UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

February 03, 2000

Mr. Michael T. Coyle
Vice President
Clinton Power Station
AmerGen Energy Company
Mail Code V-275
P. O. Box 678
Clinton, IL 61727

SUBJECT: CLINTON INSPECTION REPORT 50-461/99018(DRP)

Dear Mr. Coyle:

On January 12, 2000, the NRC completed an inspection at the Clinton Power Station. The enclosed report presents the results of that inspection.

During the period covered by this inspection, your staff's conduct of activities at the Clinton Power Station was generally characterized by safety-focused operations. The plant continued to operate well and few challenges were presented to plant operators. However, poor coordination within the operations department led to work being conducted on a waste collector tank before its contents were drained and a spill of a waste water/resin mixture in the ultrasonic resin cleaner tank room. In addition, radiation protection personnel failed to promptly inform plant management of the water/resin mixture spill once it was identified.

Based on the results of this inspection, the NRC has determined that one violation of NRC requirements occurred. The violation concerned the failure to establish measures to ensure that design basis information was correctly translated into specifications for the high pressure core spray system minimum flow valve molded case circuit breaker. This violation is being treated as a Non-Cited Violation (NCVs), consistent with Section VII.B.1.a of the Enforcement Policy. The NCV is described in the subject inspection report. If you contest the violation or the severity level of the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to the Regional Administrator, Region III, and the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

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In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, the enclosures, and your response, if you choose to provide one, will be placed in the NRC Public Document Room.

Sincerely,

/s/ M. Dapas

Marc L. Dapas, Deputy Director
Division of Reactor Projects

Docket No. 50-461
License No. NPF-62

Enclosure: Inspection Report No. 50-461/99018(DRP)

cc w/encl: P. Hinnenkamp, Plant Manager
M. Reandeau, Director - Licensing
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G. Stramback, Regulatory Licensing
Services Project Manager
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| DATE | 02/8/2000 | | 02/9/2000 | | | | | |

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

| | |
|---|---|
| Docket No: | 50-461 |
| License No: | NPF-62 |
| Report No: | 50-461/99018(DRP) |
| Licensee: | AmerGen Energy Company |
| Facility: | Clinton Power Station |
| Location: | Route 54 West<br>Clinton, IL 61727 |
| Dates: | December 2, 1999 - January 12, 2000 |
| Inspectors: | P. L. Louden, Senior Resident Inspector<br>K. K. Stoedter, Resident Inspector<br>C. E. Brown, Resident Inspector<br>D. E. Zemel, Illinois Department of Nuclear Safety |
| Approved by: | Thomas J. Kozak, Chief<br>Reactor Projects Branch 4<br>Division of Reactor Projects |

## EXECUTIVE SUMMARY

Clinton Power Station
NRC Inspection Report 50-461/99018(DRP)

This inspection included aspects of licensee operations, maintenance, engineering and plant support. The report covers a 6-week period of resident inspection.

### Operations

- Poor coordination within the operations department resulted in the initiation of work on a waste collector tank prior to the draining of its contents. This led to an overflow of the floor drain system and the spill of a water/resin mixture in the ultrasonic resin cleaner tank room (Section O4.1).

- The inspectors monitored onsite activities during the Year 2000 rollover to observe any impacts the rollover might have on the plant. During the rollover, no grid disturbances, plant transients, or equipment problems occurred. Two minor Year 2000 related software problems, which were not previously anticipated, were identified on January 2, 2000. One problem involved a graphics program and the other affected the automatic channel-check function for the area and process radiation monitoring system. Neither problem had an operational impact on the plant and the licensee promptly corrected both problems (Section O8.1).

### Maintenance

- The inspectors determined that engineering and maintenance personnel did not have a common understanding of the preventive maintenance review process. As a result, personnel were not consistently identifying and addressing the impact of equipment concerns on plant operations (Section M1.1).

- The inspectors concluded that the licensee appropriately developed the required corrective action plans and goals for systems classified as (a)(1) under the maintenance rule (10 CFR 50.65) (Section M1.2).

### Engineering

- The inspectors concluded that the drawings for the 125-Vdc system were accurate. Although the inspectors identified that the Division II battery calculation allowed for only a 1.1 percent margin while the coping analysis assumed a 5.0 percent margin, design basis loading calculations for the safety-related batteries reflected that adequate battery capacities were available to ensure that the batteries would perform their intended safety function for the time specified in the licensee's station blackout coping analysis (Section E1.1).

- One Non-Cited Violation was identified concerning the failure to establish measures to ensure that design basis information was correctly translated into specifications for the high pressure core spray (HPCS) system minimum flow valve molded case circuit breaker. Specifically, the original specifications did not provide sufficient trip setting

margins to ensure that the molded case circuit breaker did not trip during HPCS system operation (Section E8.1).

Plant Support

- The inspectors determined that activities associated with lowering the upper containment pool level and controlling changing radiological conditions were effective as reflected in the licensee's accomplishing the evolution with a minimal increase in area dose rates and no changes in airborne contamination levels (Section R1.1).

- The inspectors determined that radiation protection personnel performance deficiencies, such as failing to recognize and inform management of unusual radiological conditions and not maintaining a questioning attitude, existed in connection with a resin spill in the ultrasonic resin cleaner tank room (Section R1.2).

## Report Details

Summary of Plant Status

The licensee operated the unit at 100-percent power for most of the inspection period. On December 31, 1999, the licensee lowered power to 80 percent as a precautionary measure in anticipation of the Year 2000 rollover. Following the rollover to the new year and the completion of planned routine surveillances, the licensee returned unit power to 100 percent on January 1, 2000.

## I. Operations

### O1 Conduct of Operations

Throughout the inspection period the inspectors conducted routine observations of activities in the main control room (MCR). In general, the inspectors observed consistent use of three-way communications, that control panel alarms were announced and acknowledged as expected, and that a quiet MCR environment was maintained.

### O3 Operations Procedures and Documentation

O3.1 Review of 125-Volt Direct Current Procedures (71707)

As part of an inspection of the 125-volt direct current (Vdc) system, the inspectors reviewed 125-Vdc system operating procedures, off normal procedures, and annunciator response procedures. The procedures contained clear instructions and guidance for conditions involving the 125-Vdc system and accurate set point references for alarm conditions. The inspectors concluded that operations department procedures for the 125-Vdc system were clearly written and effectively implemented.

### O4 Operator Knowledge and Performance

O4.1 Work on Waste Collector Tank Without First Draining the Tank

a. Inspection Scope (71707)

The inspectors reviewed the circumstances surrounding the initiation of work on a waste collector tank prior to its contents being drained.

b. Observations and Findings

On December 15, 1999, radioactive waste operators identified that flow rates were abnormally low during a waste water transfer from the Unit 1 waste collector tank to the Unit 2 waste collector tank and determined that this was due to clogged spargers (mixing devices) in the Unit 1 tank. Operations personnel initiated a tag-out and developed plans to drain the Unit 1 and 2 waste collector tanks to allow the spargers to be unclogged.

On December 20, 1999, the tag-out for the sparger work was issued. During a pre-job briefing for the work activity, the operators who were placing the tag-out and aligning plant equipment were told that the Unit 1 and Unit 2 waste collector tanks were empty. However, the tanks had not been emptied yet. Approximately 5 minutes after operations personnel opened the Unit 2 waste collector tank drain valve, the radioactive waste operations center (ROC) operator received a hi-hi sump-level alarm for the radioactive waste building floor drain system. The ROC operator immediately requested an operator to close the Unit 2 waste collector tank drain valve. Operations personnel inspected surrounding hallways for evidence of water backing up through a floor drain. No water backup was evident.

On December 21, fix-it-now team personnel entered the ultrasonic resin cleaner (URC) tank room to inspect a sight glass. During the room entry, a radiation protection (RP) technician identified that resin was on the URC tank room floor. Although this information was provided to the RP technician's supervisor, the information was not communicated to licensee management. As a result, actions to clean up the URC tank room were not initiated for approximately 6 days. Further discussion on the radiological aspects of this issue is contained in Section R1.2 of this report.

In response to this issue, licensee management initiated a root cause investigation team. The investigation team identified that the waste water/resin mixture spill occurred because the capacity of the floor drain system was not adequate to keep up with the waste flow from the Unit 2 waste collector tank when the drain valve was fully opened. The floor drain backed up and overflowed in the URC tank room. The licensee determined that coordination errors within the operations department contributed to the spill. Specifically, mis-communications, a lack of attention-to-detail, and ineffective self-checking techniques contributed to the resin spill.

c. Conclusions

Poor coordination within the operations department resulted in the initiation of work on a waste collector tank prior to the draining of its contents. This led to an overflow of the floor drain system and the spill of a water/resin mixture in the URC tank room.

## O8 Miscellaneous Operations Issues

### O8.1 Onsite Inspector Activities for the Year 2000 Rollover

a. Inspection Scope (71707)

The inspectors monitored onsite activities from 9:00 p.m., December 31, 1999, until 5:00 a.m., January 1, 2000, to observe any impact the Year 2000 rollover might have on the plant.

b. Observations and Findings

The inspectors observed that the MCR staff was attentive to electrical grid voltage and frequency indications and had contingency plans prepared for the occurrence of a problem. The licensee did not identify any grid disturbances, plant transients or equipment challenges during the Year 2000 rollover.

On January 2, 2000, the licensee identified two Year 2000 related software problems which were not previously anticipated. The first problem pertained to a graphics program for trending plant data. The licensee determined that the problem was due to the use of two-digit data contained in the programming code. This prevented the program from functioning properly after the Year 2000 rollover. The problem was corrected later the same day. The graphics program did not impact the validity of any data associated with operating parameters and had no effect on the plant. The second problem involved an automatic-channel check portion of software for the area and process radiation monitoring system. To conduct an adequate automatic channel check, the software used reference data from the previous 8-hour period. Due to the software error, the channel check historical database erased the reference data after midnight, following the Year 2000 rollover. When operators attempted to complete the channel check during the midnight shift on January 2, 2000, an error message was displayed stating that insufficient data was available to conduct the channel check. This problem did not impact the operators' ability to manually collect radiation measurement data. Licensee personnel attributed the problem to the use of a two-digit date format in the history file portion of the software. The licensee corrected the problem by changing the software to a four-digit date format and restored the automatic channel check function on January 7, 2000.

c. Conclusions

The inspectors monitored onsite activities during the Year 2000 rollover to observe any impacts the rollover might have on the plant. During the rollover, no grid disturbances, plant transients, or equipment problems occurred. Two unanticipated minor Year 2000 related software problems were identified on January 2, 2000. One problem involved a graphics program and the other affected the automatic channel check function for the area and process radiation monitoring system. Neither problem had an operational impact on the plant and the licensee promptly corrected both problems.

## II. Maintenance

### M1 Conduct of Maintenance

M1.1 Review of Preventive Maintenance Improvement Project (PMIP) Activities

a. Inspection Scope (62707)

During the extended plant shutdown, the licensee initiated the PMIP to develop new preventive maintenance (PM) activities and improve plant material condition. On January 4, 2000, the inspectors observed the completion of three, first-time PM tasks associated with emergency core cooling system (ECCS) ventilation (VY) system instrumentation. The inspectors also reviewed the as-found and as-left calibration data to ensure that the VY system instrumentation remained operable following the completion of PM activities.

b. Observations and Findings

The VY system instrumentation provided actuation signals to MCR annunciators. During a review of the as-found calibration data, the licensee identified that all three instruments were operating outside of the allowable acceptance criteria. One of the three instruments was operating significantly outside of the acceptance criteria such that the associated MCR annunciator may have failed to actuate when expected.

The inspectors questioned engineering and maintenance personnel to determine how PM data was reviewed and evaluated for potential adverse equipment or operating conditions. The inspectors determined that engineering and maintenance personnel did not share a common understanding of the PM review process. As a result, licensee personnel were not consistently reviewing PM data to identify equipment operating problems. In response to the inspectors' questioning, maintenance personnel reviewed all of the completed first-time PM tasks and determined that the MCR annunciators were reliable. However, the same personnel also identified that the PM review process was not adequate to ensure that future issues regarding the reliability of MCR annunciators and other potential equipment problems were effectively identified and addressed.

As part of the corrective actions for this issue, the licensee initiated condition report (CR) 2-00-01-061 to document the problems with the PM review process. Maintenance personnel were also instructed to generate a CR whenever as-found calibration data were outside of the allowable acceptance criteria to ensure that the impact on MCR annunciators, plant equipment, and plant operations was appropriately evaluated.

c. Conclusions

The inspectors determined that engineering and maintenance personnel did not have a common understanding of the PM review process. As a result, personnel were not consistently identifying and addressing the impact of the equipment concerns on plant operations.

M1.2 Maintenance Rule (MR) Implementation

a. Inspection Scope (62707)

The inspectors reviewed portions of the licensee's MR (10 CFR 50.65) program.

b. Observations and Findings

In the licensee's November 1999 Monthly MR Performance Report, it was stated that there was excessive unavailability time for four MR functions. Through interviews with engineering, operations, and work management personnel, the inspectors determined that the licensee was identifying work activities that could be combined in an effort to reduce the unavailability hours and plant risk. The inspectors considered the licensee's actions to be an effective use of MR information.

During a review of structures, systems, and components (SSCs) classified as (a)(1) under the MR, the inspectors determined that for all (a)(1) systems, the licensee had established goals and corrective action plans. The corrective action plans were revised

as required to include information on new critical component failures and to ensure that goals for the critical component failures were established. The inspectors reviewed a sample of the corrective action plans and determined that they were being implemented as scheduled.

The inspectors reviewed Quality Assurance (QA) assessment report 1999-09-23-23 and determined that the report thoroughly evaluated the licensee's MR program. During the audit, it was identified that a CR initiated to address MR issues on TS-required doors had been closed by writing six action requests (ARs) to accomplish needed repairs. Subsequently, the ARs had been rescheduled on several occasions and work management personnel were unaware that the ARs were written to resolve MR issues. To focus attention on this issue, the MR coordinator developed a performance indicator to track planned versus actual completion of MR actions.

c. Conclusions

The inspectors concluded that the licensee appropriately developed the required corrective action plans and goals for systems classified as (a)(1) under the MR.

## M3 Maintenance Procedures and Documentation

M3.1 Review of 125-Vdc Surveillance Test Results (61726)

As part the 125-Vdc system review, the inspectors examined the completed documentation for surveillance tests conducted over the past year. The specific tests included:

Procedure 9382.01, "Battery Weekly Surveillance"
Procedure 9382.02, "Battery Quarterly Surveillance"
Procedure 9382.04, "Battery Resistance Checks"
Procedure 9382.13, "Division II Battery Service Test"

Other than minor documentation inconsistencies, the inspectors determined the surveillance tests were appropriately conducted and test acceptance criteria were met.

## M8 Miscellaneous Maintenance Issues (92902)

M8.1 (Closed) Violation 50-461/998005-07(DRS): This violation, for which enforcement discretion was exercised, involved the failure to monitor goals for (a)(1) SSCs. Specifically, the licensee was not: 1) identifying maintenance preventable functional failures (MPFFs), 2) identifying and tracking unavailability, and 3) monitoring the unavailability of SSCs which were required to be available during shutdown conditions. During the follow up MR inspection, the NRC closed the portions of the violation regarding the tracking of MPFFs and unavailability of SSCs needed for shutdown operations. However, the other portions of the violation remained open pending further review by the NRC.

During this inspection period, the inspectors reviewed QA audit Q38-99-01, MR Assessment Report 1999-09-23-23, monthly performance indicators, the 1999 Third Quarter System Health Report, the Material Condition Management Program trend

report, selected CRs, the MR data base, and MCR logs. The inspectors determined that the unavailability figures included in the MR data base were accurate. Additionally, the MR coordinator reviewed the unavailability times and conditions to ensure that any errors were identified and corrected.

In regards to the identification of MPFFs, the inspectors determined that MPFFs were being identified due to changes in the licensee's MR program which required all SSC failures classified as "not maintenance preventable" to be reviewed by the MR expert panel within 30 days of resolution. The inspectors considered the licensee's corrective actions to be effective. This violation is closed.

## III. Engineering

### E1 Conduct of Engineering

E1.1 Review of 125-Vdc System Drawings and Calculations

a. Inspection Scope (37551)

The inspectors conducted a review of 125-Vdc engineering design drawings to verify that the drawings accurately depicted the as-built plant configuration. Loading calculations associated with the 125-Vdc system were also reviewed to ensure that the assumptions in the calculations were consistent with the licensee's station blackout (SBO) coping analysis.

b. Observations and Findings

The inspectors determined that the engineering design drawings accurately represented the as-built plant configuration for the 125-Vdc system. Through a review of the loading calculations, the inspectors determined that the calculation for the Division II battery allowed for only a 1.1 percent margin while the coping analysis assumed a 5.0 percent margin. Based on the low margin contained in the Division II battery calculation, the inspectors conducted interviews with design engineering personnel to ascertain the quality of the calculation and the ability of the Division II battery to meet its 4-hours SBO required coping time. The inspectors determined that the parameter assumptions in the Division II battery loading calculation were conservative such that the battery would perform its safety function during an SBO event.

c. Conclusions

The inspectors concluded that the drawings for the 125-Vdc system were accurate. Although the inspectors identified that the Division II battery calculation allowed for only a 1.1 percent margin while the coping analysis assumed a 5.0 percent margin, design basis loading calculations for the safety-related batteries reflected that adequate battery capacities were available to ensure that the batteries would perform their intended safety function for the time specified in the licensee's station blackout coping analysis.

## E8 Miscellaneous Engineering Issues (92700)

E8.1 (Closed) Licensee Event Report 50-461/99-012: Failure of original design supplier to provide sufficient circuit breaker trip setting margin results in potential for high pressure core spray (HPCS) system minimum flow valve to fail open and cause the HPCS system to deliver less than the design flow to the reactor during a loss of coolant accident. On October 26, 1999, the HPCS system minimum flow valve 480V molded case circuit breaker tripped and the minimum flow valve did not fully close during surveillance testing. The licensee initiated CR 1-99-10-177 to document this issue. Operations personnel also reported this issue to the NRC in accordance with 10 CFR 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors," as a condition outside the design basis.

During the root-cause investigation for this issue, the licensee identified that the HPCS system design supplier had not provided adequate trip setting margins for the molded case circuit breaker to prevent unintended trips. As a result, the HPCS system minimum flow valve circuit breaker tripped due to instantaneous overcurrent as the HPCS system minimum flow valve transitioned from the open to the closed position. To correct this condition, the licensee installed a larger molded case circuit breaker with adequate trip setting margins to prevent future inadvertent trips.

On November 24, 1999, engineering personnel completed an evaluation and determined that the HPCS system would have been able to perform its safety function as specified in 10 CFR 50.46, "Acceptance Criteria for Emergency Core Cooling Systems," with the HPCS system minimum flow valve in the open position. Based on the information provided in the engineering evaluation, the licensee retracted the 10 CFR 50.72 notification.

On November 26, the inspectors determined that the conclusions provided in the engineering evaluation which formed the basis for the licensee's decision to retract the 10 CFR 50.72 notification, were based on a methodology which was not approved for use by the NRC. On November 29, the inspectors discussed the use of the unapproved methodology with licensing and engineering personnel. After an additional review, the licensee agreed with the inspectors' conclusions and determined that the HPCS system minimum flow valve circuit breaker trip was a condition that was outside the design basis of the plant. The licensee also informed the inspectors that the decision to retract the original 10 CFR 50.72 notification had been made in error.

Criterion III of Appendix B to 10 CFR Part 50 states that measures shall be established to assure that applicable regulatory requirements and the design basis for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions. Criterion III of Appendix B to 10 CFR Part 50 applies to the HPCS system minimum flow valve molded case circuit breaker. The failure to establish measures to assure that design basis information was correctly translated into specifications for the HPCS system minimum flow valve circuit breaker is a violation of 10 CFR Part 50, Appendix B, Criterion III (NCV 50-461/99018-01). However, this Severity Level IV violation is being treated as a Non-Cited Violation, consistent with Section VII.B.1.a of the Enforcement Policy. This violation is in the licensee's corrective action program as CR 1-99-10-177. Corrective

actions included replacing the HPCS system minimum flow valve breaker and verifying that other potentially affected breakers had appropriate breaker trip setting margins.

## IV. Plant Support

### R1 Radiological Protection and Chemistry (RP&C) Controls

R1.1 Controlling Changing Radiological Conditions (71750)

The inspectors reviewed the licensee's work planning and execution activities to replace containment isolation valve 1FC135. The work conditions required operations personnel to lower the water level in the upper containment pool approximately one foot. Since lowering the upper containment pool level created a condition that could have caused the spread of radioactive contamination or an airborne radiation area, a coordination plan was developed. The coordination plan required personnel to scrub the portion of the upper pool wall that became uncovered when the water level was lowered and to keep the walls wetted to control the potential spread of contamination. The inspectors determined that activities associated with lowering the upper containment pool level and controlling changing radiological conditions were effective since the licensee completed the valve replacement with a minimal increase in personnel dose rates and no changes in airborne contamination levels.

R1.2 Radiological Protection Concerns With URC Tank Room Resin Spill

a. Inspection Scope (71707 and 71750)

The inspectors reviewed the performance of radiation protection (RP) personnel in response to the identification of a waste water/resin spill in the URC tank room.

b. Observations and Findings

As discussed in Section O4.1 of this report, operations department personnel opened the drain valve for the Unit 2 waste collector tank without first draining the tank. This resulted in water backup in the floor drain system and a waste water/resin mixture being spilled in the URC tank room.

On December 21, 1999, a fix-it-now team entered the URC tank room to conduct an inspection of the URC tank. An RP technician who accompanied the team identified resin on the tank room floor, surveyed the room, and took photographs of the spill. The RP technician exited the area and informed the radiation protection shift supervisor of the conditions in the URC tank room. However, no immediate action was taken by RP personnel because they considered the resin on the URC tank room floor to be a normal condition.

On December 24, 1999, an RP technician conducting routine surveys of the URC tank room step off pad identified contamination levels of 10,000 disintegrations per minute (DPM) on the step off pad. Additional surveys of the URC tank room identified contamination levels as high as 240 millirad/hr in the room. Radiation protection personnel initiated CR 1-99-12-114 to document the contamination levels in the URC

tank room, but management personnel were not informed of the radiological conditions in the URC tank room until 3 days later. On December 27, 1999, management personnel entered the URC tank room to assess the extent of the contamination and initiate decontamination efforts. The room was decontaminated during the next 2 work days. Throughout the time that the resin was on the URC tank room floor, unexpected personnel exposures or contaminations did not occur.

The licensee's root cause investigation for the radiological control problems concerning the resin spill was being finalized at the conclusion of the inspection period. However, based on the inspectors' understanding of information available at the end of the inspection period, RP personnel performance deficiencies existed regarding the sensitivity to unusual radiological conditions in the URC tank room, maintaining a questioning attitude, and ensuring management was informed of unusual radiological conditions.

c. Conclusions

The inspectors determined that RP personnel performance deficiencies, such as failing to recognize and inform management of unusual radiological conditions and not maintaining a questioning attitude, existed in connection with a resin spill in the ultrasonic resin cleaner tank room.

## V. Management Meetings

### X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on January 12, 2000. The licensee acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

## PARTIAL LIST OF PERSONS CONTACTED

Licensee

G. Baker, Manager - Nuclear Support Services
M. Coyle, Vice President
K. Gallogly , Director - Corrective Action
J. Goldman, Manager - Work Management
P. Hinnenkamp, Plant Manager - Clinton Power Station
W. Maguire, Director - Operations
M. Moore, Manager - Quality Assurance
M. Reandeau, Director - Licensing
R. Schenck, Manager - Maintenance
D. Smith, Director - Security and Emergency Planning
P. Walsh, Manager - Nuclear Station Engineering Department

## INSPECTION PROCEDURES USED

IP 37551: Engineering Observations
IP 61726: Surveillance Observations
IP 62707: Maintenance Observation
IP 71707: Plant Operations
IP 71750: Plant Support and Observations
IP 92700: Onsite Followup of Written Reports of Nonroutine Events at Power Reactor Facilities
IP 92902: Followup - Maintenance

## ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

| | | |
|---|---|---|
| 50-461/99018-01 | NCV | Failure to ensure design basis information was correctly translated into specifications for the HPCS system minimum-flow-valve breaker. |

Closed

| | | |
|---|---|---|
| 50-461/1998005-07 | NCV | Failure to establish and monitor maintenance rule goals. |
| 50-461/99-012 | LER | Failure of original design supplier to provide sufficient breaker-trip-setting margins for the HPCS system minimum-flow-valve breaker. |

Discussed

None

## LIST OF ACRONYMS

| | |
|---|---|
| CR | Condition Report |
| DPM | Disintegrations Per Minute |
| ECCS | Emergency Core Cooling System |
| HPCS | High Pressure Core Spray |
| LER | Licensee Event Report |
| LOCA | Loss of Coolant Accident |
| MCR | Main Control Room |
| MPFFs | Maintenance Preventable Functional Failure |
| MR | Maintenance Rule |
| NRAG | Nuclear Review and Audit Group |
| PM | Preventive Maintenance |
| PMIP | Preventive Maintenance Improvement Project |
| QA | Quality Assurance |
| ROC | Radioactive-waste Operations Center |
| RP | Radiation Protection |
| SBO | Station Blackout |
| SSCs | Structures, Systems, Components |
| TS | Technical Specification |
| URC | Ultrasonic Resin Cleaner |
| VDC | Volts Direct Current |
| VY | Emergency Core Cooling System Ventilation |