



UNITED STATES
 NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA STREET, N.W., SUITE 2900
 ATLANTA, GEORGIA 30323-0199

Report Nos.: 50-269/94-15, 50-270/94-15 and 50-287/94-15

Licensee: Duke Power Company
 422 South Church Street
 Charlotte, NC 28242

Docket Nos.: 50-269, 50-270, and 50-287

License Nos.: DPR-38, DPR-47,
 and DPR-55

Facility Name: Oconee Nuclear Station Units 1, 2 and 3

Inspection Conducted: June 20-24, 1994

Inspector: M. D. Hunt
 M. D. Hunt

7/25/94
 Date Signed

Accompanying Personnel: M. N. Miller
 R. Cain, Consultant, INEL

Approved by: C. A. Casto
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 Test Programs Section
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8/3/94
 Date Signed

SUMMARY

Scope:

This special, announced inspection was performed at the Oconee Nuclear Plant to examine the implementation of the licensee's motor-operated valve (MOV) program to meet commitments in response to Generic Letter (GL) 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance." The inspectors utilized the guidance provided in Temporary Instruction (TI) 2515/109 (Part 2), "Inspection Requirements for Generic Letter 89-10, Safety-Related Motor-Operated Valve Testing and Surveillance." As delineated in Part 2 of TI 2515/109, this inspection was the initial review of the Licensee's MOV program implementation in response to GL 89-10.

The inspectors reviewed six MOVs in detail including selected portions of design calculations, test packages, and diagnostic signature traces. Certain other MOVs were reviewed and are identified in this report. The inspectors

also reviewed followup issues from the previous NRC inspection of the MOV program (TI 2515/109, Part 1) conducted in June 24-28, 1991, and documented in NRC Inspection Report No. 50-269/270/287/91-13.

Results:

Based on the evaluation completed during this inspection, the inspectors' concluded that the licensee was implementing an acceptable MOV program. However, at this point it appears because of their dynamic testing schedule the licensee may not meet the scheduled date for completion of the GL 89-10 program. (Section 2.6)

The licensee purchased a torque/thrust test stand to verify valve actuator torque and trust. This device is a positive contribution to the licensee's MOV program. (Section 2.2)

One violation for an inadequate procedure was identified and is listed below;

Inadequate Procedure Preparation for Inservice Inspection (ISI) Testing
(Section 2.3)

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- #*K. Beasley, Valve Engineering
- *S. Benesole, Regulatory Compliance Manager
- *T. Cline, Valve Engineering, General Office
- #*J. Davis, Engineering Manager
- *B. Dolan, Safety Assessment
- *N. Estep, 89-10 Program Manager, General Office
- *T. Grant, Electrical Systems
- *J. Hampton, Site Vice President
- *D. King, Valve Engineering
- *R. Kellahan, Secondary Systems Engineering
- #*K. Matthews, Valve Engineering
- *G. McAninch, Mechanical Systems
- *S. Nader, Primary Systems Engineering Supervisor
- *D. Nix, Regulatory Compliance
- *R. Oakley, Primary Systems Engineering
- *J. Peele, Station Manager
- #*C. Tompkins, Valve Engineering Supervisor

Other licensee employees contacted during this inspection included engineers, operators, mechanics, security force members, technicians, and administrative personnel.

NRC Resident Inspector(s)

- *Paul Harmon, Senior Resident Inspector
- G. Humphrey, Resident Inspector

*Attended exit interview on June 23, 1994

#Attended final exit interview on June 24, 1994

Acronyms and initialisms used throughout this report are listed in the last paragraph.

2.0 GENERIC LETTER (GL) 89-10 "SAFETY-RELATED MOTOR-OPERATED VALVE [MOV] TESTING AND SURVEILLANCE" (2515/109)

On June 28, 1989, the NRC issued GL 89-10, which requested licensees and construction permit holders to establish a program to ensure that switch settings for safety-related MOVs were selected, set, and maintained properly. Subsequently, six supplements to the GL have been issued. NRC inspections of licensee actions implementing commitments to GL 89-10 and its supplements have been conducted based on guidance provided in Temporary Instruction (TI) 2515/109, "Inspection Requirements for Generic Letter 89-10, Safety-Related Motor-Operated Valve Testing and Surveillance." TI 2515/109 is divided into Part 1, "Program Review," and Part 2, "Verification of Program Implementation."

This current inspection is the TI 2515/109 Part 2 program implementation inspection. The TI 2515/109 Part 1 program review inspection for Oconee was conducted June 24-28, 1991, and was documented in NRC Inspection Report 50-269/270/287/91-13, dated August 5, 1991.

The principal focus of this current inspection was to evaluate, in depth, the implementation of GL 89-10 for a sample of MOVs selected from the licensee's program. The MOV sample was chosen from a list of valves that had received differential pressure (DP) testing. The majority of the valves selected were gate valves with high design-basis DP (DBDP) operating requirements. The MOVs in the sample were as follows:

<u>Valve No.</u>	<u>MOV Function, Size, and Type</u>
1-FDW-33	1A Once Through Steam Generator (OTSG) Block Valve 6 inch gate - Crane Aloyco - Limitorque Actuator
1-HP-26	Reactor Coolant Loop 1A High Pressure Injection Valve 4 inch globe - Rockwell - Limitorque Actuator
1-MS-84	Main Steam Line B To Emergency Feedwater Turbine Valve 6 inch gate - Crane - Limitorque Actuator
2-FDW-347	2B Steam/Generator Inlet Block On Emergency Header Valve 6 inch gate - Borg-Warner - Rotork Actuator
3-HP-410	3A Emergency High Pressure Injection Crossover Valve 4 inch globe - Anchor Darling - Rotork Actuator
3-LP-17	3A Low Pressure Injection Loop To Reactor Building Isolation Valve 10 inch gate - Anchor Darling - Rotork Actuator

This inspection also evaluated the licensee's action taken to address concerns identified in the Part 1 inspection.

Based on the evaluation completed during this inspection, the inspectors concluded that the licensee was implementing an acceptable MOV program in response to GL 89-10. Additional NRC review is planned to complete the evaluation of some areas and to address specific findings identified during this inspection. Details of the inspection and the findings are provided in the following sections of this report.

2.1 Design-Basis Reviews

The inspectors reviewed the licensee's design-basis documentation (DBD) to determine and verify its adequacy for the MOVs examined during this inspection. The recommended action "a" of GL 89-10 that requested licensees determine the maximum differential pressures and flows expected for both normal and abnormal (accident) conditions was examined to verify maximum parameters were used. In addition, follow-up reviews were performed to determine if changes to the design-basis were

implemented to address concerns identified during the GL 89-10 Part 1 inspection. That inspection identified several design-basis concerns related to 1) Design Basis Review Guidelines were not clear regarding design factors such as flow and temperature; 2) the effects of high ambient temperature on motor torque had not been accounted for; 3) the ambient temperature had not been considered in the selection of motor thermal overload devices; and 4) the electrical calculations to determine motor terminal voltages for all the MOV were not completed. These follow-up concerns are discussed later in this section.

The inspectors reviewed the licensee's design-basis differential pressure calculations and their referenced documentation together with applicable system flow drawings, pump curves, system description procedures, and verified that the maximum flow and differential pressure were determined. The calculations for differential pressure, electrical degraded grid voltage, flow, and temperature effects on cable were reviewed and verified to be complete and correct. Calculations of thrust and torque were verified to use appropriate inputs of design DP and degraded voltage capabilities.

The inspectors verified that the licensee had updated the electrical and design-basis calculations to meet the recommendations in GL 89-10. The design-basis calculations included the differential pressure, flow and temperature parameters. The electrical under-voltage calculations for Units 1, 2 and 3, OSC-4581, OSC-4582, and OSC-4583, all Revision 1, had been completed to include the terminal voltages for all MOVs. However, calculations OSC-4581 and OSC-4582 were not upgraded to the format used for OSC-4583 to make the calculations more readable. The licensee developed electrical calculation OSC-5558, "Process Used in Responding to PIP MSE 0-093-0744 (Limitorque Technical Update 93-03 Affecting GL 89-10 MOVs), Revision 0, that addressed the high temperature effects on motor torque. The MOV sizing calculations have been or are being revised to include elevated temperature effects. For Unit 3, sizing calculation OSC-5599 was revised. For Unit 1, sizing calculation OSC-5674 was in the process of being revised. For Unit 2, the licensee plans to revise the sizing calculation for the upcoming outage. The licensee's position concerning thermal overloads was that overloads are sized conservatively to protect the cables. This allows the MOVs to have more of an opportunity to complete their intended safety function without the overloads tripping the motors.

During the design-basis review of the Main Steam System MOVs MS-24, MS-33, MS-82, and MS-84, in each of the three units, the inspectors were concerned with the low closing differential pressure requirement of 400 psid. Initially a design-basis closing differential pressure of 1050 psid was specified. The licensee then determined that a need existed to reduce the closing DP from 1050 psid to 700 psid. Currently, the design-basis calculations OSC-4363, Revision 5 and OSC-4374, Revision 4 state that "a need had arisen ... to reduce this closing DP to 400 psid." As a consequence of the reduced closing DP for the Main Steam MOVs, the resident NRC inspectors had identified a safety concern

related to a potential steam line break blowing down both steam generators. MS-24 and MS-33 isolate the two main steam headers from the common line to the auxiliary steam header. MS-82 and MS-84 isolate the Emergency Feedwater Pump Turbine from the two main steam headers. These MOVs are cross connected and are normally in the open position. A line break in either main steam header would allow both steam generators to blow down before the MOVs could close. The resident inspector staff continues to evaluate this condition.

The NRC conducted a Service Water Inspection November 1 through December 14, 1993, that was documented in NRC Report 50-269/270/287/93-25. One of the findings during that inspection concerned the single failure of the MOV isolating the Low Pressure Service Water System (LPSW) seismic piping in the turbine building (LPSW-139). The proper functioning of this valve is important, since it serves as a single point in the licensee's design for isolating the non-seismic turbine building line from the seismic portion of the LPSW system. The inspectors reviewed the licensee's design-basis documentation and torque calculations for LPSW-139 to determine if there was adequate torque to close the valve. In addition, a walkdown inspection was conducted to examine the location and installation of the valve. Based on the review of the design-basis documentation and torque calculations, the inspectors found that an immediate operability concern did not exist regarding MOV LPSW-139. However, this valve has a small thrust margin and the licensee will need to complete its verification of the design-basis capability of this MOV as part of closure of its GL 89-10 program. The licensee has indicated that the actuator will be replaced with a larger actuator to improve the available thrust margin.

The inspectors concluded the licensee was in the process of implementing the recommendations of GL 89-10 for design-basis reviews.

2.2 MOV Sizing and Switch Setting

The inspectors reviewed Duke Power System (DPS), Oconee NRC Generic Letter 89-10 Program DPS-1205.19-00-0002, "Guideline for Performing Motor Operated Valve Reviews and Calculations," Revision 2, dated April 20, 1992, for the selected valves. The licensee's guideline specified the use of the industry standard thrust equations for gate and globe valves. The licensee used a valve factor (VF) of 0.50 for flex and solid wedge gate valves and 0.3 for parallel disc gate valves. A valve factor of 1.10 was used for globe valves. The licensee used data provided by the valve vendor, where available, if the VF data supplied was greater than the assumptions stated above. The valve mean seat diameter was used to calculate the valve seat disc seat area if available from the manufacturer. Otherwise, the valve orifice diameter was used. The licensee assumed a stem friction coefficient of 0.15 in determining the actuator output thrust capability.

The minimum required thrust, calculated using the above factors, was adjusted by adding a 15% margin to account for variations in valve factor, potential load sensitive behavior (also known as "rate-of-loading"), and other phenomena.

However, the added 15% margin had no specific area of application, and could result in an insufficient amount of margin under certain conditions. If a valve torque switch could not be set within the calculated window, then this 15% margin could be reduced, or completely removed, to enlarge the calculated window. For valves which are dynamically tested, the valve factor, stem friction coefficient, and load sensitive behavior can be quantified and the valve margin can be calculated. However, for valves which will not be dynamically tested, a specified margin should be set aside for each unknown which cannot be quantified or justified. The licensee has already encountered load sensitive behavior effects as high as 30% on some valves. This would indicate that the 15% margin set aside for load sensitive behavior, valve factor variations, etc., may not be sufficient.

Additionally, Engineering calculation OSC-5558 incorporated the Liberty Technologies update on torque correction factors which identified 57 valves needing evaluation. Of the valves identified, 13 valves had to have some of the unspecified 15% margin (described earlier) removed to maintain a 5% calculational thrust margin or a 10% differential pressure test thrust margin. The licensee's application of the 15% margin for uncertainties for those MOVs not dynamically tested will be reviewed later by the NRC.

Aside from the 15% margin, the licensee's program included a 10% margin to adjust the minimum and maximum thrust limits for diagnostic inaccuracies and torque switch repeatability.

During the static test of a valve, the licensee evaluates whether the originally assumed 10% margin is sufficient based on calibration data. If not sufficient, the licensee adjusts the minimum and maximum thrust limits using increased inaccuracy values. A torque switch repeatability of 5% or 10% was being included with the diagnostic inaccuracies. The licensee did not have any MOVs which required a torque switch repeatability value of 20%.

The licensee was developing a methodology for determining valve specific torque switch repeatability. Each valve was statically stroked 3 times to verify torque switch repeatability. The data from this testing was still preliminary. The licensee justification for using this statistical analysis as an alternative method instead of using the published guidance from Limitorque will require further review by the NRC prior closure of GL 89-10.

To ensure torque limits had not been exceeded, the licensee used several methods to account for actuator torque output. In some cases, an LVDT was used during testing to measure spring pack displacement which was then converted to torque. If this could not be used, the licensee used

published spring pack curves which were verified through use of a spring pack tester. The licensee had recently purchased a torque/thrust test stand developed by Kalsi Engineering. The licensee plans to use the stand on actuators as they replace and/or undergo maintenance to verify actuator torque and thrust. The stand is also capable of reduced voltages to quantify motor capabilities at undervoltage conditions. The inspectors considered this to be a positive addition to the ONS GL 89-10 program.

The inspectors concluded that the licensee was in the process of implementing the recommendations of GL 89-10 for MOV sizing and switch settings.

2.3 Design Basis Capability

The inspectors reviewed the licensee's static and dynamic test data for the selected valves. The licensee had not completed static testing for all their GL 89-10 valves (337). However, the licensee had planned to have all static testing completed by October 1994 (GL 89-10 scheduled completion date) with the exception of 2 butterfly valves which are scheduled to be replaced. The licensee had divided the MOVs into Groups I and II based on their safety significance. The licensee had completed differential pressure testing for 50% of Group I valves and 40% of Group II valves, for a total of 48% of all valves in the program. However, it was clear to the inspectors that there was a great deal of work to be finished prior to the completion of ONS's GL 89-10 program. This included items such as: justifications for MOVs to be removed; completion and justification for valves that will be tested off-site; justification for MOVs to be excluded from the program based on low differential pressures; and other items. Based on these observations, the inspectors questioned whether the licensee would be finished by their scheduled completion date of October 1994.

The licensee was performing DP tests at approximately 80% of rated DP, or greater, and at or near design temperature and flow, if possible. Information from the DP test was then used to back calculate the valve factor at flow isolation and hard seat contact. From review of the diagnostic thrust traces the inspectors considered the licensee's selection of flow isolation to be reasonable and to approximate the point of initial wedging. Load sensitive behavior was also quantified. The "new" back calculated valve factors were then inserted into a calculation for extrapolation to 100% differential pressure, if needed. The load sensitive behavior effect was added into the completed calculation if the effect was negative (reducing the output thrust). This "new" calculated thrust, one for flow isolation and one for hard seat contact was then compared to control switch trip (CST) to assess margin. Further, the new calculation was compared to the old calculation to compare margin. A 5% or less calculation margin or a 10% or less CST margin required the MOV engineers to further evaluate the MOV prior to declaring the MOV operable. The licensee completed the differential pressure test summary prior to declaring the valve operable. The valve may be returned to service for flow isolation,

e.g., as in an outage, but a decision on operability was required prior to changing plant modes. The inspectors found this appropriate. The licensee was not using test data to determine stem friction coefficients. The licensee used a band of stem factor coefficients (0.10, 0.12, 0.15, and 0.20) and calculated stem factors based on these stem friction coefficients. These stem factors were used to calculate torque from the thrust at CST and maximum thrust. These torque values were then compared to actuator rated torque and motor torque capability at undervoltage conditions. Although the licensee used a band of stem friction coefficients that bounded their assumption of 0.15, the information was available to back calculate the actual stem friction coefficient. The justification of assumptions is considered an important part of the GL 89-10 program and will require further NRC review.

To determine the operability of an MOV, the licensee linearly extrapolated the thrust necessary to overcome DP to design basis conditions. The licensee's justification for using the method of extrapolation will require further NRC review prior to closure of the GL 89-10 program.

The licensee had 12 uninstrumented MOVs which had been full flow and differential pressure tested. These tests were uninstrumented because the diagnostic equipment could not be effectively mounted on the valve yoke. These tests determined that the MOVs were operable when tested, but did not provide diagnostic measurements which could be used at a later date for determination of degradation. Therefore, when these valves undergo periodic verification, a full flow, full differential pressure test may be necessary to confirm design-basis capability. The licensee intends to develop a justification for these tests. This justification will require further NRC reviewed prior to closure of the GL 89-10 program.

The inspectors found errors in the differential pressure summary for valve LMS-84. A typographical error was found that transposed the calculated differential pressure at hard seat contact with the calculated differential pressure at flow isolation. This error did not pose an operability problem; however, it illustrated the need for a careful review of the data. Another error was found in the LMS-84 package where the maximum as left thrust was compared with the maximum allowed actuator thrust. This comparison indicated an overthrust condition which was less than 162%. Even though the licensee is a member of the Kalsi study, they recommended reducing the torque switch setting at the next available opportunity. Following the differential pressure test, the diagnostic instrument accuracies were recalculated and the maximum allowed actuator thrust limit adjusted. The revised maximum allowed actuator thrust limit now placed the MOV above the 162% overthrust limit but less than the 200% overthrust limit. The inspectors did not find the valve inoperable; however, the MOV was in a condition where the operating strokes needed to be accounted for until

the torque switch setting was reduced. In these instances the licensee missed several calculational details that did not impact operability, but did cause at least one unnecessary temporary condition.

On June 21, 1994, as Unit 1 was being returned to service and in the heat-up process, Pressure Test No. 11HN-169, was to be performed to pressure test the piping between 1LP-103 to 1LP-104 under Work Request No. 94013014. This test was a 10 year ISI test of the section of piping between these valves which are off the cold leg and discharge into the containment building emergency sump. The Test Procedure MP/O/A/1720/016, System/Component Pressure Test Controlling Procedure was the document that controlled the test and contained instructions for the test. The work request contained special instructions requiring the test be performed prior to 300°F and at a pressure as high as could be attained without exceeding that temperature. The valve had been calculated and set up to operate at a DP of 400 psid. The inspectors determined that the test procedure was inadequate. The instructions did not specify the maximum operating pressure for the test.

When the testers tried to open 1LP-103, the actuator motor was damaged and possibly the valve internals. The measured cold leg pressure was recorded at 770 psi. The licensee suspected that the 300°F had been exceeded causing thermal binding of the valve. The valve was opened manually and closed manually. After contacting the NSSS vendor for an evaluation to continue the start up with 1LP-103 closed and the motor inoperative, the licensee has taken steps to remove both of these valves from the GL 89-10 Program. The procedure did not adequately address all the necessary parameters for conducting the test as required by Duke quality assurance procedures.

10 CFR Part 50, Criterion V, as implemented by the licensee's Quality Assurance Program requires documented instructions for testing be appropriate for the circumstances. This item is identified as Violation 269/94-13-01, Inadequate Procedure Preparation for ISI Testing. The above example indicates that the licensee needs to place further emphasis on the review of their work to ensure that it is error free. Without explicit requirements for operating pressure, the test instructions did not preclude valve damage.

The inspectors concluded that the licensee was in the process of implementing the recommendations of GL 89-10 for design-basis capability except where noted. However, further NRC evaluation will be required in this area prior to closure of GL 89-10.

2.4 Periodic Verification of MOV Capability

Recommended action "d" of the generic letter requests the preparation or revision of procedures to ensure that adequate MOV switch settings are determined and maintained throughout the life of the plant. Section "j" of the generic letter recommends surveillance to confirm the adequacy of the settings. The interval of the surveillance was to be based on the

safety importance of the MOV as well as its maintenance and performance history, but was recommended not to exceed five years or three refueling outages. Further, GL 89-10 recommended that the capability of the MOV be verified if the MOV was replaced, modified, or overhauled to an extent that the existing test results are not representative of the MOV.

Section 6.1.4 of the Duke Power 89-10 Program states that MOVs in the Group I category will be tested once every 3 RFOs or 5 years and the Group II MOVs will be tested every 6 RFOs or 8 years. Justification for this schedule for periodic testing will require further NRC review prior to closure of GL 89-10.

2.5 MOV Failures, Corrective Actions, and Trending

The licensee performed trending as part of the Problem Investigation Process (PIP). All MOV failures or problems are processed through the PIP which contains the necessary codes and categories to trend the MOV deficiencies. The inspectors reviewed the PIP process and observed several different categories of trending conditions which involved MOVs. The program appears to be adequate and able to provide the necessary information if entered to support the GL 89-10 recommendations.

2.6 Schedule

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

It appeared that the licensee would not complete MOV testing by October 1994 as scheduled. They were advised that prior to submitting an extension request, justification for valves not tested, prototype tested, non-instrumented tested and etc. should be addressed.

2.7 Pressure Locking and Thermal Binding

The NRC Office for Analysis and Evaluation of Operational Data has completed a study of pressure locking and thermal binding of gate valves. It concluded that licensees have not taken sufficient action to provide assurance that pressure locking and thermal binding will not prevent a gate valve from performing its safety function. The NRC regulations require that licensees design safety-related systems to provide assurance that those systems can perform their safety functions. In GL 89-10, the staff requested licensees to review the design basis of their safety-related MOVs.

The licensee has initiated a program to address thermal binding and pressure locking. The "Duke Power Company Guideline For Performing Thermal Binding And Pressure Locking Review" plan was approved September 27, 1993. The Phase I objective of the plan was to describe a method to identify GL 89-10 Program gate valves required to open. The

plan also presented guidelines for corrective action. The plan specified that the Problem Investigation Process (PIP) will be utilized to initiate the study and to assign and track the corrective actions.

The inspectors verified that the licensee has identified the GL 89-10 gate MOVs that are required to open. In addition, the inspectors reviewed a partially completed PIP, Serial No. 0-093-0862 dated October 20, 1993, that addressed thermal binding and pressure locking. The inspectors informed the licensee that the NRC plans to issue additional recommendations in this area.

2.8 Motor Brakes

The inspectors reviewed a memo dated June 20, 1994, which documented a licensee walkdown of Units 1 and 3, inside and outside containment, in search of Limatorque actuators that had motor brakes installed on them. The results of the walkdown revealed no motor brakes on any GL 89-10 Limatorque operators. The licensee plans to conduct the same type of walkdown for Unit 2 during the upcoming outage (EOC-14) now scheduled for October 1994. A work request (No. 94010077) had been prepared for the planned walkdown.

2.9 Quality Assurance Program Implementation

The inspectors discussed the site quality assurance (QA) program and quality control inspection program with the licensee personnel. The licensee's position for the GL 89-10 QA program was that all procedures, parts, vendors and services, and purchased engineering studies and calculations are in the quality assurance QA1 classification (safety related). In addition, engineering is called prior to any corrective work performed on a GL 89-10 MOV. The deficiency reports (DR) identified as the PIPs are required to address all problems with safety related equipment. The PIPs are reviewed and signed by quality assurance personnel.

The inspectors reviewed the QA Audit Report Surveillance No. VNS-94104 for Liberty Technologies. The audit was conducted March 15-16, 1994, by the licensee to verify that Liberty technicians were performing calibrations of VOTES Systems utilizing approved procedures and traceable test equipment. In addition, the qualifications and training of the technicians was verified. The inspectors reviewed Departmental Audit NP-89-27(ON) dated January 5, 1990, that addressed GL 89-10 MOV testing and surveillance. No problems or concerns with the MOVs were identified in that audit. The inspectors did review and verify that PIPs were used to address MOV problems. Therefore, the inspectors concluded that adequate QA was implemented in the GL 89-10 program.

3. Exit Interview

The inspection scope and results were summarized on June 23 and 24, 1994, with those persons indicated in paragraph 1. The inspectors described the areas inspected and discussed in detail the inspection results listed below. Although reviewed during this inspection, proprietary information is not contained in this report. Dissenting comments were not received from the licensee.

The inspectors identified the following violation during this meeting.

50-269/94-13-01, Inadequate Procedure Preparation for ISI Testing

4. Acronyms and Initialisms

CE	Component Engineer
CFR	Code of Federal Regulations
DCP	Design Change Package
DP	Differential Pressure
DPS	Duke Power System
DR	Deficiency Report
EOC	End of Cycle
FSAR	Final Safety Analysis Review
GL	Generic Letter
ISI	Inservice Inspection
LPSW	Low Pressure Service Water
LVDT	Linear Variable Differential Transformer
MOV	Motor Operated Valve
MP	Maintenance Procedure
NPF	Nuclear Power Facility
NRC	Nuclear Regulatory Commission
ONS	Oconee Nuclear Station
PIP	Problem Investigation Process
PSI	Pounds Per Square Inch
PSID	Pounds Per Square Inch Differential
QA	Quality Assurance
RC	Reactor Coolant
TI	Temporary Instruction
VF	Valve Factor
VOTES	Valve Operation Test and Evaluation System
WR	Work Request