zone 15-B, 11 EDG and day tank rooms.

#### b. Findings

No findings of significance were identified.

#### 1R07 <u>Heat Sink Performance</u> (71111.07)

a. Inspection Scope

The inspectors evaluated the licensee's execution of biofouling controls for the service water system and the circulating water system. As part of this inspection, the inspectors performed a walkdown of the chemical injection systems and discussed their operation with a licensee chemistry manager. Additionally, the inspectors discussed the purpose of each chemical used for biofouling controls in the service water system and circulation water system, as well as the effectiveness of each chemical, with a licensee chemistry manager.

This constitutes one sample.

b. Findings

No findings of significance were identified.

#### 1R11 Licensed Operator Regualification Program (71111.11)

#### a. Inspection Scope

The inspectors performed a quarterly review of licensed operator requalification training. The inspection assessed the licensee's effectiveness in evaluating the requalification program, ensuring that licensed individuals operate the facility safely and within the conditions of their license, and evaluated licensed operator mastery of high risk operator actions. The inspection activities included, but were not limited to, a review of high risk activities, emergency plan performance, incorporation of lessons learned, clarity and formality of communications, task prioritization, timeliness of actions, alarm response actions, control board operations, procedural adequacy and implementation, supervisory oversight, group dynamics, interpretations of Technical Specifications (TS), simulator fidelity, and licensee critique of performance.

The inspectors observed the following requalification activity for a total of one sample:

• a training crew during an evaluated simulator scenario that included intake icing, a control room air intake radiation monitor problem, a feedwater rupture, a spurious Group 1 isolation, and a safety relief valve tailpipe failure. Entry into the

Enclosure

emergency operating procedures, classification and notification of the event to the NRC were part of the scenario.

b. Findings

No findings of significance were identified.

1R12 <u>Maintenance Effectiveness</u> (71111.12)

#### Routine Maintenance Effectiveness Inspection

a. <u>Inspection Scope</u>

The inspectors reviewed systems to assess maintenance effectiveness, including maintenance rule activities, work practices, and common cause issues. Inspection activities included, but were not limited to, the licensee's categorization of specific issues including evaluation of performance criteria, appropriate work practices, identification of common cause errors, extent of condition, and trending of key parameters. Additionally, the inspectors reviewed implementation of the Maintenance Rule (10 CFR 50.65) requirements, including a review of scoping, goal-setting, performance monitoring, short-term and long-term corrective actions, functional failure determinations associated with reviewed corrective action program (CAP) documents, and current equipment performance status.

The inspectors performed the following maintenance effectiveness reviews for a total of two samples:

- C a function-oriented review of the RHRSW system because it was designated as risk significant under the Maintenance Rule; and
- a function-oriented review of the reactor core isolation cooling (RCIC) system was performed, because it was designated as risk-significant under the Maintenance Rule.
- b. Findings

No findings of significance were identified.

## 1R13 <u>Maintenance Risk Assessments and Emergent Work Control</u> (71111.13)

a. Inspection Scope

The inspectors reviewed maintenance activities to review risk assessments (RAs) and emergent work control. The inspectors verified the performance and adequacy of RAs, management of resultant risk, entry into the appropriate licensee-established risk bands, and the effective planning and control of emergent work activities. The inspection activities included, but were not limited to, a verification that licensee RA procedures were followed and performed appropriately for routine and emergent maintenance, that RAs for the scope of work performed were accurate and complete, that necessary actions were taken to minimize the probability of initiating events, and that activities to ensure that the functionality of mitigating systems and barriers were performed. Reviews also assessed the licensee's evaluation of plant risk, risk management, scheduling, configuration control, and coordination with other scheduled risk significant work for these activities. Additionally, the assessment included an evaluation of external factors, the licensee's control of work activities, and appropriate consideration of baseline and cumulative risk.

The inspectors observed maintenance or planning for the following activities or risk significant systems undergoing scheduled or emergent maintenance for a total of three samples:

- emergency repairs on 12 EDG governor and fuel oil leak;
- unplanned maintenance on the Sherco offsite power line; and
- planned repairs to the 13 EDG with simultaneous fire protection work in the 12 EDG room and potential degradation of the D70 battery charger.

#### b. Findings

No findings of significance were identified.

#### 1R14 Operator Performance During Non-Routine Plant Evolutions and Events (71111.14)

a. Inspection Scope

The inspectors reviewed personnel performance to planned and unplanned non-routine evolutions to review operator performance and the potential for operator contribution to the evolution, transient, or event. The inspectors observed or reviewed records of operator performance during the evolution. Reviews included, but were not limited to, operator logs, pre-job briefings, instrument recorder data, and procedures.

The inspectors observed the following evolutions for a total of four samples:

- planned maintenance using a freeze seal isolation to replace fire protection deluge valve FP-48-2;
- unplanned trip of switchyard breaker 8N12 during maintenance on breaker 8N11;
- planned power reduction for rod pattern adjustment and subsequent power increase; and
- unrecognized limiting condition of operation (LCO) actions associated with emergency filtration train (EFT) logic.

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

No findings of significance were identified.

## 1R15 Operability Evaluations (71111.15)

#### a. Inspection Scope

The inspectors reviewed operability evaluations which affected mitigating systems or barrier integrity to ensure that operability was properly justified and that the component or system remained available. The inspection activities included, but were not limited to, a review of the technical adequacy of the operability evaluations to determine the impact on TS, the significance of the evaluations to ensure that adequate justifications were documented, and that risk was appropriately assessed.

The inspectors reviewed the following operability evaluations for a total of four samples:

- OBD000137, GE (General Electric) Part 21 Notice (SC05-03) Potential to exceed low pressure TS safety limit;
- OBD000140, LPCI (low pressure coolant injection) loop selection logic may not meet USAR break size detection requirement;
- CAP01006793, cracks found on SW-19 yoke during isolation activity; and
- CAP01007137, unexpected alarm during HPCI isolation activities.
- b. Findings

No findings of significance were identified.

- 1R16 Operator Workarounds (71111.16)
- a. Inspection Scope

The inspectors performed a semiannual review of the cumulative effects of operator workarounds (OWAs). The inspectors reviewed OWAs to identify any potential effect on the functionality of mitigating systems. The inspection activities included, but were not limited to, a review of the cumulative effects of the OWAs on the availability and the potential for improper operation of the system, for potential impacts on multiple systems, and on the ability of operators to respond to plant transients or accidents. Additionally, reviews were conducted to determine if the workarounds could increase the possibility of an initiating event, if the workaround was contrary to training, required a change from long standing operational practices, created the potential for inappropriate compensatory actions, impaired access to equipment, or required equipment uses for which the equipment was not designed.

The inspectors focused the inspection on the HPCI system and the licensee's list of documented workarounds.

This constituted one sample.

b. Findings

No findings of significance were identified.

## 1R19 Post-Maintenance Testing (71111.19)

#### a. Inspection Scope

The inspectors verified that the post-maintenance test procedures and activities were adequate to ensure system operability and functional capability. Activities were selected based upon the structure, system, or component's (SSC) ability to impact risk. The inspection activities included, but were not limited to, witnessing or reviewing the integration of testing activities, applicability of acceptance criteria, test equipment calibration and control, procedural use and compliance, control of temporary modifications or jumpers required for test performance, documentation of test data, system restoration, and evaluation of test data. Also, the inspectors verified that maintenance and post-maintenance testing activities adequately ensured that the equipment met the licensing basis, TS, and USAR design requirements.

The inspectors selected the following post-maintenance activities for review for a total of six samples:

- testing of the 12 EDG following emergent work on the governor and fuel oil leak;
- testing of RCIC following planned replacement of valve RCIC-47 and other work;
- operability testing of the 12 CS pump following motor supply breaker rack-out to megger test the motor and other preventive maintenance;
- post-maintenance test for PM 7302 , "[control room ventilation] CRV-EFT instrument calibration;"
- operability testing of the 11 CS pump following motor supply breaker rack-out to megger test the motor and other preventive maintenance; and
- post-replacement testing of the control rod movement control switch.

#### b. Findings

No findings of significance were identified.

#### 1R22 <u>Surveillance Testing</u> (71111.22)

#### a. Inspection Scope

The inspectors reviewed surveillance testing activities to assess operational readiness and to ensure that risk-significant SSCs were capable of performing their intended safety function. Activities were selected based upon risk significance and the potential risk impact from an unidentified deficiency or performance degradation that a SSC could impose on the unit if the condition was left unresolved. The inspection activities included, but were not limited to, a review for preconditioning, integration of testing activities, applicability of acceptance criteria, test equipment calibration and control, procedural use, control of temporary modifications or jumpers required for test performance, documentation of test data, TS applicability, impact of testing relative to performance indicator (PI) reporting, and evaluation of test data. The inspectors selected the following surveillance testing activities for review for a total of four samples:

- average power range monitor (APRM) recirculation flow instrumentation calibration;
- turbine control valve fast closure scram test and calibration (>30 percent of rated power);
- 11 EDG testing due to emergent inoperability of the 12 EDG; and
- emergency core cooling system (ECCS) valve permissive sensor.
- b. Findings

No findings of significance were identified.

- 1R23 <u>Temporary Plant Modifications</u> (71111.23)
- a. Inspection Scope

The inspectors reviewed temporary modifications to assess the impact of the modification on the safety function of the associated system. The inspection activities included, but were not limited to, a review of design documents, safety screening documents, USAR, and applicable TS to determine that the temporary modification was consistent with modification documents, drawings and procedures. The inspectors also reviewed the post-installation test results to confirm that tests were satisfactory and the actual impact of the temporary modification on the permanent system and interfacing systems were adequately verified.

The inspectors selected the following temporary modifications for review for a total of two samples:

- 05-020, MO-2374 closed torque switch jumper bypass; and
- 05-023, strongback for SW-19.
- b. Findings

No findings of significance were identified.

#### 1EP4 <u>Emergency Action Level and Emergency Plan Changes</u> (71114.04)

a. Inspection Scope

The inspectors performed a screening review of Revision 26 of the Monticello Nuclear Generating Plant Emergency Plan to determine whether the changes made in Revision 26 decreased the effectiveness of the licensee's emergency planning. This screening review of Revision 26 did not constitute an approval of the changes and, as such, the changes are subject to future NRC inspection to ensure that the emergency plan continues to meet NRC regulations.

These activities completed one inspection sample.

#### b. Findings

No findings of significance were identified.

#### 1EP6 Drill Evaluation (71114.06)

#### a. Inspection Scope

The inspectors selected emergency preparedness exercises that the licensee had scheduled as providing input to the Drill/Exercise Performance Indicator. The inspection activities included, but were not limited to, the classification of events, notifications to off-site agencies, protective action recommendation development, and drill critiques. Observations were compared with the licensee's observations and CAP entries. The inspectors verified that there were no discrepancies between observed performance and PI reported statistics.

The inspectors selected the following emergency preparedness activity for review for a total of one sample:

- the resident inspectors observed a licensee site-wide training drill from the simulator and near-site Emergency Operations Facility. Since the licensee used new draft emergency classification guidelines, the opportunities were not counted for the NRC Performance Indicators.
- 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 <u>Review of Licensee Performance Indicators for the Occupational Exposure Cornerstone</u>
- a. <u>Inspection Scope</u>

The inspectors reviewed the licensee's occupational exposure control cornerstone PIs to determine whether or not the conditions surrounding the PIs had been evaluated, and identified problems had been entered into the corrective action program for resolution. This review represented one sample.

b. <u>Findings</u>

No findings of significance were identified.

## .2 Plant Walkdowns and Radiation Work Permit Reviews

#### a. Inspection Scope

The inspectors reviewed the licensee's physical and programmatic controls for highly activated and/or contaminated materials (non-fuel) stored within spent fuel or other storage pools. This review represented one sample.

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

No findings of significance were identified.

#### .3 <u>Problem Identification and Resolution</u>

a. <u>Inspection Scope</u>

The inspectors reviewed licensee documentation packages for all PI events occurring since the last inspection to determine if any of these PI events involved dose rates >25 R/hr at 30 centimeters or >500 R/hr at 1 meter. Barriers were evaluated for failure and to determine if there were any barriers left to prevent personnel access. Unintended exposures >100 millirem total effective dose equivalent (or >5 rem shallow dose equivalent or >1.5 rem lens dose equivalent) were evaluated to determine if there were any regulatory overexposures or if there was a substantial potential for an overexposure. This review represented one sample.

b. Findings

No findings of significance were identified.

- 2OS2 As Low As Is Reasonably Achievable Planning And Controls (ALARA) (71121.02)
- .1 Inspection Planning
- a. Inspection Scope

The inspectors reviewed the outage work completed during the inspection period and associated work activity exposure estimates and actual doses for the following four outage work activities which were likely to result in the highest personnel collective exposures:

- drywell valve work;
- drywell 11-recirculation motor/pump;
- drywell support work;
- drywell in-service inspection; and
- reactor disassembly and reassembly.

This review represented one sample.

## b. Findings

No findings of significance were identified.

#### .2 Radiological Work Planning

#### a. Inspection Scope

The inspectors compared the results achieved including dose rate reductions and person-rem used with the intended dose established in the licensee's ALARA planning for the five work activities in Section 2OS2.1. Reasons for inconsistencies between intended and actual work activity doses were reviewed. This review represented one sample.

b. Findings

No findings of significance were identified.

- 2PS3 <u>Radiological Environmental Monitoring Program (REMP) And Radioactive Material</u> <u>Control Program</u> (71122.03)
- .1 Inspection Planning
- a. Inspection Scope

The inspectors reviewed the most current Annual Environmental Monitoring Report and licensee assessment results to verify that the REMP was implemented as required by TS and the off-site dose calculation manual (ODCM). The inspectors reviewed the report for changes to the ODCM with respect to environmental monitoring, commitments in terms of sampling locations, monitoring and measurement frequencies, land use census, interlaboratory comparison program, and analysis of data. The inspectors reviewed the ODCM to identify environmental monitoring stations and reviewed licensee self-assessments, audits, licensee event reports (LERs), and interlaboratory comparison program results. The inspectors reviewed the final safety analysis report (FSAR) for information regarding the environmental monitoring program and meteorological monitoring instrumentation. The inspectors reviewed the scope of the licensee's audit program to verify that it met the requirements of 10 CFR 20.1101(c). This review represented one sample.

b. Findings

No findings of significance were identified.

- .2 <u>Onsite Inspection</u>
- a. Inspection Scope

The inspectors walked-down 30 percent of the air sampling stations and approximately 10 percent of the thermoluminescence dosimeter (TLD) monitoring stations to determine

whether they are located as described in the ODCM and to determine the equipment material condition. This review represented one sample.

The inspectors observed the collection and preparation of a variety of environmental samples (e.g., ground and surface water, milk, vegetation, sediment, and soil) and verified that environmental sampling is representative of the release pathways as specified in the ODCM and that sampling techniques are in accordance with procedures. This review represented one sample.

The inspectors verified that the meteorological instruments were operable, calibrated, and maintained in accordance with guidance contained in the FSAR, NRC Safety Guide 23, and licensee procedures. The inspectors verified that the meteorological data readout and recording instruments in the control room and at the tower were operable. The inspectors compared readout data (i.e., wind speed, wind direction, and delta temperature) in the control room and at the meteorological tower to identify if there were any line loss differences. This review represented one sample.

The inspectors reviewed each event documented in the Annual Environmental Monitoring Report which involved a missed sample, inoperable sampler, lost TLD, or anomalous measurement for the cause and corrective actions and conducted a review of the licensee's assessment of any positive sample results (i.e., licensed radioactive material detected above the lower limits of detection (LLDs). The inspectors reviewed the associated radioactive effluent release data that was the likely source of the released material. This review represented one sample.

The inspectors reviewed significant changes made by the licensee to the ODCM as the result of changes to the land census or sampler station modifications since the last inspection. The inspectors reviewed technical justifications for changed sampling locations. The inspectors verified that the licensee performed the reviews required to ensure that the changes did not affect its ability to monitor the impacts of radioactive effluent releases on the environment. This review represented one sample.

The inspectors reviewed the calibration and maintenance records for five air samplers and composite water samplers. The inspectors reviewed calibration records for the environmental sample radiation measurement instrumentation (i.e., count room). The inspectors verified that the appropriate detection sensitivities with respect to TS/ODCM were utilized for counting samples (i.e., the samples meet the TS/ODCM required LLDs). The inspectors reviewed quality control charts for maintaining radiation measurement instrument status and actions taken for degrading detector performance.

The inspectors reviewed the results of the REMP sample vendor's quality control program including the interlaboratory comparison program to verify the adequacy of the vendor's program and the corrective actions for any identified deficiencies. The inspectors reviewed audits and technical evaluations the licensee performed on the vendor's program. The inspectors reviewed quality assessment audit results of the program to determine whether the licensee met the TS/ODCM requirements. This review represented one sample.

## b. Findings

No findings of significance were identified.

## .3 Unrestricted Release of Material from the Radiologically Controlled Area (RCA)

#### a. Inspection Scope

The inspectors observed several locations where the licensee monitors potentially contaminated material leaving the RCA and inspected the methods used for control, survey, and release from these areas. The inspectors observed the performance of personnel surveying and releasing material for unrestricted use to verify that the work was performed in accordance with plant procedures. This review represented one sample.

The inspectors verified that the radiation monitoring instrumentation was appropriate for the radiation types present and was calibrated with appropriate radiation sources. The inspectors reviewed the licensee's criteria for the survey and release of potentially contaminated material and verified that there was guidance on how to respond to an alarm, which indicates the presence of licensed radioactive material. The inspectors reviewed the licensee's equipment to ensure the radiation detection sensitivities were consistent with the NRC guidance contained in IE Circular 81-07 and IE Information Notice 85-92 for surface contamination and HPPOS-221 for volumetrically contaminated material. The inspectors verified that the licensee performed radiation surveys to detect radionuclides that decay via electron capture. The inspectors reviewed the licensee's procedures and records to verify that the radiation detection instrumentation was used at its typical sensitivity level based on appropriate counting parameters (i.e., counting times and background radiation levels). The inspectors verified that the licensee had not established a "release limit" by altering the instrument's typical sensitivity through such methods as raising the energy discriminator level or locating the instrument in a high radiation background area. This review represented one sample.

b. Findings

No findings of significance were identified.

## .4 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed the licensee's self-assessments, audits, LERs, and special reports related to the radiological environmental monitoring program since the last inspection to determine if identified problems were entered into the CAP for resolution. The inspectors also verified that the licensee's self-assessment program was capable of identifying repetitive deficiencies or significant individual deficiencies in problem identification and resolution.

The inspectors also reviewed corrective action reports from the radioactive effluent treatment and monitoring program since the previous inspection, interviewed staff and

reviewed documents to determine if the following activities were being conducted in an effective and timely manner commensurate with their importance to safety and risk:

- initial problem identification, characterization, and tracking;
- disposition of operability/reportability issues;
- evaluation of safety significance/risk and priority for resolution;
- identification of repetitive problems;
- identification of contributing causes;
- identification and implementation of effective corrective actions;
- resolution of Non-Cited Violations (NCVs) tracked in the corrective action system; and
- implementation/consideration of risk significant operational experience feedback.

This review represented one sample.

b. Findings

No findings of significance were identified.

- 4. OTHER ACTIVITIES
- 4OA1 Performance Indicator Verification (71151)
- .1 Radiation Safety Strategic Area
- a. Inspection Scope

The inspectors reviewed the licensee submittals for two Pls. The inspectors used PI guidance and definitions contained in Nuclear Energy Institute (NEI) Document 99-02, Revision 3, "Regulatory Assessment Performance Indicator Guideline," to verify the accuracy of the PI data. As part of the inspection, the documents listed in Appendix 1 were utilized to evaluate the accuracy of PI data. The inspectors' review included, but was not limited to, conditions and data from logs, LERs, CAP documents, and calculations for each PI specified.

The following PIs were reviewed:

- Occupational Exposure Control Effectiveness, for the period of November 2004 through October 2005; and
- RETS/ODCM Radiological Effluent Occurrence, for the period of November 2004 through October 2005.

This review represented two samples.

b. Findings

No findings of significance were identified.

## 4OA2 Identification and Resolution of Problems (71152)

Cornerstone: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

- .1 Routine Review of Identification and Resolution of Problems
- a. Inspection Scope

As part of the routine inspections documented above, the inspectors verified that the licensee entered the problems identified during the inspection into their CAP. Additionally, the inspectors verified that the licensee was identifying issues at an appropriate threshold and entering them in the CAP, and verified that problems included in the licensee's CAP were properly addressed for resolution. Attributes reviewed included: complete and accurate identification of the problem; that timeliness was commensurate with the safety significance; that evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition reviews, and previous occurrence reviews were proper and adequate; and that the classification, prioritization and focus were commensurate with safety and sufficient to prevent recurrence of the issue. These reviews did not constitute additional inspection samples.

b. Findings

No findings of significance were identified.

- .2 Daily Corrective Action Program Reviews
- a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished by reviewing daily CAP summary reports and attending corrective action review board meetings. These reviews did not constitute additional inspection samples.

b. Findings

No findings of significance were identified.

- .3 <u>Semi-Annual Trend Review</u>
- a. Inspection Scope

The inspectors performed a review of the licensee's CAP and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' reviews were focused on plant instrumentation issues and work planning issues, but also considered the results of daily inspector CAP item screening discussed in Section 4OA2.2 of this report, licensee trending efforts, and licensee human

performance results. The inspectors' reviews nominally considered the period of July 2005 through December 2005, although some examples expanded beyond those dates when the scope of the trend warranted.

Inspectors reviewed adverse trend CAP items associated with various issues that occurred during the period. The review also included issues documented outside the normal CAP in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self assessment reports, and maintenance rule assessments. The specific items reviewed are listed in the Attachment to this report. The inspectors compared and contrasted their results with the results contained in the licensee's CAP trending documents. Corrective actions associated with a sample of the issues identified in the licensee's trend report were reviewed for adequacy.

The inspectors also evaluated the licensee's CAP documents against the requirements of the licensee's corrective action process as specified in 4 AWI-10.01.03, "Action Request Process (FP-PA-ARP-01)." Additional documents reviewed are listed in the Attachment to this report.

This semi-annual trend review did not constitute an additional inspection sample. Instead, by procedure, it was considered part of the inspectors' daily plant status monitoring activities.

b. Findings

No findings of significance were identified.

.4 <u>Selected Issue Follow-up (Annual Sample)</u>: High Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) Pump Suction Pressure Switches Found Outside As-Found Acceptance Criteria

## Introduction

The HPCI and RCIC systems both have suction pressure switches that will trip their respective turbine on low suction pressure to prevent damage to the pump due to cavitation. The HPCI and RCIC pump suction pressure switches are identical in make and model and both experienced setpoint drift during the first scheduled routine calibration after the switches had been newly installed in their respective systems. The inspectors decided to perform a more detailed review of the HPCI and RCIC suction pressure switches setpoint drift.

a. Inspection Scope

On August 8, 2005, while performing a calibration of the RCIC pump suction pressure switch, PS-13-67A, the switch was found outside of the as-found acceptance criteria. The instrumentation and controls (I&C) technician performing the calibration initiated CAP040249 to document the issue. On December 12, 2005, while performing a calibration of the HPCI pump suction pressure switch, PS-23-84A, this switch was also found outside of the as-found acceptance criteria. The I&C technician performing the

calibration initiated CAP01007193. The inspectors recognized that both the RCIC and HPCI pump suction pressure switches were identical in make and model and decided to perform a more detailed review of these occurrences of pressure switch drift. Previous CAPs, work orders (WOs), and modifications pertaining to the HPCI and RCIC suction pressure switches were reviewed to ensure that the licensee's corrective actions were commensurate with the significance of identified issues. The inspectors reviewed CAPs and WOs looking for any previous history of repeat pressure switch issues, pressure switch drift, or switch calibration issues related to the HPCI system.

#### b. Issues

The inspectors reviewed previous CAPs that had been written due to difficulty in calibrating the HPCI and RCIC pump suction pressure switches to within the required as-left calibration band required by procedure. Due to the difficulty in calibrating the switches, engineering personnel implemented a modification to replace the HPCI and RCIC pump suction pressure switches with new switches that had a tighter calibration tolerance. Both the HPCI and RCIC pump suction pressure switches were replaced under modification 00Q235B during the 2005 refueling outage.

While calibrating the RCIC pump suction pressure switch in August 2005, the switch was found outside of the as-found acceptance criteria. Since no cause was found for the switch drift, the calibration frequency of the switch was increased. As part of the extent of condition review, the calibration frequency for the HPCI pump suction pressure switch was also increased and a WO was written to calibrate the HPCI pump suction pressure switch during the next 13 week maintenance schedule. During the calibration of the HPCI pump suction pressure switch, this switch was also found outside of the as-found acceptance criteria. CAP01007193 was written to track the corrective actions for this issue and the corrective actions associated with this CAP were still open with a due date of June 12, 2006.

No findings of significance were identified.

## 4OA3 Event Follow-up (71153)

# (Closed) Licensee Event Report 50-263/2005-006-00: Unrecognized Plant Configuration Change

On October 18, 2005, during an extent of condition review for a previously identified issue related to a planned EFT maintenance WO, the licensee identified that on October 3 and October 10, 2005, they had exceeded the TS action statement 24 hour limit allowed with the Division I CS and RHR pumps inoperable at the same time. The Division I CS and RHR pumps were inoperable due to an unrecognized plant configuration change when the auto-start feature of the 13 emergency service water (ESW) pump, which supplies cooling water to the ECCS room cooler and Division I CS and RHR pumps, was isolated for maintenance.

The licensee evaluated these instances to be of very low safety significance because the risk impact incurred by defeating the automatic start circuitry for the 13 ESW pump was of low significance (less than 1.0 E-06/yr difference in core damage frequency) and

the Division II CS and RHR pumps were still operable. The licensee attributed the root cause of the event to management and supervision not providing the necessary oversight of complex activities and work management processes to ensure expectations were clear and that appropriate resources were applied. Also, the licensee determined that the roles and responsibilities of personnel involved in the isolation preparation/approval, work impact, and WO approval processes were unclear. Corrective actions included communicating management expectations for development of isolations by operational personnel, assigning a senior reactor operator as the Work Control Manager to enhance the isolation development and approval process, implementing a requirement that only operations personnel are authorized to prepare isolations, and implementing a requirement in the tagging program to review the isolations during preparation. The licensee entered this issue into their corrective action program as CAP01001324.

A licensee-identified violation related to this issue is discussed in Section 4OA7.

- 40A5 Other Activities
- .1 (Closed) Temporary Instruction (TI) 2515/161: Transportation of Reactor Control Rod Drives in Type A Packages
- a. Inspection Scope

The inspectors conducted interviews and record reviews to verify that: (1) the licensee had undergone refueling activities since calender year 2002; and, (2) did not ship irradiated control rod drive mechanisms in DOT Specification 7A, Type A packages.

b. Findings

No findings of significance were identified.

.2 (Closed) Unresolved Item (URI) 05000263/2003006-01): Intermingling of NUMARC-007 Guidance in the Unusual Event Emergency Action Level for an On-Site Fire, Revisions 22 through 24 of the Emergency Plan, and Adequacy of the Interpretation of NUREG 0654 Guidance of this Emergency Action Level in Revisions 20 and 21

In Inspection Report (IR) 05000263/2003006, inspectors identified that the Unusual Event for a fire in Revisions 22 through 24 of the Monticello Emergency Plan was revised using NUMARC-007 guidance.

Title 10 CFR 50.47(b)(4) states, in part, that a standardized emergency classification and action level scheme is in use by the nuclear facility licensee. Regulatory Guide 1.101, Revision 3, indicates that licensees may use either NUREG 0654/FEMA-REP-1 or NUMARC/NESP-007 in developing their Emergency Action Level (EAL) schemes but may not use portions of both methodologies. However, Regulatory Guide 1.101, Revision 4, dated July 2003, further indicates that licensees who continue to use EALs based upon NUREG-0654 could benefit from the technical basis for EALs provided in NUMARC-007. The inspectors determined, in this case, the EAL change in Revisions 22 through 26 (current emergency plan revision) was an improvement in the Unusual Event EAL, which enhanced safety by providing clearer conditions for more consistent event classification. The revision of this EAL did not change the licensee's classification scheme and it remained internally consistent.

The licensee revised an EAL without submitting to the NRC for prior approval or providing an adequate 10 CFR 50.54(q) review, potentially impacting the NRC's ability to perform its regulatory function and possible traditional enforcement. However, in this case, the change to the Unusual Event EAL for a fire did not decrease the effectiveness of the emergency plans by using the NUMARC-007 technical basis as indicated in Regulatory Guide 1.101, Revision 4.

This finding constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC's Enforcement Policy. The licensee has initiated Condition Report 03013347 and submitted a request for approval of an NRC endorsed NEI 99-01 classification scheme.

This is not an inspection sample.

## 40A6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to Mr. Conway and other members of licensee management on January 5, 2006. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

#### .2 Interim Exit Meetings

Interim exit meetings were conducted for:

- Radiological Environmental Monitoring Program inspection with Mr. R. Jacobs, Site Director, on November 18, 2005; and
- Emergency Preparedness inspection with Mr. G. Holthaus, by telephone call, on December 20, 2005.

#### 40A7 Licensee-Identified Violations

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

#### Cornerstone: Mitigating Systems

This finding relates to LER 05000263/2005-006-00, discussed in Section 4OA3 of this report. Technical Specification 3.5.A.4 requires that if the requirements or conditions of

Technical Specification Section 3.5.A.1, 2, or 3 cannot be met for core and containment spray cooling systems, an orderly shutdown of the reactor shall be initiated and the reactor shall be placed in a condition in which the affected equipment is not required to be operable within 24 hours. Contrary to this requirement, the licensee opened a breaker during maintenance, which resulted in a loss of the auto-start feature of the 13 ESW pump. This pump was required to support the operability of the ECCS room cooler and required for the operability of the Division I CS pump and RHR pumps. The TS 24 hour action statement time limit was exceeded on October 3, 2005, when the breaker was open for 32 hours and again on October 10, 2005, when the breaker was open for 28 hours.

The finding was identified by the licensee on October 18, 2005, during an extent of condition review for an issue identified during a review of a planned EFT maintenance WO. Since the finding was not a design or qualification issue, did not represent a loss of system safety function, did not represent an actual loss of safety function of a single train, and was not due to a seismic, flooding, or severe weather initiating event, the finding was determined to be of very low safety significance (Green). The licensee entered this into their corrective action program as CAP01001324.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## SUPPLEMENTAL INFORMATION

## **KEY POINTS OF CONTACT**

#### Licensee

- J. Conway, Site Vice President
- R. Jacobs, Site Director for Operations
- B. Sawatzke, Plant Manager
- R. Baumer, Licensing
- G. Holthaus, Emergency Preparedness Coordinator
- K. Jepsen, Radiation Protection Manager
- J. Fields, Regulatory Affairs Manager (Acting)

<u>Nuclear Regulatory Commission</u> B. Burgess, Chief, Reactor Projects Branch 2

## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Opened</u>

None.

<u>Closed</u>

05000263/2005-006-00	LER	Unrecognized Plant Configuration Change (Sections 4OA3 and 4OA7)
05000263/200306-01	URI	Intermingling of NUMARC-007 Guidance in the Revised Unusual Event EAL for an On-Site Fire, as Found in Revisions 22 Through 24 of the Plan, and the Uncertain Adequacy of the Interpretation of NUREG 0654 Guidance in the Version of this EAL in Revisions 20 and 21 of the Plan (Section 40A5.2)
2515/161	TI	Transportation of Reactor Control Rod Drives in Type A Packages (Section 40A5.1)
Discussed		

None.

## LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection reports.

## Section 1R01: Adverse Weather

Documents and Procedures:

1151; Winter Checklist; Revision 48

Operations Manual B.08.09-05, Section 4; Placing Condensate Storage Tank Heat Exchanger (E-24) In-Service; Revision 14

Annunciator Response Procedure C.6-006-B-13; Condensate Storage Tanks Low Suction Temp; Revision 1

Drawing NH-36039; Condensate and Demineralized Water Storage Systems; Revision BU

## Section 1R04: Equipment Alignment

Documents and Procedures:

0255-17-IA-8A; Alternate Nitrogen System Cold Shutdown Valve Test; Revision 5 2154-45; Alternate Nitrogen System Prestart Valve Checklist; Revision 6 2154-12; RHR System Prestart Valve Checklist; Revision 41 Drawing NH-36247; RHR System; Revision BR 2154-10; HPCI System Prestart Valve Checklist; Revision 27 2154-35; HPCI Hydraulic Control and Lubrication System Prestart Valve Checklist; Revision 8 2154-11; CS System Prestart Valve Checklist; Revision 18 2119; Plant Prestart Checklist CS System; Revision 8 Drawing NH-36248; CS System; Revision AM

## Section 1R05: Fire Protection

Pre-Fire Fighting Procedures and Strategies: Strategy A.3-20; Auxiliary Boiler Room; Revision 11 Strategy A.3-23-A; Intake Structure Pump Room; Revision 8 Strategy A.3-01-E; HPCI Room, Reactor Building Elevation 896 Feet; Revision 6 Strategy A.3-15-A; No. 12 DG Room; Revision 7 Strategy A.3-12-A; Lower 4 kV Bus Area; Revision 10 Strategy A.3-13-B; Reactor Feedpump and Lube Oil Reservoir Room; Revision 9 Strategy A.3-14-A; Upper 4kV Bus Area; Revision 10 Strategy A.3-15-B; No. 11 DG Room and Day Tank Rooms; Revision 9

Corrective Action Program Documents:

CAP01007682; Housekeeping Below Grating on 911 Foot Elevation of Turbine Building May Be Flooding Issue (NRC Identified)

## Section 1R07: Heat Sink Performance

Documents and Procedures:

Drawing NH-36665; Service Water System and Make-Up Intake Structure; Revision CJ Drawing NH-36665, Sheet 2; Service Water System and Make-Up Intake Structure; Revision J Drawing NH-36665, Sheet 3; Biocide Injection System; Revision E Drawing NH-36666; Screen Wash, Fire and Chlorination System Intake Structure; Revision AW

## Section 1R11: Licensed Operator Requalification Program

## Documents and Procedures:

Simulator Exercise Guide RQ-SS-52-E; Intake Icing/Control Room Air Intake Radiation Monitor Inoperable/Feedwater Pump Rupture/Group 1 Isolation - Safety Relief Valve Tailpipe Break; Revision 0

## Section 1R12: Maintenance Effectiveness

Documents and Procedures:

RHRSW Maintenance Rule Database Entries from October 1, 2003 through October 17, 2005 Monticello Nuclear Generating Plant (MNGP) Station Log Entries Pertaining to the RHRSW System Between the Period of October 1, 2003 to October 17, 2005

Monticello Maintenance Rule Periodic Assessment Report 10 CFR 50.65(a)(3); June 2003 through May 2004

Monticello Maintenance Rule Periodic Update for February 2005; March 3, 2005 Monticello Maintenance Rule Program System Basis Document; RCIC System; October 23, 1997

Engineering Work Instruction-05.02.01; Monticello Maintenance Rule Program Document; Revision 7

NMC Fleet Procedure CD 5.22; Maintenance Rule Program Standard; Revision 0 Maintenance Rule Statue Board (Showing Systems in a(1) or a(2) Status); September 2, 2005 Maintenance Rule Database Entries for RCIC for Unavailability and Maintenance Preventable Functional Failure Data for October 1, 2003 through November 14, 2005 0255-08-III-1; RCIC Comprehensive Pump and Valve Test; Revision 4

## Corrective Action Program Documents:

CAP040663; SW-21-1 and SW-22-1 Check Valve Leakage Exceeds Inservice Testing Criteria CAP040971; No Column Gaskets Found on RHRSW Pump Columns

CAP040983; Baseplate Opening Is Too Small to Allow Installation of Rebuilt No. 12 RHRSW Pump

CAP041031; 50 Percent of LCO Will Be Exceeded at 1800 Hours on 9/29/05 for No. 12 RHRSW Pump

CAP01003425; RCIC Test Halted Due to Pump Inboard Bearing Oil Level Low

CAP01003327; Low Bearing Filler Oil Level Following RCIC Surveillance Test

CAP00774047; RCIC Pump Inboard Bearing Oil Level Discovered Low During 0255-08-III-1, RCIC Comprehensive Pump and Valve Test

CE011375; RCIC Pump Inboard Bearing Oil Level Discovered Low During 0255-08-III-1, RCIC Comprehensive Pump and Valve Test

CAP023119; RCIC Pump Inboard Bearing Oil Level Discovered Low During 0255-08-III-1, RCIC Comprehensive Pump and Valve Test

CAP035684; RCIC Pump Inboard Bearing Oil Level Discovered Low During 0255-08-III-1, RCIC Comprehensive Pump and Valve Test

CAP038972; Anomalous Behavior of RCIC System During 04/16/05 Surveillance Not Captured in CAP

CAP00774071; RCIC Pump Oil Sample Request Cannot Be Obtained CE011620; RCIC Pump Oil Sample Request Cannot Be Obtained CAP00874848; During RCIC Quarterly Run, Flow Perturbations Were Observed on FI-13-91 CE012875; During RCIC Quarterly Run, Flow Perturbations Were Observed on FI-13-91 CAP035691; RCIC Pump Outboard Bearing Vertical Vibration Exceeds Acceptance Criteria CE011376; RCIC Pump Outboard Bearing Vertical Vibration Exceeds Acceptance Criteria CAP038969; Entered Unplanned LCO for RCIC During Performance of 0255-08-IA-1 MRE000121; Entered Unplanned LCO for RCIC During Performance of 0255-08-IA-1 ACE004345; Entered Unplanned LCO for RCIC During Performance of 0255-08-IA-1

Work Orders:

WO0505674; Clean/Replace Solenoid Valve SV-4937C to Correct Slow Closing Time WO0507942; Solenoid Valve SV-4937A Leaks By WO0508532; Tighten RCIC Oil Piping on Inboard Bearing Oiler WO0507940; Replace RCIC Flow Indicator FIC-13-91

## Section 1R13: Maintenance Risk Assessments and Emergent Work Control

## Documents and Procedures:

MNGP Status Report; December 19, 2005 Work Week Schedule; Work Week 6103; December 18 - December 24, 2005 Monticello Station Log; December 6, 2005

## Corrective Action Program Documents:

CAP01001776; Speed Control Failed to Respond on 12 EDG, Test 0187-02 CAP01001783; Fuel Oil Leak From 12 EDG Requires Emergency Shutdown CAP01001785; 12 EDG Fuel Oil Leak Increases to Unacceptable Level CAP01001816; Sensing Line for High Fuel Oil Pressure for 12 EDG Has a Broken Bracket CAP01001898; Outlet of Fuel Oil Strainer Slightly Bent CAP01004931; Isolation for Sherco Substation Work Changes Plant Risk Color CAP01006560; Unexpected Ground Alarm Received During D-80 PM C-20-B-09

Work Orders:

WO0508397; Investigate and Repair Governor Speed Adjustment WO0508398; Pipe Nipple Broke Off in Engine Driven Pump WO0508400; Sensing Line for PS-7205 Has Broken Bracket WO0508401; Damaged Fitting on Fuel Pump Suction Line WO0200585; PM 4525 (D70 250 Volt Direct Current Chargers)

## Section 1R14: Personnel Performance During Non-Routine Plant Evolutions and Events

Documents and Procedures:

Operations Manual C.2-05; Power Operation; Revision 26 CAP01001324; Unrecognized LCO Actions Associated with EFT Logic CAP01001106; 14 ESW Would Not Auto Start Following a Loss of Normal Offsite Power with EFT Isolated Monticello Station Logs for October 3 and 10, 2005 NE-93519-2; ESW Pump P-111C, Division 1 Electrical Schematic; Revision E NE-93519-3; ESW Pump R-111D Electrical Schematic; Revision G NE 93577; Single Line Diagram of 480 Volt Motor Control Center (MCC) B44; Revision E NE-93576; Single Line Diagram of 480 Volt MCC B34; Revision H

<u>Corrective Action Program Documents</u>: CAP01004156; 8N12 Breaker Tripped During 8N11 Condition Assessment

Work Orders:

WO0507383; Replacement of FP-48-2 and FP-48

## Section 1R15: Operability Evaluations

Documents and Procedures:

GE 10 CFR Part 21 Communication SC05-03; Potential to Exceed Low Pressure TS Safety Limit

Engineering Memo; Justification for Extension of Due Date of OBD000137

Corrective Action Program Documents:

OPR000103; GE Part 21 Notice (SC05-03) - Potential to Exceed Low Pressure TS Safety Limit OBD000137; GE Part 21 Notice (SC05-03) - Potential to Exceed Low Pressure TS Safety Limit OBD000140; LPCI Loop Selection Logic May Not Meet USAR Break Size Detection Requirement

CAP033391; LPCI Loop Selection Logic May Not Meet USAR Break Size Detection Requirement

CAP038338; GE Part 21 Notice (SC05-03) - Potential to Exceed Low Pressure TS Safety Limit CAP01006793; Cracks Found on SW-19 During Isolation Activity

CAP01007137; Unexpected Alarm During HPCI Isolation Activities.

Drawings:

NH-36664; RHRSW and ESW Systems; Revision BR

NH-36665; Service Water System and Make-up Intake Structure; Revision CJ

## Section 1R16: Operator Workarounds

Documents and Procedures:

B.03.02-01; Operations Manual Section HPCI, Section G.2, Manual Switchover of HPCI Suction from Condensate Storage Tanks to the Torus; Revision 27 Probabilistic Risk Assessment Review of Operator Workarounds; dated December 6, 2005 Monticello Operational Challenges List, Acceptable As-Is Report; dated December 6, 2005 Monticello Operational Challenges List; dated December 1, 2005 WO9802309, Investigate HPCI Discharge Line Response WO9801825, Investigate HPCI Discharge Line Response HPCI Discharge Line Steam Void Checks; dated December 8, 2005 Thermography of HPCI Valve MO-2068; dated March 4, 1998 Drawings and Prints

M129; Unit 1 Reactor Water Clean-up Filter/Demineralizer System P&ID; Revision AE M141; Radwaste Solids Handing System Piping and Instrumentation Diagram; Revision AD

## Section 1R19: Post-Maintenance Testing

Documents and Procedures:

0187-02B; 12 EDG/12 ESW Monthly Pump and Valve Tests; Revision 3 0255-08-III-1; RCIC Comprehensive Pump and Valve Tests; Revision 4 (with expedited revision dated November 7, 2005)

0255-03-IA-1-2; CS Loop B Quarterly Pump and Valve Tests; Revision 43 (with temporary revision dated November 16, 2005)

0255-03-IIC-2; CS System Leakage Test-Loop B; Revision 1 (with temporary revision dated November 16, 2005)

1203-02; Systems Leakage Check Procedure B CS System; Revision 9

1429; CRV-EFT Low Flow Test; Revision 10

4210-01-PM; 11 CS Pump and Motor Inspection; Revision 10

4211-01-PM; CS Pump Motor 11; Revision 8

0255-03-IA-1-1; CS Loop A Quarterly Pump and Valve Tests; Revision 45

0255-03-IIC-1; CS System Leakage Test-Loop A; Revision 1

Corrective Action Program Documents:

CAP01001918; 12 EDG Engine Driven Pump Appeared to be Air Bound CAP01001924; 12 EDG Shutdown Due to No Discharge Pressure on Fuel Pump CAP01001931; 12 EDG Load Sensitivity Increased Following Governor Maintenance CAP01006752; Jumper Landed on Wrong Terminal During PMT Test 1429

Work Orders:

WO0508397; Investigate and Repair Governor Speed Adjustment

WO0508398; Pipe Nipple Broke Off in Engine Driven Pump

WO0508400; Sensing Line for PS-7205 Has Broken Bracket

WO0508401; Damaged Fitting on Fuel Pump Suction Line

WO0403836; Replace RCIC-47

WO0506141; Meggar CS Pump Motor P-208B

WO0507939; Replace Control Rod Movement Control Switch 3A-S2 as Part of Preventive Maintenance Program

# Section 1R22: Surveillance Testing

Documents and Procedures:

0026; APRM-Recirculation Flow Instrumentation Calibration; Revision 33

0011-A; Turbine Control Valve Fast Closure Scram Test and Calibration (>30 Percent of Rated Power); Revision 6

0187-01B; 11 Emergency Diesel Generator/11 ESW/DOL [Diesel Oil] Transfer Monthly Tests; Revision 3

0034; ECCS Valve Permissive Sensor; Revision 20

## Section 1R23: Temporary Plant Modifications

Documents and Procedures:

Temporary Modification 05-020; MO-2374 Closed Torque Switch Jumper Bypass Temporary Modification 05-023; Strongback for SW-19 Screening Number SCR-05-0680; MO-2374 Closed Torque Switch Jumper Bypass; Revision 0 Screening Number SCR-05–0801; Install Strongback on SW-19; Revision 0 Forced Outage Guidance Memo; October 31, 2005 Drawing NX-7823-4-9; Primary Containment Isolation System; Revision M

Corrective Action Program Documents:

CAP040410; MO-2374, Main Steam Line Drain Outboard Isolation, Shows Dual Indication When Tested in Closed Direction CAP01006793; Cracks Found on SW-19 Yoke During Isolation Activity CAP01007308; Handwheel for SW-19 Removed for T-Mod Contained Hold Card (NRC Identified)

Work Orders: WO0508763; Install Strongback on SW-19

# Section 1EP4: Emergency Action Level and Emergency Plan Changes

MNGP Emergency Plan; Revisions 25 and 26

## Section 1EP6: Drill Evaluation

<u>Documents and Procedures:</u> MNGP Emergency Plan Drill; November 30,2005

## Corrective Action Program Documents:

CAP1006180; Incorrect Classification Made During November 30 Training Drill CAP1006200; Shift Emergency Communicator Made Changes to Notification Form After Shift Manager Approval CAP1006218; Emergency Response Organization Personnel Ignored Take Cover Public Address Announcement During Emergency Preparedness Drill

Section 20S1: Access Control to Radiologically Significant Areas Spent Fuel Pool Inventory Database

Section 2OS2: As Low As Is Reasonably Achievable Planning And Controls (ALARA) 2005 Refueling Outage ALARA Report 2005-001-5-028; Nuclear Oversight Observation Report 2005 Refueling Outage - Radiation Protection

# Section 2PS3: Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program

CAP032890; RPGP 02.09 (REMP Procedure) Non-compliance SA 021387; Chemistry Self-Assessment of REMP Activities MNGP 5829; REMP Air Sampler Calibration; Revision 5 MNGP 1.05.33; Weekly Radiological Environmental Monitoring Procedures; Revision 2

Attachment

MNGP R.06.02; Unconditional Release of Equipment or Material; Revision 17 MNGP ODCM; MNGP Offsite Dose Calculation Manual; dated July 25, 2005 2004 Radioactive Effluent Release Report; dated May 9, 2005 2004 Annual Radiological Environmental Operating Report; dated April 29, 2005 Meteorological Tower Equipment Availability Database 2004-002-5-008; Nuclear Oversight Observation Report Environmental Monitoring Final Report to Xcel Energy Corporation Radiological Environmental Monitoring Program; dated

## Section 4OA2: Identification and Resolution of Problems

CAP 01006963; During Calibration, Switch Tripped Outside of As-Found Spec CAP040820; FT-2943 Local Indication is Blank. Loss of Power.

CAP01002045; Degraded Insulation at Resistor Junction of 5A-K24B

CAP040828; TI-7982 Out of As-Found at Upper Range of Scale, i.e. >450 degrees Fahrenheit CAP040750; Unresolved Questions Require Removal of SLC TS-11-50, TS-11-59 Work from Schedule

CAP040365; Work Start Delayed was Noted Due to Lack of Preparation

CAP040477; WO Was Moved from One Work Week to the Next Without Resolving Problem CAP040469; WO0506731 Pulled from T-1 Schedule Due to Temporary Modification not Being Prepared for Work

CAP040437; Inadequate Procedure and Bench Setting Guidance Causes Reactor Water Cleanup Work Delay WO0404242

CAP040788; WO 0504590 "Find if Waste Collector Filter Losing Water" Pulled From Schedule CAP041008; WO0310909 Removed From 5404 Work Week Due to Insufficient Detail on Potential Impact

CAP040735; T-1 Schedule Consistently Not Meeting Expectations

## Section 4OA3: Event Follow-up

Documents and Procedures:

January 26, 2005

LER 2005-006-00; Unrecognized Plant Configuration Change

Corrective Action Program Documents:

CAP035742; Insufficient Operator Instructions Relaying Need to Initiate RHR/CS Room Cooling CAP010260; RHR Room Cooling Calculation Assumptions are Inconsistent with Current Plant Operation

# LIST OF ACRONYMS USED

ALARA	As Low As Is Reasonably Achievable
APRM	Average Power Range Monitor
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CRV	Control Room Ventilation
CS	Core Spray
DOT	Department of Transportation
DRP	Division of Reactor Projects
FAI	Emergency Action Level
FCCS	Emergency Core Cooling System
FDG	Emergency Diesel Generator
FFT	Emergency Eiltration Train
ESW	Emergency Service Water
ESAR	Final Safety Analysis Report
GE	General Electric
HPCI	High Pressure Core Injection
1&C	Instrumentation and Controls
IMC	Inspection Manual Chapter
IPEEE	Individual Plant Examination of External Events
IR	Inspection Report
k\/	Kilovolt
	Limiting Condition of Operation
LOO	Licensee Event Report
	Lower Limits of Detection
	Low Pressure Coolant Injection
MCC	Motor Control Center
MNCD	Monticello Nuclear Cenerating Plant
NCV	Non-Cited Violation
NEI	Nuclear Energy Institute
	Nuclear Management Company
	U.S. Nuclear Regulatory Commission
	Offsite Dose Calculation Manual
	Onorator Workaround
	Publicly Available Decords
DI	Publicity Available Records
	Risk Assessifient
	Radiologically Controlled Area
	Redulor Core isolation Cooling Rediclogical Environmental Menitering Program
	Radiological Environmental Technical Specifications/Officite Dess Calculation
RE15/ODCIVI	Manual
RHR	Residual Heat Removal
RHRSW	Residual Heat Removal Service Water
SDP	Significance Determination Process
SSC	Structures, Systems, and Components
TI	Temporary Instruction
TLD	Thermoluminescence Dosimeter

# LIST OF ACRONYMS USED

- ΤS
- URI
- Technical Specification Unresolved Item Updated Safety Analysis Report Work Order USAR
- WO