U.S. NUCLEAR REGULATORY COMMISSION

REGION III

REPORT NO. 50-263/96002

FACILITY
Monticello Nuclear Station
License No. DPR-22

LICENSEE
Northern States Power Company
414 Nicollet Mall
Minneapolis, MN 55401

DATES
January 17 through February 26, 1996

INSPECTORS
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APPROVED BY

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4/8/96
Date

AREAS INSPECTED

A routine, unannounced inspection of operations, engineering, maintenance, and plant support was performed. Routine, announced inspections of the emergency preparedness and radiological controls programs were also conducted. Temporary Instruction 2515/131, "Licensee Offsite Communications Capabilities," was closed.

RESULTS

OPERATIONS personnel continued to perform well during several infrequent evolutions. Operators involvement in the #12 recirculation motor generator brush changeout briefings was excellent. The shift supervisors conducted excellent prejob and periodic status briefings for the operators. Operations personnel response to weather-related events was prompt. However, the inspectors noted that some **OPERATOR** turnovers did not meet **OPERATIONS** management's expectations (section 1.6).

MAINTENANCE personnel performed well during this period. No events resulting from personnel error were identified. Repair of the #11 residual heat removal service water pump and motor progressed well. However, two examples of weak work control were identified (Sections 2.1.1 and 4.2.1).

ENGINEERING personnel provided strong support to other departments specifically during the emergency service water pump differential pressure problem and emergency core cooling water special tests. The inspectors identified some observations regarding emergency lighting batteries. These included vendor information not used, illumination demands not considered, and maintenance activities not documented (section 3.1).

Management support to the **EMERGENCY PREPAREDNESS** program was evident (section 4.3). Response facilities and equipment were in an excellent state of operational readiness. Audits and surveillances of the program satisfied the requirements of 10 CFR Part 50.54(t). Interviews with key emergency response personnel indicated a very good understanding of emergency responsibilities and procedures.

Weaknesses involving electronic dosimetry usage were identified by the **RADIATION PROTECTION** personnel (section 4.1.1).

A **SECURITY** officer identified a breached security barrier (section 4.2.1). The barrier was overlooked during maintenance activity on a residual heat removal service water pump; however, prompt actions corrected the oversight.

No problems were identified in the area of **SAFETY ASSESSMENT AND QUALITY VERIFICATION.**

Summary of Open Items

Inspection Follow-up Items: Three identified in paragraphs 2.2, 3.3, and 5.0. Unresolved Item: One identified in paragraph 4.2.1. Non-cited violation: One identified in paragraph 4.1.1.

INSPECTION DETAILS

1.0 OPERATIONS

NRC Inspection Procedure 71707 was used in the performance of an inspection of ongoing plant operations. The unit operated near full power for most of the period except that power was briefly reduced on February 11 to replace a brush on a recirculation pump motor generator. The unit also entered a gradual coastdown period on January 23 toward a refueling outage scheduled for April 10, 1996.

Accessible portions of the following systems were inspected by the inspectors:

Combustible Gas Control System
Reactor Core Isolation Cooling (RCIC)
Core Spray (CS)
High Pressure Coolant Injection (water injection side only) (HPCI)

Equipment operability, material condition, and housekeeping were acceptable in most cases. Some minor discrepancies such as a broken seal wire on the residual heat removal suction from the condensate storage tank valve and minor packing leaks were brought to the licensee's attention and were corrected. The inspectors identified no operability concerns as a result of these walkdowns. A discrepancy between system description information and in-plant configuration is discussed in section 1.2.

1.1 Excellent Communication and Control During Infrequent Evolutions

The inspectors observed several activities classified as infrequent evolutions by the licensee. Prior to the start of these activities, the operations management and engineering personnel held briefings to discuss individual roles and responsibilities, expected equipment performance, potential effect on system parameters, and expected results. The inspectors observed several of the briefings and concluded that all relevant information was properly communicated to the individuals involved. These included:

- Emergency core cooling systems (ECCS) suction strainer testing,
- On-line replacement of the #12 recirculation pump motor generator (MG) set brush, and
- RCIC special test associated with the speed control replacement.

The inspectors noted that the briefing associated with the replacement of the MG set brush was excellent. Operators reduced recirculation pump speed for electrical maintenance personnel safety. During the briefing, some individuals suggested reducing speed further to minimize operator

actions in the event the pump tripped during the activity. The operators were concerned about introducing more problems in anticipation of recovering from a pump trip. These problems included a potential hydrogen water chemistry trip if the #11 reactor feed water pump recirculation valve opened and a concern regarding recirculation pump vibrations or oscillations if the speed was decreased further. Operations and maintenance personnel agreed to perform the maintenance without further changes to pump speed. This candid discussion was a strength. The brush replacement was conducted without a problem.

1.2 Discrepancy Between System Description and Actual Configuration of the Reactor Core Isolation Cooling (RCIC) System

During a system walkdown, the inspectors noted that a manually operated valve, RCIC-62, was closed which isolated the vacuum breaker solenoid operated valve from the steam exhaust pipe. The licensee had placed a Hold and Secure Card (H&SC), 94-80648, on the valve in October 1994 as an administrative control to isolate the vacuum breaker. The inspectors noted that the function of the solenoid valve was not discussed in Updated Safety Analysis Report (USAR) Chapter 10.2.5. However, as described in Operations Manual Section B.2.3-02, the solenoid valve was installed to prevent air from being drawn into the steam piping after system shutdown.

The inspectors discussed the status of the H&SC card with the control room shift supervisor and system engineers. Additionally, the inspectors reviewed the closed safety review item 94-020 which documented management's approval to isolate the HPCI and RCIC steam exhaust line vacuum breakers, HPCI-60 and SV-4283, respectively. Based on discussions with the vendor, the licensee had determined that other check valve vacuum breakers were sufficient to provide a means to break vacuum in the steam exhaust line. The licensee did not identify any unreviewed safety questions and concluded that the isolation of the solenoid valve did not violate technical specification requirements, NRC regulations, or regulatory guides. The licensee planned to revise the piping and instrumentation drawings found in the USAR for both HPCI and RCIC during the next USAR revision submittal. Additionally, after discussion with the inspectors, the system engineer planned to revise the Operations Manual to better describe the current system configuration with RCIC-62 closed. The inspectors had no further concerns.

1.3 Nuisance Alarm Caused Entry Into Emergency Procedures During Routine Surveillance

On January 23, 1996 during a routine surveillance, the speed control sensor for the RCIC system failed. The failed model was manufactured in 1967 and was original plant equipment. The licensee noted that the replacement model was manufactured in 1983 and had a capacitor installed. The system engineer performed an evaluation and determined the replacement was acceptable. Engineering personnel developed a

special test to verify proper operation of the governor upon completion of maintenance.

During this special test and routine operability surveillances, the RCIC area radiation monitor exceeded the maximum normal operating value and alarmed. The inspectors noted that this alarm required entry into the emergency operating procedures for secondary containment control. The shift supervisor acknowledged that this was an expected alarm and entry was not warranted. The inspectors were concerned that this alarm could cause misleading information during accident conditions. The operators stated that a computer point change had been requested but had not yet been implemented. The implementation of the computer point change will adequately address the concern of misleading information. The inspectors had no further concerns.

1.4 Good Performance During Weather Related Equipment Problems

The inspectors noted that operations personnel responded promptly to weather related equipment problems. For example, an equipment operator identified some frozen instruments in the intake structure building during routine rounds. Instrumentation and control technicians subsequently replaced or recalibrated seven instruments. Also, on one occasion, the river water level was low due to icing. The licensee realigned the discharge canal into recirculation which caused the discharge canal water temperature to increase to 81°F. Operators closely monitored temperatures and ensured operation within the permitted limits. Other cold weather related problems included nuisance alarms for the 1R transformer oil level and freezing potential in the radwaste building.

1.5 Frequent Shutdowns of the Hydrogen Water Chemistry System Created Additional Work for Operators

The inspectors noted that the operators manually isolated the off-gas stack on January 26, February 3, February 6, and February 11 due to hydrogen water chemistry problems. The inspectors discussed this issue with the system engineer to verify that actions were in process to correct the condition. The system was designed to reduce dissolved oxygen levels in the reactor water by injecting hydrogen into the feedwater system. Excess hydrogen was drawn off through the offgas system where oxygen was added upstream of the offgas recombiners. An oxygen concentration controller located downstream of the recombiner monitored hydrogen and oxygen concentrations to ensure explosive levels were not reached and to maintain a stoichiometric relationship between the two gases. The licensee determined that a 3-5 minute time delay existed between hydrogen injection point and when the gas was analyzed.

During reactor power decreases, the hydrogen concentration decreased; however, due to the process time delay, the oxygen injection rate remained at the 100% power level which was higher than the current requirements. This momentary "spike" of oxygen often resulted in a trip of the system and required the operators to manually isolate the offgas

stack. The system engineer was working to resolve the frequent isolations. The licensee was tracking this problem.

1.6 Conduct of Shift Turnovers Was Good Although Some Were Inconsistent

The inspectors observed several operator shift-change turnovers to assess operators' knowledge of current plant conditions including equipment operability status and communication of on-going activities. The turnovers were generally good; however, the inspectors noted some inconsistencies. For example, during one turnover, the off-going shift operator conducted a detailed control room panel walkdown with the on-coming shift operator; however, during another turnover, two other operators did not perform a walkdown together. In addition, the inspectors noted that the operators discussed conditions related to the ventilation panel; however, this panel was not included in the observed walkdowns. The inspectors discussed these observations with the operations management who indicated that the turnovers did not meet established expectations. The licensee is addressing this issue.

2.0 MAINTENANCE

NRC Inspection Procedures 62703 and 61726 were used to perform an inspection of maintenance and testing activities.

2.1 Performance of Maintenance and Surveillance Testing Activities During the Inspection Period Was Good

The inspectors observed or reviewed the following routine preventative and corrective maintenance and surveillance activities. The inspectors verified approved procedures, regulatory guides, industry codes or standards, and Technical Specifications limitations were followed. These activities included:

0255-06-IA-1	HPCI System Tests With Reactor Pressure at Rated Conditions
0253-1/2	Standby Gas Treatment A/B Train Testing
0257/0256/1140	Fire Detection Instrumentation Test
0062	RCIC High Area Temperature Test
0051/0052	Main Steam Line High Flow Group I Isolation Instrument Test and Calibration Procedure.
8706	ECCS Suction Strainer Test
WO 9501582	11 residual heat removal service water (RHRSW) pump/motor maintenance work
WO 96000	replacement of a #12 Recirc MG set brush
WO 9600226	RCIC turbine speed controller replacement

In nearly all cases, the work was performed well. The technicians and maintenance personnel followed procedures and established appropriate communication with operations personnel. Specific observations made during these activities are provided below.

2.1.1 RHRSW Pump Maintenance Execution Was Good; However Two Examples of Weak Work Control Were Identified

On January 29, 1996, the inspectors observed portions of #11 RHRSW pump and motor maintenance work. The inspectors noted that maintenance personnel were adequately trained and qualified for the work. The support and interface between engineering, operations and maintenance personnel was good and team work was evident. The work package contained descriptions for quality control inspections, limiting conditions for operation considerations, security involvement, and for post maintenance testing. Most of the work activities were well planned with the exception of adequate cold weather precautions and security involvement.

The inspectors were concerned that the potential for freezing was not addressed in the work instructions and pre-job briefings. No precautions were taken to protect instrumentation from freezing when maintenance personnel removed sections of the intake structure roof to facilitate removal of the motor and pump. Unanticipated difficulties and delays caused the equipment to be exposed to the outside temperatures longer than expected. An operator, performing routine rounds, observed that some of the instruments in the room were reading past full scale and were frozen. The instrumentation and control technicians subsequently replaced or recalibrated seven instruments. The inspectors noted that no technical specification or safety related instruments were affected; however, the potential for the instruments to freeze during the removal of the pump was not discussed in the pre-job briefings. This was considered an example of weak work controls.

Another example of weak work controls involved a security barrier and is discussed in section 4.2.1.

2.1.2 Good Performance During ECCS Suction Strainer Test

On February 9, 1996, the inspectors observed portions of the ECCS suction strainer test. The purposed of the test was to demonstrate the cleanliness of the suppression pool/torus ring header. The licensee committed to perform this test in response to NRC Bulletin 95-02, "Unexpected Clogging of a RHR Pump Strainer While Operating in Suppression Pool Cooling Mode." The inspectors observed the briefing conducted by engineering and operations personnel. The briefing was thorough and addressed areas of potential concern.

The test consisted of operating the four residual heat removal pumps for six hours aligned with suction from the torus. The licensee monitored pump suction pressure, torus level and temperature, and pump flow. No abnormalities occurred and the licensee concluded that adequate cleanliness of the suppression chamber was demonstrated. The test was conducted in a controlled manner with good communication between engineering and operations personnel.

2.2 Discrepancy Between USAR Description and Conduct of Surveillances

The inspectors reviewed the USAR and determined that instrument surveillances were not performed as described. The inspectors observed instrument and control personnel lift covers off of instrumentation during surveillances. However, section 7.6.3.3.1 stated that operations personnel must remove the cover plate, access plug, or sealing device from instruments. This discrepancy did not have safety consequences. The licensee planned to revise this requirement. This will be tracked as Inspection Followup Item (IFI) 50-263/96002-01.

2.3 Completed 4kV Breaker Maintenance and Associated Training Was a Strength

The inspectors reviewed completed 4kV electrical maintenance work packages and determined that the procedures were detailed, contained vendor recommendations, and adequate acceptance criteria. Measuring and testing equipment used and the associated calibration due dates were documented in the completed packages. The post maintenance testing included time response testing of the breakers. The inspectors considered time response testing as an excellent method to trend or predict declining breaker performance. The licensee's requirement for time response testing was considered a strength. The inspectors noted that a majority of the quality control (QC) witness points throughout the work procedures were waived by a QC inspector. In some of the work packages about half the witness points were actually performed. However, the inspectors did not identify problems that affected the quality of the maintenance work.

The inspectors reviewed the training records and experience of the 4kV system field technician (SFT) maintenance crews. The inspectors determined that the licensee's corporate management required a 4 year apprenticeship for the Minneapolis based SFT personnel. The apprentice SFTs were required to attend training classes, pass written examinations, and work under the direction of an experienced journeyman SFT. The inspectors found that all the current journeymen SFTs met the classroom and on the job training requirements. In addition, the Monticello training department provided the SFTs with site specific training on the Monticello work control process and procedures.

The inspectors determined that personnel now performing maintenance on the 4kV breakers were classified as electrical mechanics and were former SFTs. The licensee's corporate management had moved some of the former SFTs to the St. Cloud branch office to place the maintenance workers closer to the job sites. This allowed the same crew to perform the 4kV electrical maintenance and become more familiar with the type of 4kV breakers and procedures used at Monticello.

The inspectors concluded that 4kV electrical maintenance activities were accomplished by skilled and qualified maintenance personnel.

2.4 Material Condition of Plant Equipment Was Good With Few Exceptions

During routine plant tours and observations of activities, the inspectors concluded that material condition of equipment remained good. However, some material condition problems were identified. The inspectors verified that the equipment was operable and that the licensee initiated work orders to correct the degrading conditions. On February 8, the inspectors noted increased noise in the vicinity of the #12 reactor protection system motor generator set. Engineering personnel confirmed increased vibration and initiated a work order.

3.0 ENGINEERING

NRC Inspection Procedure 37551 was used to perform an onsite inspection of the engineering function.

3.1 Observations Identified Regarding Emergency Lighting and Testing Acceptance Criteria

As discussed in Inspection Report 263/95010, the inspectors were concerned about the licensee's acceptance criteria established for emergency light batteries. The inspectors determined that maintenance of the batteries was acceptable; however, data taken during the surveillances was not always evaluated by engineering.

The inspectors reviewed the monthly and 8-hour discharge surveillances and had the following concerns:

- Vendor information not available The system engineer was unable to retrieve vendor information regarding acceptance criteria for the 8-hour test and battery maintenance.

- Proper illumination not considered Procedure 1294, revision 17, "8-Hour Emergency Lighting Discharge Test," stated that an automatic switching device would disconnect the emergency lights when the battery voltage drops to 2.9V ±10% and that the lights were considered functional if the lights continued to illuminate at the end of the 8-hour test. The inspectors discussed the acceptance criteria with electrical maintenance personnel who indicated that they had not been instructed on what should be considered acceptable illumination.

  According to vendor information, obtained by the inspectors during an inspection at another site, emergency lights delivered approximately 60% of the original illumination level when the battery voltage decreased to 87.5% of nominal battery voltage (5.25V). The vendor information also stated that once a battery was discharged to 75% (4.5V), a majority of the cell energy was expended and further discharge would cause voltage to decrease rapidly, leading to cell reversal and probable battery damage. The inspectors noted that in the previous 8-hour discharge tests

the "A" emergency light battery located in the emergency filtration train (EFT) building read 3.89 volts at the end of the test.

- Internal inaccuracies not considered in current surveillance The licensee's acceptance criteria of 2.9V ±10% did not consider inaccuracies in the internal shutoff switch and the battery charger voltmeter.

  The vendor information also stated that if the hydrometer disks were not floating, then the battery would need to be replaced. In addition, the vendor information stated that each of the three hydrometer disks corresponds to a loss of approximately 25% of the battery capacity or loss of specific gravity.

- Maintenance activities not documented Electricians occasionally added demineralized water in the battery cells during monthly surveillances; however, the amount added was not documented or trended.

The inspectors discussed these observations with engineering management. Prior to this followup inspection, the licensee had initiated a procedure revision to change the acceptance criteria for the 8 hour test to the vendor specified value of 5.25 volts. The inspectors questioned if the licensee considered the status of the EFT emergency lighting battery in light of the new illumination information. The licensee reviewed the surveillance and replaced the battery. The licensee also decided to include a step for the electricians to verify the hydrometer disks were floating and document any water addition. The inspectors have no further questions.

3.2 Emergency Service Water (ESW) Pump in the Required Action Range

On January 15 during routine surveillance testing, the licensee noted that the #13 ESW pump differential pressure was in the alert range. The system engineer evaluated the pump's performance and declared it operable. The pump was placed on an accelerated testing frequency.

On February 12 the pump's differential pressure (63.85 psid) increased to the required action range. The acceptance criteria for total system flow was met. However, the licensee declared the pump inoperable since it could not meet the ASME section XI testing requirements. Operations personnel entered a 24 hour limiting condition for operation (LCO) since this pump supplied cooling water for the "A" train RHR pumps, CS pumps, and corner room cooler. Because of an earlier freezing event (section 2.1.1), the licensee verified the calibration of various instruments and cycled the root valve of the pump discharge pressure indicator. The surveillance test was reinitiated. To verify proper operation, the system engineer monitored pump differential pressure and vibration for about four hours. No abnormalities were noted and the pump's

differential pressure reduced to the acceptable range. The licensee declared the pump operable and exited the LCO.

The root cause for the original out-of-tolerance reading was not determined. Silting within the system had been a previous problem and was suspected. The licensee planned to continue accelerated testing as a precautionary action. The licensee also planned to inspect the intake structure bay during the next refueling outage.

The licensee's actions were aggressive. Operations personnel prepared for a shutdown in the event the pump was not returned to operable status. Support to the system engineer was considered excellent.

3.3 Licensee Identified Discrepancy in USAR

On February 7, 1996, the licensee notified the inspectors of a discrepancy in the USAR regarding required fuel pool cooling temperatures. The licensee identified that USAR section 10.2.2.3 contained two maximum spent fuel storage pool temperatures (125°F and 140°F). The licensee believed that 125°F referred to normal offloads whereas the 140°F referred to the emergency offload. The licensee planned to revise the USAR. This issue is an Inspection Followup Item (IFI)(50-263/96002-02(NRR)) and will be reviewed during a special inspection of the fuel pool design basis.

3.4 Good Communication During Technical Review Team Meeting

The inspectors attended the technical review team meeting on the emergency diesel generator (EDG) electrical upgrades described in design change #93Q415. The purpose of the design change was to improve the operation of the circulating oil and turbo circulating oil pump low pressure alarms. The design change would also replace the existing EDG speed sensing relays. The inspectors noted that all the participants in the meeting were familiar with the subject matter. There was a good exchange of information, participants raised important questions and considerations, and the comments and questions were constructive. The responsibility of each team participant was clearly established and nearly everyone in attendance participated in the discussions.

4.0 PLANT SUPPORT

NRC Inspection Procedures 71750, 81700, 82701, and 83750 were used to perform an inspection of plant support activities.

4.1 Radiological Controls

4.1.1 Weaknesses Relating to Workers Not Wearing Administrative Dosimetry

The licensee experienced some problems with radiation workers' use of electronic dosimetry (EDs). The licensee determined, during a review of a related issue, that security force members posted in the turbine building were not wearing EDs when logged into a radiologically

controlled area (RCA). The general radiation work permit (RWP) used for security rounds required EDs to be worn, except during special circumstances which did not apply to the security force. Several members of the security force erroneously believed that the exception from wearing EDs was always applicable and therefore, they did not wear EDs during turbine building rounds. Since the security force members wore assigned dosimeters of record (a thermoluminescent dosimeter), each member was monitored for radiation exposure while in the RCA. The licensee clarified the exception to the RWP and instructed the security force that the exception was not applicable to security. The licensee was evaluating general station personnel knowledge of the RWP. Because of the low radiation dose rates in the turbine building and the generally low doses received by the security force, these incidents were of minimal consequence.

The licensee also identified another incident where a worker did not properly use an ED as required by the RWP used for condenser room work. During work in the condenser room, the accumulated dose alarm on both an operator's and a radiation protection (RP) specialist's ED annunciated. The area was a locked high radiation area and had expected dose rates between 1000 to 2000 mrem/hr. Both individuals exited the condenser room as required in response to the alarm. Since the operator did not complete the job in the condenser room, an operations manager offered to dress-out and complete the job. After completing the task, the RP specialist, who had remained outside the condenser room to monitor the manager's time in the room, observed that the manager was not wearing an ED. While dressing out, the manager had inadvertently left his ED at the dress out area and had entered the condenser room. The RP specialist monitored the manager's dose for the duration of the job. The manager's access to the RCA was suspended, pending the completion of corrective actions.

The failure to wear an ED as required by the RWPs which were in place for the security rounds and the condenser room work is a violation of TS 6.5.B. These failures constitute two examples of a violation of minor significance and are being treated as a Non-Cited Violation (263/96002-03), consistent with Section IV of the NRC Enforcement Policy.

4.2 Security

4.2.1 Security Barrier Breached During RHRSW Pump Maintenance

As discussed in section 2.1.1, to facilitate repairs on the #11 RHRSW pump and motor, two security barriers were breached. During the removal of the pump and motor, a guard was posted as a compensatory measure. When the first barrier was reestablished, the guard left the area, unaware that a second barrier was also breached. Two other security guards on separate rounds did not notice anything unusual in the area. About three hours later, a third security guard on rounds identified the breach in the second barrier.

The inspectors had the following concerns:

- Although the barriers were discussed during the security turnover earlier in the day, security management placed more emphasis on one.

- No instructions or precautions were placed in the maintenance procedure to alert security to this second breached barrier. The instructions (that were provided) implied that the protective plate was for foreign material exclusion and personnel safety.

The licensee immediately secured the area and made the appropriate notifications. The immediate corrective actions included issuing a letter to all supervisors on expectations regarding compensatory posts and a review of their responsibilities. This event is an Unresolved Item (263/96002-4) pending a review of the licensee's investigation and corrective actions by a region based security specialist and will be documented in Inspection Report No. 263/96003. This event was also the subject of Licensee Event Report 263/96001.

4.2.2 Routine Meeting with Security Management

The inspectors met with members of onsite and corporate management to discuss recent events and performance trends. Topics included plans for the refueling outage, installation of the owner controlled area gatehouse, and potential changes to contingency plans based on probabilistic risk assessment results. The licensee also discussed one event involving unattended safeguards material for about 3 minutes. The inspectors will review the licensee's corrective actions during Inspection Report No. 263/96003.

4.3 Emergency Preparedness

A specialized inspection of the operational status of the emergency preparedness (EP) program was performed per Inspection Procedures 82701 and Temporary Instruction (TI) 2515/131, "Licensee Offsite Communications Capabilities".

4.3.1 Emergency Response Facilities, Equipment, Instrumentation and Supplies Were in Excellent Condition

Inspections were conducted in the Control Room, Technical Support Center (TSC), Operational Support Center, Emergency Operations Facility (EOF), and the Headquarters Emergency Center (HQEC) which serves as the backup EOF for both Monticello and Prairie Island Nuclear Plants. Facilities and equipment were in an excellent state of operational readiness.

Installation of a new emergency ventilation system in the TSC was completed in January of 1996. This modification separated the control room's safety-related emergency ventilation system from the TSC.

An upgrade to the emergency augmentation callout system resulted in an expanded area covered by the new pagers. Additionally, the upgrade improved reliability and provided the capability to send special messages through the pagers.

The prompt alert and notification sirens were upgraded to provide improved lightning protection and siren activation verification by the addition of radio transmitters and indicator test lights on each unit.

Records of the licensee's offsite siren program and test documentation were reviewed. The system reliability was excellent with a January 1996 12 month rolling average of 96.5 percent. No problems or concerns were identified.

4.3.2 Good Organization and Management Control

The inspectors interviewed the EP and training staffs to determine if changes to the organization, management, or program impacted the effectiveness of the program. Emergency Planners and the EP Senior Technical Instructor report to the Superintendent of EP and General Training who then reports to the Plant Manager through the Training Manager. No concerns were identified with this report path.

Numerous EP program enhancements were discussed in addition to the upgraded sirens, pagers, and TSC emergency ventilation system. These upgrades and enhancements indicated the proactive attitude and continued management support of the EP program.

4.3.3 Training Records Reviewed Were Good

The inspectors noted that training, drills and exercises were formally critiqued. Critique items from training and drills were captured, tracked, and closed in an excellent manner. Selected EP training lesson plans were reviewed and found to be appropriately updated. The inspectors reviewed the most recent Emergency Response Organization (ERO) Training Tracking printout, the February - April 1996 Nuclear Emergency Preparedness Telephone Directory, and random documentation reviews and determined that all reviewed ERO personnel were currently qualified.

The inspectors interviewed several key ERO personnel including a TSC Emergency Director, Control Room Shift Manager, Shift Emergency Communicator, and an EOF Emergency Manager. Personnel interviewed responded very well to questions regarding their emergency responsibilities and were familiar with emergency actions and procedures.

4.3.4 QA Audits Exceeded Requirements

The 1995 and 1994 annual audits of the EP program for Monticello and Prairie Island were reviewed and found to be of excellent scope and depth, meeting and exceeding the requirements of 10 CFR Part 50.54(t).

The audits concluded that EP activities were effectively implemented. Documents reviewed indicated the section of the audits dealing with the adequacy of the offsite interface had been provided to offsite authorities as required. The audit included performance-based activities where auditors observed surveillances and training.

A finding related to EP full face respirators not being inspected or tested and a deficiency related to an incorrect approval title on scenario packages was identified in the 1995 audit. The licensee's corrective actions included periodic respirator inspections and a procedure change to correct the title for approval of scenario packages.

4.3.5 Licensee Offsite Communications Capabilities Appeared Appropriate

The inspectors reviewed the licensee's offsite communication capabilities using TI 2515/131, "Licensee Offsite Communications Capabilities".

The licensee's communications systems available to notify offsite agencies in the event of natural disasters included:

1. SONNET, NSP's private "two ring", self-healing, fiberoptics system, connected to commercial phone lines in Minneapolis, available in the plant and emergency response facilities (ERFs).
2. Commercial phone lines, out of Bridgewater Telephone in Monticello, MN were available in the plant and ERFs.
3. FTS 2000 phone lines available in the ERFs.
4. Auto Ring Down phone lines, were dedicated, leased commercial lines located in the TSC and EOF, connected to the State EOC, initiated a call from all phone drops.
5. Radio was available in the control room, TSC, EOF, backup EOF (HQEC), and communicated with the local EOCs, State EOC and the EOF communicated with the State Police.
6. Cellular phones in the field monitoring vehicles and Plant Manager's car, and
7. Two additional commercial exchanges (Minneapolis and St. Cloud) in the EOF and one additional (St. Cloud) in the TSC.

The communications room on the first floor of the administration building (a Class 2 design building) was the central point for wired telecommunications. The room was locked and required card key for entry.

All telecommunication lines were buried. A common mode vulnerability pertaining to a fire in the communications room was identified. All communications power sources were backed by battery and the #13 station blackout diesel generator with the exception of commercial phone lines, HQEC radio (has its own emergency diesel generator), and the cellular phones.

Spare parts including boards for phone switch, radio, and cabling were stocked. Telephone directories listed the available communications

capabilities; however, no contingency communications procedures were available. This was acceptable due to the battery backup, the #13 station blackout diesel generator backup, and the ability to switch to the #11 emergency diesel generator if necessary.

This temporary instruction is closed.

5.0 REVIEW OF UPDATED FINAL SAFETY ANALYSIS REPORT (UFSAR) REQUIREMENTS

A recent discovery of a licensee operating their facility in a manner contrary to the Updated Final Safety Analysis Report (UFSAR) description highlighted the need for a special focused review that compares plant practices, procedures, and parameters to the UFSAR description. While performing the inspections discussed in this report, the inspectors reviewed the applicable portions of the UFSAR that related to the areas inspected. The following inconsistencies were noted between the wording of the UFSAR and the plant practices, procedures, and parameters observed by the inspectors.

An issue involving the spent fuel pool cooling capability and temperature requirements was discussed in section 3.3 and was considered an Inspection Followup Item.

An issue involving the conduct of surveillances was discussed in section 2.2 and will be tracked as Inspection Followup Item 50-263/96002-01. The licensee planned to revise the UFSAR.

An issue involving the ability of the reactor building refuel floor superstructure to withstand tornado loads was discussed in section 3.1 in Inspection Report (50-263/95012). This is currently an inspection followup item and is being addressed by the licensee.

An issue involving failure to meet single failure criteria for two containment isolation valve indication was discussed in section 3.4 of Inspection Report (50-263/95010). The licensee identified the deficiency during a design basis verification and is addressing it. This issue will be tracked as Inspection Followup Item 50-263/96002-04.

6.0 PERSONS CONTACTED AND MANAGEMENT MEETINGS

6.1 Exit Meeting

On February 29, the inspectors met with Mr. W. Hill, Plant Manager, and summarized the scope and findings of the inspection activities. The licensee did not identify any of the documents or processes reviewed by the inspectors as proprietary.

The inspectors contacted various licensee operations, maintenance, engineering, and plant support personnel throughout the inspection period. Senior personnel are listed below.

E. Watzl, Vice President Nuclear
W. Hill, Plant Manager
M. Hammer, General Superintendent Maintenance
K. Jepson, Superintendent, Chemistry
L. Nolan, General Superintendent Safety Assessment
M. Onnen, General Superintendent Operations
E. Reilly, Superintendent Plant Scheduling
C. Schibonski, General Superintendent Engineering
W. Shamla, Manager Quality Services
J. Windschill, Superintendent, Radiation Protection

6.2 Regional Administrator Site Visit

On February 8, 1996, Mr. H. Miller, Regional Administrator, Region III, and Mr. M. Jordan, Division of Reactor Projects Chief, Branch 7 met with Mr. E. Watzel, Vice President Nuclear Operations, and others to discuss plant performance and conduct of maintenance activities. A brief tour of the facility was included during this visit. Mr. Miller was encouraged by the low maintenance backlog and good material condition of the plant equipment. Mr. Hill, Plant Manager, discussed initiatives to improve personnel performance during the upcoming refueling outage.

7.0 DEFINITIONS

7.1 Inspection Followup Items

Inspection Followup Items are matters which have been discussed with the licensee which will be reviewed further by the inspectors and which involve some action on the part of the NRC or licensee or both. Inspection Followup Items disclosed during this inspection are discussed in sections 2.2, 3.3., and 5.0.

7.2 Unresolved Items

Unresolved Items are matters about which more information is required in order to ascertain whether they are acceptable items violations or deviations. An Unresolved Item disclosed during this inspection is discussed in section 4.2.1.

7.3 VIOLATIONS FOR WHICH A "NOTICE OF VIOLATION" WILL NOT BE ISSUED

The NRC uses the Notice of Violation as a standard method for formalizing the existence of a violation of a legally binding requirement. However, because the NRC wants to encourage and support licensee's initiatives for self-identification and correction of problems, the NRC will not generally issue a Notice of Violation for a violation that meets the tests of the NRC Enforcement Policy. These tests are: 1) the violation was identified by the licensee; 2) the violation would be categorized a Severity Level IV; 3) the violation will be corrected, including measures to prevent recurrence within a reasonable time period; and 4) it was not a violation that could reasonably be expected to have been prevented by the licensee's

corrective action for a previous violation. A Violation of regulatory requirements identified during this inspection for which a Notice of Violation will not be issued is discussed in Section 4.1.1.