

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
REGION IV

Report Nos. 50-313/79-09
50-368/79-09

Docket No. 50-313
50-368

License No. DPR-51
NPF-6

Licensee: Arkansas Power and Light Company
P. O. Box 551
Little Rock, Arkansas 72203

Facility Name: Arkansas Nuclear One (ANO), Units 1 and 2

Inspection At: ANO Site, Russellville, Arkansas

Inspection Conducted: April 14 through May 11, 1979

Inspectors: *T. F. Westerman for* 5/30/79
W. D. Johnson, Resident Reactor Inspector Date

Robert A Spangler 5/30/79
R. G. Spangler, Reactor Inspector Date

T. F. Westerman for 5/30/79
M. W. Dickerson, Reactor Inspector Date

Dennis L. Kelley 5/29/79
D. L. Kelley, Reactor Inspector Date

E. H. Johnson 5/29/79
E. H. Johnson, Reactor Inspector Date

G. H. Verduzco 5/29/79
G. H. Verduzco, Reactor Inspector Date

Reviewed By: *T. F. Westerman* 5/30/79
T. F. Westerman, Chief, Reactor Projects Section Date

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Inspection Summary

Inspection conducted during period of April 14 through May 11, 1979 (Report No. 50-313/79-09)

Areas Inspected: Routine, announced inspection of previously identified inspection items, refueling activities, surveillance (refueling), maintenance (refueling), and licensee actions taken in response to IE Bulletin 79-05A. The inspection involved 192 inspector-hours on-site by six (6) NRC inspectors.

Results: Within the five areas inspected, no items of noncompliance were identified.

Inspection conducted during period of April 14 through May 11, 1979 (Report No. 50-368/79-09)

Areas Inspected: Routine, announced inspection of licensee actions taken in response to IE Bulletin 79-06B. The inspection involved 107 inspector-hours on-site by six (6) NRC inspectors.

Results: Within the area inspected, no items of noncompliance were identified.

DETAILS

1. Persons Contacted

Arkansas Power & Light Company Employees

J. P. O'Hanlon, ANO Plant Manager
G. H. Miller, Engineering & Technical Support Manager
L. Alexander, QC Engineer
B. A. Baker, Operations Superintendent
T. N. Cogburn, Nuclear Engineer
E. C. Ewing, Production Startup Supervisor
D. R. Hamblin, QC Engineer
T. Holcomb, Scheduler
P. Jones, Maintenance Supervisor
B. A. Terwilliger, Operations and Maintenance Manager
J. Robertson, ANO-1 Operations Supervisor
S. Petzel, Licensing Engineer
F. Foster, Plant Administrative Manager
R. Elder, I&C Supervisor
J. McWilliams, Planning & scheduling Supervisor
J. Vandergrift, Training Supervisor
T. Green, Training Coordinator
D. Trimble, Licensing Manager
F. Boswell, Safety and Fire Prevention Coordinator
C. Shively, Plant Performance Engineer

2. Plant Status

Unit 1

The plant was shutdown for refueling during this inspection period.

Unit 2

The plant was shutdown for maintenance following testing at the 20% power plateau.

3. Followup on Previously Identified Item

(Closed) Open Item (368/313/79-07-03) - Specific duties of Shift Supervisor during a fire emergency.

The inspector discussed this item with the licensee. The licensee feels the present wording defining the Shift Supervisor's duties during a fire emergency is satisfactory. The licensee has questioned the Shift Supervisors to verify that they understand their duties and responsibilities under these conditions. This item is closed.

4. Refueling Activities (Unit 1)

The inspector reviewed activities concerning the refueling of Unit 1. This review consisted of:

- . Review of prefueling activities
- . Fuel handling crew requirements
- . Core monitoring during refueling
- . Containment integrity
- . Fuel accountability
- . Observation of fuel movements

The reviews and observations were conducted to verify that refueling activities were conducted in accordance with Technical Specifications, NRC requirements and approved plant procedures.

No items of noncompliance or deviations were identified.

5. Surveillance (Refueling) (Unit 1)

The inspector reviewed the procedures and results of the following surveillance activity conducted during the refueling outage.

Diesel Generator Inspection ("A" Diesel Generator)

A review of Procedure 1405.02, Rev. 1, 1/27/78, and the results of the inspection covered by this procedure was made by the inspector to verify that the activities were in accordance with Technical Specifications and approved plant procedures.

6. Major Maintenance Activities (Refueling) (Unit 1)

The inspector reviewed the following maintenance activity during the refueling outage.

Emergency Cooling

This maintenance activity consisted of installation of two (2) safety grade cooling units to cool electrical equipment during post-accident conditions.

The inspector reviewed the Design Change Request (DCR 589), the purchase orders and material receiving reports concerning the work activities. The inspector also observed latter portions of the work in progress.

The documentation on seismic and environmental qualification is not complete. Also, at the time of this inspection the final acceptance test of the installed equipment had not been performed. This item will remain open pending qualification review and satisfactory acceptance testing.
(313/79-09-01)

7. Continued Review of Licensee Actions Taken in Response to IE Bulletin 79-05A (Unit 1)

A. On-site Inspection of Engineered Safety Features (ESF)

(1) Valve/Breaker/Switch Alignment Procedures

The inspectors completed the review of valve/breaker/switch alignment procedures for all ESF systems against current P&ID's and single-line drawings to verify adequacy of alignment procedures. (Reference paragraph 13 of inspection report 79-07).

The systems and the results of this review are as follows:

Service Water System

The inspector compared the valve/breaker lineup specified in Attachments A, B, C and D to Operating Procedure 1104.29 to drawing M210 for the Service Water System and found:

- (a) Per M-210 SW-44, RE3810 Isolation Valve, should be SW-93; and SW-45, RE3810 Isolation Valve, should be SW-89 on Attachment D to 1104.29, page 575. (Open Item 313/79-09-02)
- (b) That the addition of the valves installed under DCR 589, Vital Switchgear Room Coolers, to Attachment B and C valve lineup sheets of 1104.29 had not yet been completed. (Open Item 313/79-09-03)

Diesel Generator Starting Air System

No problems identified.

Penetration Room Ventilation

No problems identified.

(2) Administrative Controls After Testing/Maintenance

The inspector reviewed the licensee's administrative controls to verify that they assure proper return to service of ESF components following test and maintenance activities. This review was centered on the following procedures:

1004.14, Rev. 1, PC 1, Initiation and Processing of Job Orders
1004.19, Rev. 4, Hold, Caution and QC Tagging Procedure
1005.04, Rev. 3, Control and Use of Bypasses and Jumpers

- (a) The licensee's response to item 10 of IEB 79-05A reported that the job order form was being revised to specify all pre-maintenance and post-maintenance requirements and to include verification that they are met to assure redundant component operability prior to maintenance and to assure

affected component operability after maintenance or testing. This revision is considered necessary to strengthen the job order procedure and it will be reviewed by the inspector prior to unit startup. (Open Item 313/79-09-04)

(b) 1004.19

This procedure has the apparent weakness of not specifying the desired valve/breaker/switch position upon removing hold tags. The hold card request sheet has a signature space labeled "Tags Removed: System Returned to Normal," without stating what "normal" alignment is. After discussions with licensee representatives, the inspector stated that this procedure may be acceptable as is when used in conjunction with a properly revised and strengthened 1004.14.

(c) 1005.04

This procedure appears to require proper control of bypasses and jumpers. The inspector has indicated to the licensee that it would be acceptable, in order to simplify the administration of 1005.04, to eliminate logging requirements for jumpers and bypasses whose installation and removal are controlled by specific documented steps of an approved surveillance test procedure.

(3) Review of ESF Surveillance Tests

The purpose of this inspection effort was to review the surveillance test procedures for the ESF systems to ensure that the procedure restored the system to operability following the test and that appropriate testing was performed to meet Technical Specification requirements.

The following test procedures were reviewed:

- 1104.01 Supp. 1 - Core Flood Tank Operability
- 1104.02 Supp. 1 - High Pressure Injection (HPI) Valve Operability
- Supp. 2-4 - HPI Pump Operability
- 1104.04 Supp. 1-2 - Low Pressure Injection Pump and Valve Operability
- 1104.04 Supp. 2 - NaOH Addition Tank Valves
- Supp. 3-4 - Reactor Building (RB) Spray Pump
- Supp. 4 - RB Spray Valves
- Supp. 6 - RB Spray Nozzles
- 1104.33 Supp. 1-5 - Reactor Building Cooling
- 1104.36 Supp. 1 - Diesel Generator (DG) Operability
- Supp. 2 - DG Air Start Compressors Operability
- Supp. 3 - DG Fuel Oil Transfer Pump
- Supp. 4 - DG Overspeed
- 1104.43 Supp. 1-2 - Penetration Room Ventilation Filter Trains
- 1106.06 Supp. 1 - Electric Emergency Feedwater Pump (EFS)
- Supp. 2 - Steam Driven EFW Pump
- Supp. 3 - EFW Valve Operability
- Supp. 4 - EFW Flow Path Verification
- 1304.08 Supp. 1-6 - Integrated ES Test
- 1405.02 - Annual DG Inspection

No items of noncompliance or deviations were noted in this area of the inspection. However, the inspector had several questions and observations regarding certain procedures which were discussed with the licensee during the inspection. These items are considered open.

The inspector noted that there is no flow indication for the Emergency Feedwater (EFW) system and that the operation to shift EFW to its safety grade water supply (service water) must be done manually. The licensee is pursuing several modifications to the EFW system. (Open Item 313/79-09-05)

During review of the low pressure injection (LPI) system procedure the inspector noted that the acceptance criteria for pump Δp is 130-143 psid. The FSAR states that the rated pump Δp at rated capacity is 151 psid. The Technical Specifications require the pump to perform within ± 10 percent of initial values. The above acceptance criteria were established by the licensee for the ASME Section XI testing program. The inspector questioned whether or not these values were within the criteria of the Technical Specifications noting that the physical placement of pressure detectors in the system can cause readings to vary from design values. A licensee representative indicated that these criteria would be compared to the results of preoperational testing to determine if the appropriate acceptance criteria have been specified. (Open Item 313/79-09-06)

The inspector also noted that valves CV1401 and 1402 in the low pressure injection system are not cycled during the performance of surveillance testing on the LPI system valves. The valves form the boundary between the high pressure and low pressure side of the system and are excluded from the ASME Section XI testing while the plant is at normal operating pressure to preclude the possibility of overpressurizing the low pressure portion of the system. A Technical Specification Change is needed to reflect this exclusion from testing. (Open Item 313/79-09-07)

Supplement 1 to Procedure 1104.36, Diesel Generator Operability, test contains a procedural step that requires placing the diesel generator control switch in the maintenance position. Although subsequent test steps require that this switch be returned to the remote position, the inspector expressed concern that the restoration steps of the procedure do not include provisions to verify the diesel generator alignment for standby operation using control room indications. (Open Item 313/79-09-08)

During review of Procedure 1106.06, Emergency Feedwater (EFW) Operation, the inspector noted that step 6.2.2.2 requires the operator to verify the steam supply pressure to the EFW turbine.

However, no pressure valve is specified in order for the operator to determine that the pump is operating normally. A licensee representative indicated that such a valve will be provided in the procedure. The inspector further noted that valves CV2813 and CV2814 are not cycled during the performance of the routine valve operability test. These valves will be added to the procedure. (Open Item 313/79-09-09)

The inspector reviewed Procedure 1304.08, Integrated ES Test, and noted that the service water valve alignment specified in the preliminary steps of the procedure was in error. Establishing such an alignment would secure cooling water to the operating decay heat removal pump bearing cooler. It was further noted that the restoration steps of the procedure did not include several manual valves that were aligned in the preliminary steps of the procedure. Although the alignment of these valves would be checked prior to startup during the performance of valve lineups, these valves should be included in the surveillance procedure. A licensee representative indicated that the procedure would be changed to reflect these concerns. (Open Item 313/79-09-10)

(4) Review of ESF Surveillance Test Results

The purpose of this inspection effort was to review the results of the latest surveillance test on all ESF components to determine that the acceptance criteria for these tests were met.

The surveillance tests reviewed were the latest tests conducted by the licensee for each of the procedures reviewed above.

No items of noncompliance or deviations were noted. The inspector noted the following discrepancy which was discussed with the licensee during the exit interview. This item is considered to be an open item. (313/79-09-11)

During the performance of the filter train monthly test on the penetration room ventilation system on March 24, 1979, it was noted by the operator that the door to the upper north electrical penetration room would not properly shut due to a security monitor on the door. The inspector expressed his concern that this could affect the capability to properly seal this room. A licensee representative indicated that prompt action would be taken on this matter.

(5) Administrative Controls after Outage

The inspector reviewed the licensee's administrative controls to verify that ESF systems are returned to operability at the conclusion of extended outages. This review was centered on the following procedures:

1102.01, Rev. 5, PC 6 - Plant Preheatup and Precritical
Checklist

1102.02, Rev. 6, PC 1 - Plant Startup

Two apparent discrepancies were identified. The Hydrogen Purge System is not specified by these procedures to be aligned prior to startup, although licensee representatives informed the inspector that the alignment of this system is normally checked prior to startup after an extended outage. (Open Item 313/79-09-12)

The startup procedure does not specify the desired hand switch position for the High Pressure Injection Pumps. Although the mispositioning of these switches would not make the system inoperable, their desired position should be specified. (Open Item 313/79-09-13)

(6) Independent Verification

The inspector determined that the licensee does not use "independent verification of valve/breaker/switch alignments when performing those alignments following extended outages and after maintenance or test activities.

B. On-site Assessment of Operating Procedures

(1) Partial Actuation of Safety Injection to Aid in Pressurizer Level Control

Anticipated operational occurrences that have a characteristic of falling pressurizer level occur whenever secondary heat removal exceeds primary heat generation for a short period of time following the initiating event. Some examples of these include reactor trip, dropped control rod, feedwater control malfunctions, and secondary safety relief valve or turbine control valve malfunction. The pressurizer level instrument tap span is 320 inches at ANO Unit 1 with approximately 100 inches of additional level both above and below this span. Normal level is 180 inches. Early in the operation of Unit 1 (during 1974), at least one reactor trip occurred during which indicated pressurizer level was lost. Analyses by AP&L and B&W following this event showed that the level fell approximately 8 inches to 10 inches below the low level tap. The pressurizer level charts reviewed by the inspector support this analysis provided one assumes a smooth trend of level from the time it went off scale low until it reappeared (approximately 40 seconds). AP&L and B&W concluded that the main cause for this problem was primary temperature stabilizing at a lower point than design due to excessive feedwater flow and secondary relief valve settings on the low end of the acceptable band. Adjustments

were made within the Integrated Control System (ICS) and to the safety relief valves to improve the transient response of pressurizer level.

Loss of pressurizer level has not been experienced since this event. Prior to the above adjustments and as an interim measure, procedures were modified to require manual initiation of HPSI to maintain RCS water inventory. After the above adjustments were made, procedures were again modified to include pre-cautionary steps instructing the operator to start the standby makeup pump but to inject only through CV 1220, the normal makeup return valve. As the result of discussions with several senior reactor operators, the inspector understands that operators typically, during these types of transients, take manual control of the pressurizer level system and start the standby HPI pump. It appears that the system, if left to itself, would stabilize without the loss of pressurizer level indication; however, operator intervention terminates level drop and returns level to normal much more quickly than could otherwise be expected.

(2) Procedures for Feeding Dry Steam Generators

No procedures currently exist for feeding a dry steam generator from the emergency feedwater system. It would appear that there are two possible areas of concern: (1) tube integrity; and (2) excessive primary cooldown. The EFW system sprays into the OTSG directly onto the tube bundle in the slightly superheated steaming region. The plant staff feels that the EFW is therefore, rapidly brought to saturated conditions minimizing thermal shock to the OTSG tubes and thus do not regard tube integrity as a concern. The Operations Supervisor is considering adding a caution statement to the appropriate procedures to warn operators of the possibility of inducing too rapid a cooldown on the primary with the sudden injection of EFW.

(3) Control Panel Tagging

The inspectors reviewed the licensee's control panel tagging practices to determine whether potential exists for obscuring status indicators such as valve or switch position, meter indicators or alarms. Current practices appear to minimize the potential for obscuring status indicators, but the licensee has been asked to add an appropriate caution statement to Procedure 1004.19. (Open Item 313/79-09-14)

8. Review of Licensee Actions in Response to IEB 79-06B (Unit 2)

A. On-site Inspection of Engineered Safety Features (ESF)

(1) Valve/Breaker/Switch Alignment Procedures

The inspectors reviewed valve/breaker/switch alignment procedures for all ESF systems against current P&ID's and single line diagrams to verify the adequacy of alignment procedures.

The inspectors reviewed the following:

<u>Operating Procedures</u>	<u>P&ID Number</u>	<u>System</u>
2106.06	M-2204 Sh. 4/4	Emergency Feedwater
2104.01; 2104.39; 2104.40	M-2232	Safety Injection System
2104.05	M-2236	Containment Spray
2304.70	M-2206	Steam Gen. Secondary System
2104.36	M-2717 Sh 1, 2	Emerg. DG Systems
2104.43	M-2264	Containment Penetration Room HV
2104.29	M-2210 Sh. 1, 2, 3	Service Water
2104.44	M-2261	Hydrogen Analysis System

As a result of this review and discussions between the inspectors and licensee personnel, the following items are to be implemented:

- . Add a sign-off step for Procedure 2304.70, Containment Isolation and Miscellaneous Valve Stroke Test and Position Verification, to Procedure 2102.02, Plant Startup, within Section 8.
- . Cross reference the Category E Valve list in 2102.02 to the valve list attachments of the operating procedures such that valve positions are shown as-locked on both.
- . Add valves 2SW-73 and 2CV1406-2 to the attachment to 2104.29.
- . Add valves 2HPA-37 and 2HPA-38 to category E valve list (locked open)
- . Add locked open designation to 2HPA-37 and add 2HPA-38 (locked open) to the valve list for OP 2104.44

These items are collectively designated open item 368/79-09-01.

(2) Administrative Controls After Testing/Maintenance

The licensee's administrative controls for assuring proper return to service of ESF components following test and maintenance activities are the same for Units 1 and 2. For details, refer to paragraph 7.A(2) of this inspection report.

(3) Review of ESF Surveillance Tests

The purpose of this inspection effort was to review the surveillance and maintenance procedures for the ESF systems to verify that the procedures restored the systems to operability following maintenance or testing. The surveillance testing supplements of the following procedures were reviewed:

2104.01, R2	Safety Inspection Tank Operations
2104.03, R1, PC3	Chemical Addition
2104.05, R3	Containment Spray System
2104.29, R0, PC3	Service Water
2104.33, R2, PC1	Containment Atmospheric Control
2104.36, R1	Emergency Diesel Generator Operations
2104.39, R1	High Pressure Safety Injection System Operations
2104.40, R0, PC5	Low Pressure Safety Injection System Operations
2104.43, R0	Penetration Room Ventilation
2104.44, R1, PC2	Containment Hydrogen Purge & Recombiner Operations
2106.06, R1, PC9	Emergency Feedwater Pump Operations

In addition, Procedures 2304.67, LPSI Pump Maintenance, and 2304.67, Containment Spray Pump Maintenance, were reviewed.

No items of noncompliance or deviations were identified and all of the above procedures contained the necessary steps to restore the systems to operability.

(4) Review of ESF Surveillance Test Results

The inspector reviewed the results of the latest surveillance test performed for all ESF components to verify that the acceptance criteria for these tests were met. The surveillance procedures involved in this review were the test supplements for the above operating procedures.

No items of noncompliance or deviations were identified, but the February 1979 test data for 2104.05, Supplement 3, could not be located. This item is unresolved. (368/79-09-02)

(5) Administrative Controls After Outage

The inspector reviewed the licensee's administrative controls to verify that they assure the ESF systems are returned to operability at the conclusion of extended outages. The procedures involved were:

2102.01, Rev. 1, PC 2	Preheatup and Precritical Checklists
2102.02, Rev. 1, PC 11	Plant Startup
2102.03, Rev. 0, PC 5	Optional Plant Startup

The inspector noted that 2102.02 and 2102.03 are inconsistent in the positioning of the hand switch for the third high pressure injection pump. 2102.03 leaves this switch in "normal after stop" while 2102.02 leaves it in "pull to lock." A licensee representative agreed to verify the desired switch condition and make the appropriate procedure change. (Open Item 368/79-09-03)

(6) Independent Verification

The inspector determined that the licensee does not use "independent verification of valve/breaker/switch alignments when performing those alignments following extended outages and after maintenance or test activities.

B. On-site Assessment of Operating Procedures

(1) Partial Actuation of Safety Injection

Since Unit 2 has reached no higher power levels than 20%, the inspector was unable to determine if this Unit will require partial actuation of safety injection to assist in pressurizer level control during transients induced by routine operational events.

(2) Procedures for Feeding Dry Steam Generators

The licensee does not have procedures for feeding dry steam generators.

(3) Control Panel Tagging

Refer to paragraph 7.B(3) of this report.

9. Additional Questions and Answers Investigated by Region IV Inspectors

A. What is the normal status of the ECCS pump room doors for Units 1 and 2? Is this status specified by Procedure? How are we to be sure that the pump room doors will be sealed during the recirculation phase of LOCA cooling?

. The ECCS pump room doors for both Units 1 and 2 are normally open and are presently required to be closed by procedure only in the event of flooding. The Assistant Operations Supervisor has agreed to add steps in the followup action of the LOCA emergency procedures for Units 1 and 2 to require that the pump room doors be secured with the initiation of the recirculation phase of LOCA cooling. (Open Item 313/79-09-15; 368/79-09-04)

B. Do Units 1 and 2 have procedures for the failure of a primary PORV or safety valve to close?

. Emergency Procedure 1202.29, Pressurizer Problems, requires that the PORV be isolated in the event that it fails to operate or is leaking. The emergency procedures for a small LOCA are used in the event that the PORV or a safety valve fails open.

- C. Can the Unit 1 pressurizer reference leg flash? If so, has it happened here?

. The temperature of the Unit 1 reference leg is on the order of 150°F and though it could possibly flash, it is difficult to envision that system pressures would ever decrease to the saturation pressure for this temperature. As far as is known, this event has never occurred at ANO, Unit 1.

- D. Are the pressurizer pressure and level instruments safety-related? Are they powered from redundant vital buses?

. Pressurizer pressure is not sensed. RCS pressure is sensed and, as it inputs to the RPS, these instruments are safety-related and meet the design criteria requiring independent and redundant vital power supplies. Pressurizer level instrumentation is not used in any analyzed accident as a limiting or mitigating design feature. In this sense, it can be said to be non-safety related; although the loss of pressurizer level indication is not an insignificant event. There are two level instruments at ANO, both powered from one vital bus through the ICS cabinet and a third level instrument powered from a non-vital instrument bus. These instruments are considered 'Q Parts' since they are part of the primary pressure boundary and they appear to be identical to other instruments that are post LOCA qualified.

- E. What are the effects of ICS power failures on the EFW system?

. The ICS cabinet is normally powered from a vital AC source through a transfer network that will, on a loss of this normal source, switch to an alternate non-vital source, if available. It appears that a total loss of power to ICS would start the steam driven emergency feedwater pump but would leave the emergency feedwater block valves closed, thus requiring operator action to feed the OTSG's if that should become necessary. The inspectors have reviewed the consequences of some failures within the ICS cabinet. The results of this review can be summarized by saying that the system design was not intended to meet class 1E standards and these failures lead to varying degrees of degradation within the automatic circuitry.

- E. Has an analysis been done for the loss of off-site power which considers a single failure of the steam driven emergency feedwater pump?

. No analysis of an accident involving the single failure of the steam driven EFW pump coincident with a loss of off-site power has been performed since operator action is required to mitigate the consequences of this accident. At ANO, Unit 1, the backup electric driven EFW pump is powered from non-vital bus A1. Emergency Procedure 1202.05, Degraded Power, requires that

all A1 bus breakers be opened and defeated by the operator, except for the electric emergency feedwater pump load and that the A1 to A3 tie breaker be closed by the operator. This allows a diesel generator (DG) set to supply the electric EFW pump. The licensee indicates that a load study was performed to verify that the DG set is capable of supporting the running ESF loads and the running load of the electric EFW pump. The licensee's analysis of DG response to starting and tripping the electric EFW pump is not yet completed. (Open Item 313/79-09-16)

G. Has an analysis been done for a loss of feedwater from full power which considers single failures involving the EFW pump?

- . No analysis of this type of event has been performed since operator action is required to mitigate the consequences of this event. That is, the operator would be required to start the backup electric EFW pump to deliver emergency feedwater to the OTSG's.

H. Can the primary safety valves and the PORV pass water by design?

- . These valves were not designed by B&W to pass water. The licensee indicates that B&W believes that these valves would pass water and continue to function as designed; however, no documentation to support this opinion is available.

I. Is the power operated relief valve isolation valve capable of shutting against design steam flow and/or water flow?

- . The Operations Supervisor indicated in the one case where this isolation valve was required to close against steam flow, the valve stroked to the seat but tripped on over-torque without sealing. The torque switch was defeated and the valve was then fully seated. No information exists regarding the ability of this valve to close against water flow.

10. Unresolved Item

Unresolved items are matters about which more information is required to ascertain whether they are acceptable, items of noncompliance or deviations. The unresolved item identified during this inspection is described in paragraph 8.A(4).

11. Exit Meetings

Exit meetings were conducted at the end of various segments of this inspection with Mr. J. P. O'Hanlon (Plant Manager) and other members of the AP&L staff.