

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-254/91022(DRS); No. 50-265/91018(DRS)

Docket Nos.: 50-254; 50-265 Licenses No. DPR-29; No. DPR-30

Licensee: Commonwealth Edison Company
Opus West III
1400 Opus Place
Downers Grove, IL 60515

Facility Name: Quad Cities Nuclear Power Station
Units 1 and 2

Inspection At: Quad Cities Site, Cordova, Illinois

Inspectors:

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1/9/92
Date

Mac P. Huber for
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1/9/92
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Approved By:

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1-9-92
Date

Inspection Summary

Inspection conducted on December 9-19, 1991 (Reports No. 50-254/91022(DRS); No. 50-265/91018(DRS))

Areas Inspected: Announced safety inspection of the licensee's response to Generic Letter (GL) 89-10, "Safety-Related Motor-Operated Valve (MOV) Testing and Surveillance" (2515/109), licensee actions on a previously identified item of noncompliance (92701), and onsite followup of a Licensee Event Report (92700).

Results: The inspection disclosed one non-cited violation (NCV) (Paragraph 4.c.(1)) and one unresolved item (Paragraph 4.b.(4)).

The following NCV was identified and reviewed during this inspection: failure to follow procedures in repeatedly resetting thermal overloads for MOVs.

The licensee demonstrated strengths in the following areas:

The licensee used its simulator to train operators on the various differential pressure (dp) testing scenarios being proposed to meet the recommendations of the GL and to debug the dp test procedures.

- The commitment to the training program for MOVs was evident.

The licensee demonstrated a weakness in the following area:

- The interface between Commonwealth Edison Company staff and their contractors needs to be better defined to prevent errors when calculating MOV switch settings.

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DETAILS

1. Persons Contacted

Commonwealth Edison Company (CECo)

- *R. L. Bax, Station Manager
- *C. E. Sargent, BWR Operations
- *B. Rybak, Mechanical and Structural Design Superintendent
- *J. Dierbeck, Maintenance Staff Supervisor
- *G. Spedl, Production Superintendent
- *A. Misak, Regulatory Assurance Supervisor
- *G. Tietz, Technical Superintendent
- *R. Ungeran, MOV Administrator
- *H. Mulderink, BWR MOV Coordinator
- *T. Tamlyn, Site Project Manager
- *D. Thayer, Nuclear Safety Engineer
- *F. Geiger, Projects
- *M. Pacilio, Master Electrician
- *J. Arnold, MOV Coordinator
- *D. Kanakores, Regulatory Assurance NRC Coordinator
- *A. Lintakas, Systems Design Engineer
- *J. Binkhead, Nuclear Quality Programs Inspector
- *B. Smith, LaSalle MOV Coordinator
- *W. Cote, Braidwood MOV Coordinator
- *D. Gibson, Conduct of Maintenance Coordinator
- *J. Fish, Master Mechanic
- *J. Thorpe, Senior Consultant, UESC

U. S. Nuclear Regulatory Commission (NRC)

- *M. Ring, Chief, Engineering Branch, Region III
- *B. Burgess, Chief, Projects Section 1B, Region III
- *J. Jacobson, Chief, Materials and Processes Section,
Region III
- *T. Taylor, Senior Resident Inspector, Quad Cities

*Denotes those attending the exit meeting on December 19, 1991.

2. Licensee Action on Previous Inspection Findings

(Closed) Violation 50-254/90010-01(DRS): Failure to take corrective action to correct a deficiency in 1/2 Emergency Diesel Generator Cooling Water Pump. The licensee responded to the violation by letter dated October 12, 1990. The letter contained the licensee's corrective actions to address the deficiency and was reviewed and determined to be acceptable by Region III. The NRC inspectors reviewed the actions taken by the licensee as committed to in the October 12, 1990 letter to the NRC. Corrective actions

taken by the licensee were completed except for a rebaseline of the Updated Final Safety Analysis Report (UFSAR), which is scheduled for completion by March 1992. The licensee was progressing towards completing the rebaseline. This item is closed.

3. Licensee Event Report (LER) Review (92700)

(Closed) LER 254/90021-LL: Residual Heat Removal (RHR) Valve 1001-50 Failed to Open Due to Thermal Binding. Through discussions with licensee personnel and review of records, the NRC inspectors reviewed the event report and determined that reportability requirements were fulfilled, that immediate corrective action was accomplished, and that corrective action to prevent recurrence had been or would be accomplished. However, one problem was noted and is discussed in Paragraph 4.c.(1) of this report.

4. Inspection of the Program Developed in Response to Generic Letter 89-10

a. Background

On June 28, 1989, the NRC issued Generic Letter (GL) 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance", which requested addressees to establish a program to ensure that switch settings for Safety-Related Motor-Operated Valves (MOV's) and certain other MOV's in safety-related systems are selected, set and maintained properly.

The NRC inspectors followed Temporary Instruction (TI) 2515/109 (January 14, 1991), "Inspection Requirements for Generic Letter 89-10, Safety-Related Motor-Operated Valve Testing and Surveillance," in performing this inspection. The inspection focused on Part 1 of the TI which involves a review of the program being established by the licensee in response to GL 89-10. The licensee had not progressed sufficiently to perform Part 2 of the TI which involves a review of program implementation.

b. Generic Letter 89-10 Program Review

The NRC inspectors reviewed the licensee commitments to the GL. The licensee submitted their response to the GL to the NRC by letter dated September 28, 1990, and committed to meet the intent of GL 89-10. In addition, the licensee responded to Supplement 3 of GL 89-10 by letters dated December 12, 1990, March 11, 1991, and September 5, 1991.

Quad Cities implemented the CECO corporate level GL 89-10 program. Certain aspects of the Quad Cities program were not addressed during this inspection where the issues were being addressed at the corporate level. Corrections to the corporate program document will be reflected in the implementation of the GL 89-10 program at Quad Cities. Items noted during this inspection are detailed below.

(1) Scope of the Generic Letter Program

The NRC inspectors reviewed and discussed with the licensee the scope of the licensee's GL 89-10 program. There were 196 MOVs in the GL 89-10 program at the Quad Cities Station. The NRC inspectors reviewed system drawings of the High Pressure Coolant Injection (HPCI) System and the Reactor Core Isolation Cooling (RCIC) System as a sample check for the completeness of the scope of the licensee's GL 89-10 program.

Based on the review and the discussions, the NRC inspectors determined that the scope of the licensee's program was consistent with the guidance of CL 89-10.

(2) Design Basis Reviews

The NRC inspectors discussed design basis reviews with licensee personnel and reviewed procedures controlling the performance of design basis reviews for the MOVs in the GL 89-10 program. The results of the areas reviewed by the NRC inspectors are discussed below.

(a) Differential Pressure Requirements

The licensee used several sources to support the design basis reviews. Documents used to determine the maximum expected dp and flow conditions for MOVs in the GL 89-10 program included the UFSAR, Technical Specifications, system descriptions, normal and abnormal operating procedures, valve and operator vendor documents; and other associated documents. The design basis review was performed at the corporate level and the results were used to develop thrust requirements for all MOVs.

The licensee did not review the Emergency Operating Procedures (EOPs) as part of the

design basis review. However, as a result of findings from an inspection at the Dresden Station, the licensee performed a review to determine if the MOV design basis documents generated as part of the GL 89-10 program envelope the EOP scenarios. The result of the review was that the EOP scenarios were enveloped by the MOV design basis documents.

The licensee evaluated valve mispositioning events in their design basis reviews. However, if it was determined that the MOV would not be able to accommodate the dp and flow resulting from a valve mispositioning event, then the licensee's GL 89-10 program would allow the mispositioning scenario to be discarded for less demanding scenarios. The NRC inspectors discussed this issue with the licensee and it was noted that no worst-case dp resulting from mispositioning was discarded for a less demanding dp for MOVs at Quad Cities.

(b) Reduced Voltage Capability

The NRC inspectors evaluated the licensee's methodology for determining the capability of MOVs to achieve the required thrust under degraded voltage conditions. The inspectors reviewed the licensee's procedure for establishing degraded voltage conditions, "Procedure for Performance of Project Task 4, MOV Terminal Voltage Calculations." Degraded voltage conditions at the MOV were considered as part of the design basis review and the results were used as an input to the licensee's thrust calculations. Expected accident ambient temperatures for cables inside and outside containment were evaluated and accounted for in the calculations. The inspectors noted that the licensee did not evaluate the affects of high ambient temperatures on the performance of MOV motors. The licensee indicated that Limatorque is currently performing testing and analysis to address this issue. The licensee committed to incorporate the information resulting from the testing on the affects of high ambient temperatures on MOV motors into the GL 89-10 program when testing data is made available.

The NRC inspectors noted that the licensee did not use the degraded voltage relay setpoint to determine worst case bus voltages. Instead, the "expected" low grid voltage values for each bus based on operational history were used. The licensee did not have operational controls in place to ensure that the grid voltage did not drop below the expected low value without manual initiation of the emergency diesel generators. The inspectors informed the licensee that the use of expected low values in lieu of the degraded voltage relay setpoint was not acceptable. The use of these values allowed for a range of grid voltages which may not permit some MOVs to develop adequate torque required to operate the valve. This finding is consistent with the findings of an Electrical Distribution System Functional Inspection (EDSFI) which was recently conducted at Quad Cities. The licensee has performed a preliminary review of all MOVs in its GL 89-10 testing program to ensure that no immediate operability problem exists. The licensee will perform a more extensive review of this issue in response to the EDSFI. The inspectors informed the licensee that it would be expected that the corrective actions will apply to all CECO nuclear facilities.

The NRC inspectors also noted that the licensee's procedures permitted use of stall torque current in lieu of locked rotor current in its degraded voltage calculations. The inspectors informed the licensee that the GL recommended using locked rotor current; however, the use of stall torque current may be acceptable if it is supported with adequate test data and analysis. The licensee indicated that none of the degraded voltage calculations at the Quad Cities Station used stall torque current rather than locked rotor current.

(c) Completed Design Basis Review

The NRC inspectors reviewed a sample of completed design basis review packages for a sample of MOVs in the HPCI and RCIC systems. The inspectors also discussed the methodology of the design basis review performed by the

licensee for the sampled MOVs.

One discrepancy was noted during the review. The licensee's response dated September 5, 1991, to an NRC request for additional information for GL 89-10, Supplement 3, stated that the maximum system pressure and dp in the opening direction was 1,146 psig for the HPCI steam line isolation valves. The documentation of the completed design basis review for these MOVs indicated that the maximum system pressure and dp in the opening direction was 1,000 psig, contrary to the September 5, 1991 letter to the NRC. The licensee stated that the value that would be used for the maximum system pressure and dp to size the MOV was 1,146 psig. The licensee was also planning to update the design basis review documentation to reflect the correct value of 1,146 psig.

(3) MOV Switch Settings

The NRC inspectors discussed the licensee's process for sizing MOVs and setting of MOV switches with licensee personnel.

Results from the design basis reviews were used to determine the thrust and corresponding torque required to stroke the MOVs. Margins were added to the calculated thrust to account for diagnostic equipment accuracies, degradation of stem lubrication and inertial loading. The maximum allowable thrust was also evaluated to ensure that the available actuator thrust output and structural limits would not be exceeded. A thrust window was developed between the minimum required and maximum available thrust after all accuracy, lubrication degradation and inertial factors were accounted for.

For some MOVs, a stem friction factor of less than .2 was used to calculate the thrust window. The NRC inspectors advised the licensee that a stem factor of less than .2 may not be conservative. The licensee stated that use of less than a .2 stem friction factor for calculating thrust windows would be justified. A test program to justify lower stem friction factors was planned.

During the review of the licensee's thrust window methodology, the NRC inspectors noted a

discrepancy between the stem factor recorded for use in the calculations and the actual value used in calculations. The error was due to the lack of more rigorous procedural guidance for calculating thrust windows. When the required thrusts (for open and close) and thrust window were calculated, a determination was made to ensure that the desired thrust window was adequate. Where the modifications were necessary to achieve the desired thrust window, discussions between CECo corporate engineering personnel and the contractor performing the calculations was necessary. This interface activity was not well defined and resulted in the incorrect stem factor previously mentioned. This was considered a weakness. The licensee was planning to develop a design guide or another type of procedural guidance to define the interface activities for calculating MOV thrust windows.

(4) Design Basis Differential Pressure and Flow Testing

The NRC inspectors reviewed the licensee's program and discussed, with plant and corporate personnel, the licensee's method of demonstrating the capability of MOVs within the generic letter program with plant and corporate personnel.

The licensee indicated that testing of MOVs would not be performed where a dp of less than 80% of the design basis dp was attainable because of the limited value of the information obtained. The NRC inspectors informed the licensee that this position was not consistent with the "two stage approach," defined in the GL, and was not acceptable.

The licensee was planning to submit their guidelines for dp testing of MOVs to the NRC for review. This is considered an unresolved item pending further review of this issue by NRR (50-254/91022-01(DRS); 50-265/91018-01(DRS)).

(5) Periodic Verification of MOV Capability

The licensee's plan for ensuring that adequate MOV switch settings were established and maintained throughout the life of the plant includes static diagnostic testing of MOVs on an interval that will be determined once the initial stages of the GL 89-10 program are completed. The period

recommended by GL 89-10 is every third refueling outage. The NRC inspectors cautioned the licensee that static testing was not currently an acceptable method to periodically ensure the operability of MOVs. Uncertainties in the relationship between the performance of MOVs under static and design basis dp and flow conditions has not been established. The licensee plans to repeat dp testing if the MOV is replaced, modified or overhauled to the extent that the previous dp test results would not be representative. Dp testing would also be performed for any MOV that was not previously dp tested with diagnostic equipment.

(6) MOV Failures, Corrective Actions and Trending

In recommended action "h" of the generic letter, the NRC requested that licensees analyze or justify each MOV failure and corrective action. The documentation should include the results and history of each as-found deteriorated condition, malfunction, test, inspection, analysis, repair, or alteration. All documentation should be retained and reported in accordance with plant requirements. It was also suggested that the material be periodically examined (every 2 years or after each refueling outage) as part of the monitoring and feedback effort to establish trends of MOV operability. These trends could provide the basis for a licensee revision of the frequency to periodically verify adequate MOV capability. The generic letter indicated that a well-structured and component oriented system would be necessary to track, capture, and share equipment history data.

The NRC review found that the licensee had evaluated MOV failures for the root cause and maintained adequate MOV histories. The trending data described in the licensee's GL 89-10 program was recorded and available for retrieval when necessary. CECO corporate engineering was also developing additional guidelines for tracking and trending of MOV related information.

DP testing had not yet begun at Quad Cities. Guidelines for analysis of dp testing data were being developed. The schedule for completion was prior to the start of dp testing.

(7) Schedule

In GL 89-10, the NRC requested that licensees complete all design basis reviews, analyses, verifications, tests, and inspections that were initiated in order to satisfy the recommended actions by June 28, 1994, or three refueling outages after December 28, 1989, whichever was later.

The licensee committed to implementation of all GL 89-10 actions by the end of the fifth refueling outage beginning with the Spring 1991 outages. This schedule appeared to be adequate based on what was thought to be an aggressive dp and flow testing program by CECO. However, as noted in Paragraph 3.b.(4), dp and flow testing is not planned for MOVs where at least 10% of design basis dp and flow can not be achieved. Therefore, the licensee's dp and flow testing program may not be as aggressive as was originally thought by the NRC. The licensee's implementation schedule for GL 89-10 will be reviewed by NRR to determine if it is acceptable based on this new information.

c. Associated Programmatic Reviews

The NRC inspectors reviewed other licensee programs associated with MOVs.

(1) Design Control for Thermal Overload Protection

The NRC inspectors reviewed Bechtel procedure 20897-004-EP-003, "Procedure for Performance of Project Task 4, MOV Thermal Overload Review." The procedure provided for consideration of thermal overload (TOL) actuation time under circumstances in which: (1) the motor draws locked rotor current; (2) the motor draws twice the running torque current; and (3) the motor draws full load current. The procedure resembles IEEE standard 741-1990 in its approach and appeared to be acceptable.

The NRC inspectors reviewed LER 90-021 (RHR Valve 1001-50 Failed to Open Due to Thermal Binding). The inspectors noted that the TOLs on MOV 1-1001-50 tripped and the MOV failed to open due to a combination of thermal binding of the valve and hydraulic lock of the actuator spring-pack. During the event, plant personnel repeatedly reset the motor control center (MCC) breaker and tried

to reposition the valve. The motor was subsequently damaged beyond repair due to overheating. The inspectors cautioned the licensee that TOL heaters cooldown much faster than the MOV motor windings and that the TOLs would not protect the MOV motors if they were repeatedly challenged in a short time frame. Furthermore, The inspectors recommended including MOV TOL characteristics into operator training classes to preclude the overheating of MOV motors in the future. The licensee indicated that it was quantifying acceptable TOL trip waiting periods and would incorporate this information into its training program.

The repeated resetting of the TOLs was a violation of 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings," which states "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions." Quad Cities plant procedure QAP 300-2, "Conduct of Shift Operations," Section C.25 requires that certain steps be taken to determine operability. The steps in the procedure only allowed for two attempts to operate the MOV. If more than two attempts could not be performed without damaging the equipment, the equipment was to be declared inoperable.

Contrary to the above, the licensee did not follow the above procedure and reset the MCC breaker, which tripped due to TOL tripping at least four times during the course of the event. The MCC breaker associated with the MOV was reset three additional times without assessing the possibility of damage to the equipment. This violation is not being cited because the criteria specified in Section V.G of the NRC Enforcement Policy were satisfied (Non-Cited Violation (NCV) 50-254/91022-02).

(2) MCV Setpoint Control

The NRC inspectors reviewed licensee documents QEMP 600-1 (Electrical Maintenance of Safety Related and Nonsafety Related Motor Operated Valves), QCEM 600-8 (Safety Related Motor Operated Valves Data and Settings), and QAP 400-17 (Equipment Setpoint Change) to evaluate the

licensee's MOV setpoint control program. No work was permitted to be done on any MOV without a work request. The licensee requires formal review and approval of all changes to limit switch settings, torque switch settings, and thermal overloads. The licensee recorded as-found and as-left torque switch and limit switch settings. Torque switch settings were compared to acceptable limits that were documented for each MOV. The licensee's MOV setpoint control program appeared to be acceptable.

(3) Maintenance

Scheduling of maintenance work at Quad Cities was done through the Total Job Management (TJM) computer system. Preventive Maintenance (PM) procedures were established in accordance with applicable vendor recommendations, equipment operating history, and industry experience. The licensee's nominal PM frequency was 36 months, assuming degradation of the stem factor to a value not greater than 0.2, or 18 months assuming degradation of the stem factor to a value not greater than 0.17. The NRC inspectors noted that the Limitorque recommended frequency for stem Lubrication was 18 months, using a stem factor of 0.2. The licensee indicated that it would consider performing static diagnostic testing to show that the actual stem factors had not degraded to values greater than those used over the specified maintenance periods. The inspectors informed the licensee that static diagnostic testing may not be acceptable due to uncertainties in the relationship between the performance of MOVs under static and design basis conditions.

The NRC inspectors reviewed the licensee's position in the area of valve stem packing adjustments. The licensee's practice was to adjust packing nut torque to the prescribed value then perform a motor current signature test. The inspectors cautioned the licensee that changing power requirements may not adequately be detected from motor current analysis due to a changing power factor - large changes in thrust requirements due to packing adjustments may result in only small changes in motor current. The licensee indicated that it planned to perform extensive diagnostic testing with its VOTES diagnostic system before and after packing adjustments, during the next outage, to evaluate

the affects of packing adjustments on thrust.

(4) Training

The NRC inspectors reviewed the training provided by the licensee to personnel performing work associated with the implementation of the Quad Cities MOV program. The licensee has made a significant commitment to training. The training facilities were excellent, the courses appeared to be thorough, and the instructors appeared to be competent. The training program largely parallels those previously reviewed at Byron and Dresden, including the corporate position of providing generic training at the Production Training Center located near the Braidwood Station. The training program for MOVs at Quad Cities was considered a strength.

(5) Operating Experience and Vendor Notification

The NRC inspectors reviewed applicable procedures and discussed the process for handling various information notices from different sources. Plant procedures QCAP 450-1 through 450-3 (Vendor Equipment Technical Information Program) controls the evaluation of industry information and experience from sources such as the Nuclear Regulatory Commission, Institute of Nuclear Power Operations, General Electric, Limitorque and other vendors. The licensee has taken steps to ensure that information received was screened and evaluated by appropriate organizations and that appropriate actions were planned. The licensee aggressively pursues vendor information and obtains documentation in a timely manner. The inspectors confirmed the effectiveness of the existing system by searching for eight known vendor information releases distributed to industry. The licensee recovered all the identified documents. The inspectors found the licensee's program for the processing and control of operating experience and vendor notifications to be acceptable.

(6) Diagnosics

The licensee uses VOTES diagnostic equipment to test its MOVs under both static and dynamic conditions. The licensee plans to incorporate the use of a "thrust measuring device" with its existing equipment to allow the measurement of

spring pack displacement as well as thrust delivered to the valve. This will allow the quantification of actual valve and stem factors during testing.

(7) Walkdown

The NRC inspectors conducted a walkdown of RHR valves. The actuators appeared to be in good condition and no specific problems were found during the walkdown.

5. Licensee Documents Reviewed

The following documents were reviewed by the inspectors during this inspection:

- * Generic Letter 89-10 Program Document, Revision 1, dated October 15, 1991.
- * Generic Letter 89-10 Program Document-Supplement 2, Revision 0, dated October 15, 1991.
- * Procedure for Performance of Project Task 2-Design Basis Activities, 20897-002-MP-01, Revision 2, dated August 19, 1991.
- * Procedure for Performance of Project Task 4-MOV Terminal Voltage Calculations, 20897-004-EP-001, Revision 2, dated March 18, 1991.
- * Procedure for Performance of Project Task 4-MOV Thermal Overload Review, 20897-004-EP-003, Revision 1, dated April 5, 1991.
- * Procedure for Performance of Project Task 5-MOV Database and MOV Package Development, 20897-005-MP-001, Revision 0, dated January 24, 1991.
- * Thrust Window Calculation for Motor Operated Valves, 20897-004-M-EP-1, Revision 1, dated January 18, 1991.
- * Reactor Core Isolation Cooling MOV Differential Pressure Calculations, 20897-002-MO30, Revision 3, dated November 7, 1991.
- * Quad 1-MOV Terminal Voltage Calculations, 20897-004-E-003-1301, Revision 4, dated November 27, 1991.
- * Quad 2-MOV Terminal Voltage Calculations, 20897-004-E-005-2301, Revision 5, dated November 27, 1991.

- High Pressure Coolant Injection MOV Differential Pressure Calculation, 20897-002-MO26, Revision 4, dated June 14, 1991.
- MOV Design Basis Document No. 20897-DB-QDC-1301, Revision 3, dated November 7, 1991.
- MOV Design Basis Document No. 20897-DB-QDC-2301, Revision 1, dated April 5, 1991.
- Guidelines for MOV Testing, Maintenance and Evaluation, NO Directive NOD-MA.1, Revision 2, dated September 1990.
- Vendor Equipment Technical Information Program, QCAP 450-1, Revision 1, dated July 17, 1991.
- Vendor Equipment Technical Information Review, QCAP 450-3, Revision 1, dated July 17, 1991.
- Vendor Equipment Technical Raw Data Files, QCAP 450-2, Revision 1, dated July 17, 1991.
- MOV Trouble Shooting and Root Cause Matrix for SMB-000/00 Size Operators and Their Valves, QAP 500-22, Revision 1, dated February 1990.
- Equipment Setpoint Change, QAP 400-1, Revision 3, dated July 1989.
- Safety Related Motor Operated Valves Data and Settings, QCEM 600-8, Revision 0, dated August 27, 1991.
- Electrical Maintenance of Safety Related : Non-Safety Related Motor Operated Valves, QEMP 600-1, Revision 10, dated June 28, 1991.
- Installation of "VOTES" Sensor on Limitorque Motor Operated Valve, QEMP 600-9, Revision 2, dated January 2, 1990.
- Licensee Event Report 90-021, Residual Heat Removal Valve 1001-50 Failed to Open Due to Thermal Binding, Revision 2, dated July 9, 1991.
- Conduct of Shift Operations, QAP 300-2, Revision 31, dated September 21, 1991.

6. Conclusions

The licensee was actively pursuing the development of its program in response to GL 89-10. Some areas of the program were nearly complete but the dp and flow testing had not started (the major portion of the GL 89-10 program). The NRC inspectors were unable to complete the program review for GL 89-10 due to open issues which must be resolved. The results of the inspection were discussed with cognizant NRC headquarters personnel. Future inspections will be performed to determine the acceptability of the licensee's program and to evaluate the implementation of the GL 89-10 program.

7. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. An unresolved item disclosed during this inspection is discussed in Paragraph 4.b.(4) of this report.

8. Exit Meeting

The inspectors met with the licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on December 19, 1991. The inspectors summarized the purpose and scope of the inspection and the findings. The inspectors informed the licensee of the one non-cited violation identified during this inspection (failure to follow procedures). The inspectors also discussed the likely inferential content of the inspection report with regard to documents or processes reviewed by the inspectors during the inspection. The licensee did not identify any such documents or processes as proprietary.