

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 50-458/89-41      Operating License: NPF-47

Docket: 50-458

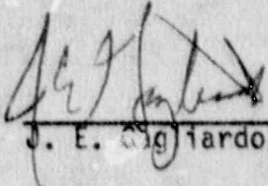
Licensee: Gulf States Utilities Company (GSU)  
P.O. Box 220  
St. Francisville, Louisiana 70775

Facility Name: River Bend Station (RBS)


Inspection At: RBS, St. Francisville, Louisiana

Inspection Conducted: November 1-15, 1989

Inspectors:

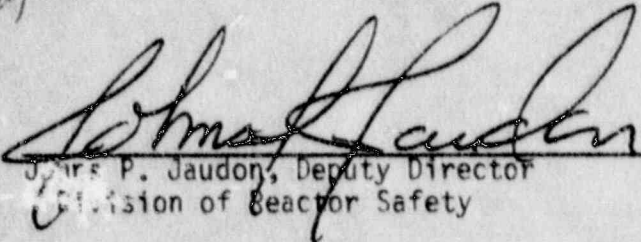
  
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J. E. Gagliardo, Chief, Operational Programs Section

12/4/89  
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Date

  
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W. B. Jones, Resident Inspector

12/4/89  
\_\_\_\_\_  
Date

Approved:

  
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P. Jaudon, Deputy Director  
Division of Reactor Safety

12/4/89  
\_\_\_\_\_  
Date

Inspection Summary

Inspection Conducted November 1-15, 1989 (Report 50-458/89-41)

Areas Inspected: Nonroutine, unannounced inspection of the reactor recirculation flow control system malfunctions of January 17 and 18, 1989, and the management actions related to the direction and oversight of these events.

Results: Within the area inspected, several potential violations were identified involving failure to control troubleshooting and repair activities adequately, failure to perform post-maintenance testing, failure to take appropriate corrective actions regarding the malfunctions, and failure to review and evaluate adequately the malfunctions (Paragraph 2.). Collectively, these potential violations raise serious concerns regarding the effectiveness of management's response to the malfunctioning flow control system, particularly since troubleshooting and repair activities resulted in inducing uncontrolled reactivity changes that resulted in several power and flow oscillations. Further, management apparently failed to recognize the significance of the flow control malfunctions and the resulting uncontrolled reactivity and flow oscillations. Consequently, corrective actions and actions to prevent recurrence did not provide adequate assurance that a similar event would be handled in a more conservative manner.

## DETAILS

### 1. Persons Contacted

- J. A. Bowlby, Shift Supervisor
- J. Boyle, Shift Supervisor
- \*G. A. Bysfield, Supervisor, Control Systems
- J. E. Booker, Manager, Oversight
- \*J. W. Cook, Lead Environmental Analyst, Nuclear Licensing
- D. Dawson, Reactor Operator
- \*T. C. Crouse, Manager, Quality Assurance (QA)
- J. C. Deddens, Senior Vice President, River Bend Nuclear Group
- \*S. Finnegan, Shift Supervisor
- \*L. A. England, Director, Nuclear Licensing
- A. O. Fredieu, Supervisor, Operations
- C. A. Fu, Field Engineer, G. E.
- K. J. Giadrosich, Supervisor, Quality Engineering
- P. D. Graham, Executive Assistant
- D. Hicks, Field Engineering, G. E.
- R. Jackson, Coordinator, Nuclear License Training
- M. Jones, Training Instructor
- \*D. N. Lorfing, Supervisor, Nuclear Licensing
- I. M. Malik, Supervisor, Operations QA
- \*W. H. Odell, Manager, Administration
- \*T. F. Plunkett, Plant Manager
- \*M. F. Sankovich, Manager, Engineering
- \*J. P. Schippert, Assistant Plant Manager, Operations and Radwaste
- \*R. G. West, Assistant Plant Manager, Technical Services

The inspectors also interviewed additional licensee personnel during the inspection period.

\*Denotes those persons that attended the exit interview conducted on November 15, 1989. E. J. Ford, NRC Senior Resident also attended the exit interview.

### 2. Reactor Recirculation Flow Control Valve Instability

This inspection was conducted to review a previous operational problem with the "B" reactor recirculation flow control valve (FCV) that occurred on January 17-18, 1989. During the Maintenance Team Inspection (NRC Inspection Report 50-458/89-04) performed during the period of September 18 through October 17, 1989, the inspector reviewed Condition Reports 89-0042 and 89-0043, which documented operational instability of the "B" recirculation FCV. The inspector initiated an Unresolved Item (458/8904-01) as a result of this review. The inspector's followup to this Unresolved Item is discussed in the following paragraphs.

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0. Background

On January 16, 1989, the licensee synchronized the main generator onto the grid following replacement of a failed ground fault relay. Reactor power escalation continued through January 17, 1989, to approximately 84 percent. At 10:18 p.m., the "B" recirculation FCV hydraulic power unit (HPU) tripped because of excessive servo error. A control room log entry made on January 17, 1989, at 10:18 p.m., states that,

"HPU for 'B' flow control valve tripped due to excessive servo error. Valve position 76%. Restored HPU, zeroed servo error, reset lockup. Erratic cycling of servo error was observed with valve motion attempting to follow signal. HPU again tripped on servo error (motion inhibit). Valve position 74%."

During the first event, the "B" reactor recirculation loop flow increased by approximately 2 million pounds mass per hour (mlbm/hr) as indicated by the individual Recirculation Loop Flow Chart Recorder B51-R614. After restoring the "B" HPU and resetting the motion inhibit, the "B" recirculation loop flow decreased by 1 mlbm/hr.

The "B" HPU remained shutdown with the "B" FCV in the "lockup" condition. However, a slow hydraulic fluid leakage past the "B" FCV actuator allowed the FCV to drift in the open direction. This resulted in a slow reactivity addition to the reactor. During the next 2 hours, the reactor coolant flow through the "B" recirculation loop increased from approximately 29 mlbm/hr to 34 mlbm/hr. Because of the increased feedwater demand resulting from the increased steam production at the higher reactor thermal power (approximately 92 percent), the reactor operator at the controls (ATC) was required to place the startup feedwater regulating valve into service. At the time, the third feedwater regulating valve had been tagged out-of-service and was not available. Later, to maintain total reactor coolant flow below the 100 percent core flow limit of 64.5 mlbm/hr, the ATC operator decreased the "A" recirculation loop flow. This placed the plant into a 2-hour Technical Specification Limiting Condition for Operation (Technical Specification 3.4.1.3) with the recirculation loop flow mismatch greater than 5 percent with total core flow greater than 70 percent. The basis for the flow mismatch specification is to ensure compliance with the emergency core cooling system loss of coolant accident analysis design criteria for two recirculation loop operation.

On January 18, 1989, at 12:07 a.m., the licensee began inserting control rods to reduce the control rod line to less than 80 percent. This was performed to ensure that if the recirculation pumps tripped, the subsequent flow coast down would be below the area on the power-to-flow map where thermal hydraulic instability had been experienced

at other boiling water reactors. (Reference Information Notice 88-39: LaSalle Unit 2 Loss of Recirculation Pumps with Power Oscillation Event). This action was completed within approximately 3 hours.

At this time, the licensee initiated prompt Maintenance Work Order (MWO) R56226 to troubleshoot the "B" FCV "lockup" and excessive positive and negative control demands. The MWO authorized the performance of troubleshooting activities under the direction of the system engineer. The system engineer subsequently directed the instrument and control (I&C) technicians to lift the leads from the "B" FCV linear variable differential transducer (LVDT), which provided feedback to the "B" FCV controller on FCV position.

At approximately 1:40 a.m. on January 18, 1989, the ATC operator was able to drive the "B" FCV in the close direction. This was accomplished by lifting the leads from the "B" FCV LVDT, which provided feedback to the "B" FCV controller on FCV position. A negative servo error was then input on the "B" FCV by the ATC operator. The "B" HPU then started and the valve motion inhibit reset. When the valve reached the desired position, the ATC operator tripped the HPU to stop the valve motion. The "B" FCV was again operated in the close direction at approximately 4:00 a.m. on January 18, 1989, utilizing the method described above.

At 6:00 a.m. on January 18, 1989, the oncoming operations crew relieved the operations crew that had originally experienced the malfunction (RBS operations crews work 12-hour shifts). At approximately 8:20 a.m., the ATC operator attempted to close the "B" FCV by restarting the "B" HPU and resetting the motion inhibit. The operator input a small negative servo error as indicated by the controller. When the ATC operator reset the "B" FCV "lockup", the "B" FCV ramped open from 84 to 97 percent. Recirculation "B" loop flow changed between 30.5 and 35.5 mlbm/hr. The ATC operator stopped the "B" FCV movement by locking up the FCV. Total core flow increased to 104 percent and the recirculation loop 5 percent flow mismatch limit was exceeded. Total core flow remained above 104 percent for approximately 3.5 minutes before the ATC operator was able to close the "B" FCV to match the "A" recirculation loop flow. Reactor thermal power increased from approximately 74 to 77 percent as indicated by the average power range monitor (APRM) strip chart because of the above event. The licensee has since postulated that the input servo error may have actually been slightly positive, which caused the "B" FCV to ramp open.

At approximately 11:50 a.m. on January 18, 1989, the ATC operator was able to operate the "B" FCV in the close direction to match the "A" recirculation loop flow. This was necessary because of the "B" FCV drift that was experienced with the FCV in "locked up." In each of the above cases, total core flow was allowed to drift to approximately 100 percent. In each case, the licensee was relying on the malfunctioning

control system to control reactivity and remain within the RBS Technical Specification limit for recirculation loop flow. The "A" and "B" FCV were then operated in the close direction to reduce total core flow to approximately 85 percent.

As a result of the troubleshooting activities authorized by MWO R56226, the licensee concluded that a control card in the "B" FCV control circuit had failed and that a solenoid valve in the "B" HPU was not operating properly. At approximately 2:30 p.m., the licensee reduced total core flow to 61 percent and reactor thermal power to 60 percent. This action was taken by the reactor operators to place the "B" recirculation loop into a condition where the "B" FCV would not drift while the "B" HPU was out-of-service for the servo valve and control card replacement. Another consideration regarding this decision was the fact that a 10 percent recirculation loop flow mismatch is allowed with total core flow below 70 percent. The control card replacement was authorized by MWO R56226 and the solenoid valve replacement was authorized by MWO R118514.

After completion of the above maintenance activities, at about 4:18 p.m., the "B" HPU was started. When the "B" FCV motion inhibit was reset, the "B" FCV immediately began following the oscillating servo error. The amplitude of each FCV movement increased with each cycle until the ATC operator shut down the "B" HPU after 5 seconds. The emergency response information system (ERIS) data taken indicated neutron flux varied between 45 and 88 percent during the "B" FCV movement. Reactor thermal power remained relatively steady. The individual recirculation loop flow chart recorder indicated that the "B" HPU was started and the motion inhibit reset on at least three occasions following the above event. The individual recirculation loop flow chart recorder indicated that similar "B" FCV movements occurred, but ERIS data was not archived for the subsequent "B" FCV movements. The licensee subsequently determined that the linear velocity transmitter had failed (as an open circuit) in the drywell, and thus the "B" FCV control circuitry was not receiving a FCV velocity feedback signal. During this period, the licensee also determined that the "B" FCV was moving in excess of the RBS Technical Specification limit of 11 percent per second of valve stroke (Technical Specification 4.4.1.1.1). The licensee subsequently declared the "B" recirculation loop inoperable and entered single loop operation (SLO) to correct the failed control circuitry.

Prior to the licensee implementing SLO on January 18, 1989, licensee engineering personnel discussed with the NRC resident inspector the planned corrective maintenance actions for the "B" loop recirculation FCV. The inspector questioned the potential impact of the proposed technical solutions. Various applicable electrical drawings and schematics were utilized during this process to verify that the proposed actions would have conservative results.

The licensee had determined that a velocity transducer or its signal wiring was open circuited for the "B" FCV, thus causing it to be inoperable. The licensee prepared an unreviewed safety question determination (USQD) review for the proposed action which involved adjustments to the FCV controller. The adjustments would have the effect of changing the control of the FCV from a velocity and position controller to a position controller only. Subsequent to these discussions, the inspector discussed, with regional and NRR personnel, the details of the problems with the "B" FCV, the licensee's planned corrective actions, and their intent to go to single loop operation.

In conjunction with entry into SLO, the inspector reviewed the implementation of Procedure GOP-0004, "Single Loop Operation" and observed Surveillance Test Procedure STP-050-3001, "Power Distribution Limits Verification."

b. Assessment of the Malfunctioning Flow Control Valve System

This section of the report assesses the licensee's actions that resulted in, or followed the events described in Section 2.a. above. It also identifies the potential violations that were identified by the inspectors.

- o The licensee had experienced periodic problems with the recirculation FCVs drifting during the 2 years prior to these events. Corrective actions to stop the valves from drifting while "locked up" were not effective until the FCV actuators were rebuilt during the last refueling outage. Based on this past experience, when the "B" HPU tripped to the maintenance mode on January 17, 1989, because of excessive FCV servo error, the ATC operator made several attempts to restart the "B" HPU. These attempts resulted in the FCV moving with the oscillating servo error, and ATC operator intervention was required to "lockup" the "B" FCV and terminate the "B" FCV movements.
- o The MWO that authorized the troubleshooting activities to be performed at the direction of the system engineer did not provide positive procedural controls. The engineer subsequently directed the I&C technicians to lift the control leads from the "B" LVDT. This resulted in the control system for the "B" FCV sensing the valve to be at 50 percent open. With the leads lifted, the ATC operator was able to establish a negative servo error and drive the FCV in the close direction. The valve was then stopped by the ATC operator shutting down the HPU when the valve reached the desired position. The licensee's failure to provide positive procedural controls for the troubleshooting of the flow control system (which involved lifting leads from the control circuits) is a potential violation of Technical Specification 6.8.1.



- ° On January 18, 1989, at approximately 8:20 a.m., the ATC operator apparently had not establish a sufficient negative servo error prior to restarting the "B" HPU. When the FCV motion inhibit was reset, the "B" FCV ramped opened from 85 to 97 percent and the HPU shutdown. This caused the total recirculation core flow to exceed 104 percent for greater than 3 minutes until the "B" FCV could be driven in the closed direction as described above. The licensee documented the above event in Condition Report 89-0042. This is another example of insufficient procedural guidelines/directions, which is a potential violation of Technical Specification 6.8.1 that led to an operational event.
- ° Replacement of the "B" FCV control circuit "Modicon" card and "B" HPU servo valve were authorized by MWOs R56226 and R118514, respectively. Neither maintenance activity had a specified functional/operability test performed prior to placing the component back in service. Gain adjustments to both the position and velocity controllers appeared to have been made on January 18, 1989, in accordance with field engineers direction, but the unreviewed safety question determination was not performed until January 21, 1989, when the nuclear steam supply system vendor recommended specific gain adjustments to make the controller operate in the proportional mode only. This is another example of activities, which were performed without specifically approved procedural guidance/directions and constitutes a potential violation of Technical Specification 6.8.1. The fact that the gain adjustment were made without a safety evaluation is also a potential violation of the requirement of 10 CFR 50.59.
- ° Following replacement of the control card and solenoid valve, the operator started the "B" HPU. When the FCV motion inhibit was reset, the FCV began tracking the oscillating servo error signal. The FCV position modulated between 25 and 38 percent open. The neutron flux subsequently varied between 45 and 88 percent as indicated on the APRMs. The neutron flux oscillations were a direct result of the FCV movements. The amplitude of the valve swings, while tracking the servo error, increased with each cycle. The FCV cycled with a frequency of less than 1 Hz and the event was terminated by the ATC operator after approximately 5 seconds. The "B" FCV was subsequently operated an additional three times for troubleshooting activities as part of MWO R56226. In each case, the "B" FCV attempted to respond to the oscillating servo error, and the flow charts indicated that flow oscillations similar to those in the initial event (at 8:20 a.m.) were experienced. The initial event was documented by the licensee on Condition Report 89-0043. The licensee's failure to have detailed post-maintenance test procedures to test the flow control system following the repairs and the fact that the testing was performed on an operating loop led to

the subsequent power and flow oscillations. The licensee's Administrative Procedure ADM-0028, "Maintenance Work Order," Revision 10, paragraph 5.12.26 states, "Ensure post-maintenance testing is performed and the required documentation is attached to the MWO. Appropriate post-maintenance testing shall be specified for all components that have been reworked, repaired, replaced, or modified. Record test results in the Functional Text/Operability Area of the MWO." The licensee's failure to have documented post-maintenance testing of the required flow control system with adjusted gain controls, is a potential violation of this procedure and Technical Specification 6.8.1.

- o On January 18, 1989, the licensee determined that the "B" FCV movements documented in Condition Reports 89-0042 and 89-0043 exceeded the 11 percent per second Technical Specification limit for the valve's movement in both open and close directions. The licensee subsequently declared the "B" recirculation loop inoperable and entered into single loop operation. This determination was made after completion of the "B" FCV troubleshooting that led to the power and flow oscillation event described in Condition Report 89-0043.
- o Condition Report 89-0042 addresses the RBS Technical Specification requirement that the FCVs "lockup" on a loss of HPU pressure. The operators had observed a 13 percent per hour of full stroke drift of the "B" FCV at the higher total core flow rates. The licensee cited the October 9, 1981, loss of coolant accident (LOCA) that analysis with recirculation FCV closure (LRG-II) in determining the FCV drift, with the valve "locked up," was within the Technical Specification requirement. The LRG-II analysis references the emergency core cooling system (ECCS) analysis presented in chapter 6.3 of the USAR, which assumes the FCVs undergo a "lockup" in their present position on high drywell pressure following a LOCA. The analysis also assumes that one FCV fails to "lockup" and closes at a rate of 11 percent per second. The FCV closure results in an increased peak fuel cladding temperature (PCT) of 450F. The increased PCT was determined to remain within the limits of 10 CFR 50.46. Because the FCV drift problem had been in the conservative direction (open) and the drift rate magnitude was small, the licensee concluded the "B" FCV was within the RBS Technical Specification requirement for FCV "lockup". The inspectors did not concur with this conclusion. The FCV had an uncontrolled drift of only 13 percent per hour, but this drift was observed in the "lockup" mode when no valve movement was expected. The flow control system was malfunctioning and the licensee did not take a conservative approach in their analysis.

- ° The licensee subsequently concluded that the linear velocity transducer had failed with an open circuit in the drywell. This resulted in the complete loss of the velocity feedback signal to the control system. During the second refueling outage, the licensee identified that fluid from the FCV actuator had leaked onto the linear variable transducer (LVT) and caused the open circuit. A modification was made to both FCVs to direct any hydraulic fluid leaks away from the LVTs and the LVDTs.

The NRC staff is concerned that in addition to the potential violations, the licensee's plant and engineering staff relied on the malfunctioning "B" flow control system to maintain recirculation loop flows within the RBS Technical Specification mismatch limits. The action resulted in uncontrolled reactivity changes.

c. Management Involvement

Operations management up to the level of assistant plant manager for operations was aware of the flow control problem at the time of the event. Although the licensee did insert control rods and reduce the control rod line to less than 80 percent early in the sequence of events, it does not appear that stringent precautions or guidance was given to the operators other than a tacit approval to continue their troubleshooting activities.

The inspectors interviewed the shift supervisors and other members of the operating crews that were on shift during the course of these events. The operating log for the evening of January 17, 1989, indicates that the operations supervisor was notified of the problem at about 10:30 P.M., which was shortly after the problem with the FCV was first observed. According to the shift supervisor that was on watch at the time of the initial problem on January 17, 1989, he was notified by the operations supervisor to "restart the plant" and reset the "motion inhibit" for the FCV. The shift supervisor said that every time they tried to reset the "motion inhibit" and tried to close the valve, it would begin to open instead. He said that the engineer, who had been called in to troubleshoot the problem lifted a lead in the circuit to restrict the motion of the valve in the open direction. An MWO (R56226) had been issued to troubleshoot the flow control circuit, but the inspectors found no definitive procedural controls other than Procedure GMP-0042 (which is the procedure for controlling lifted leads) to cover these troubleshooting activities.

The inspectors asked the operators if they were concerned about what was happening with the plant. Two of the operators (one was a shift supervisor) said that they were concerned about the uncontrolled reactivity additions and had expressed their concerns to their management. The managers said that their management was not happy with the situation, but they were satisfied with what was being done to correct the problem. None of those interviewed said that they had recommended to their management that the plant be shutdown or that the plant be placed into single loop operation until the problem was resolved.

After the problem had been initially identified as being caused by a defective solenoid and a defective control card, the solenoid and the control card were replaced. The licensee reduced power and recirculation flow to less than 60 percent to make the repairs. Upon completing the repairs, the licensee performed what was termed as troubleshooting activities on the system. They did not term these activities as post-maintenance testing, and no specific post-maintenance testing was performed following the replacement of the card and solenoid. The "troubleshooting" activities that were performed following the maintenance resulted in the flow and power oscillations, which occurred on four separate occasions.

d. Lessons Learned and Corrective Actions

The inspection findings indicated that the licensee did not understand the significance of the events of January 17 and 18, 1989. As a result, their corrective actions were not appropriate to the significance of the events.

The inspectors asked the individuals interviewed to discuss the lessons they learned from the events of January 17 and 18, 1989. Most of the individuals interviewed said that they could not think of any lesson learned from the events. A few of the operators did note that as a result of the events, they had come to know more about the recirculation flow control system. Only one of the individuals interviewed expressed concern with what had happened. He said that he had mentioned this concern to a manager. His concern involved the fact that specific procedural controls and technical specifications are prescribed for reactivity additions because of control rod drifts. He said that the changes in recirculation flow also induced reactivity changes, but there were no prescribed actions to be taken for this mode of reactivity addition. He said that he could not understand why the recirculation flow changes were not covered by similar Technical Specification and procedural requirements.

Several of the operators interviewed said that they had experienced drifting with the FCV prior to the events of January 17 and 18, 1989. Apparently the licensee's failure to recognize the significance of the earlier problem contributed to their failure to give more serious attention to the events of January 1989.

The Independent Safety Engineering Group (ISEG) was tasked to analyze the performance of the plant following the initial conduct of SLO. Following the events of January 17-18, 1989, the plant entered into SLO for the first time. ISEG evaluated the SLO operations and the events leading to SLO. This evaluation was documented in Operating Experience Report (OER) 89-004 that was issued on July 21, 1989. The inspectors asked the individuals interviewed regarding their awareness of the report, which analyzed the events that led to the SLO and the success of the SLO. Most of the individuals interviewed were unaware

of the ISEG report, but said that it may have been placed on their required reading list and they just did not recall it. The ISEG report addressed the flow oscillation problems and had a number of good conclusions and recommendations that should have been the subject of critical evaluation by the plant staff. At the exit interview, the inspectors were provided with a copy of the staff's response to some of the recommendations of the report. The response, which was dated November 7, 1989 (nearly four months after the report was issued), did not address all of the report issues. The recommendations that were addressed (four of the six) were only marginally acceptable. Recommendation 89-004-04, which urged the use of SLO to troubleshoot flow control problems and prevent the oscillations of January 1989 were not effectively addressed in the response. This does not reflect a strong safety concern on the part of plant management for a problem that has such an effect on plant power levels.

The inspectors also asked the individuals interviewed to describe any training that they had received concerning the events of January 1989. The inspectors found that no training had been provided to the operating crews regarding these events. The assistant plant manager said that he believed that the two condition reports, which described the events, had been placed on the required reading lists for the operators. The operators did not recall reading the condition reports, and the inspectors were not successful in locating a copy of the required reading list that contained the subject condition reports. The training supervisor interviewed said that a training subject, such as the condition reports, would normally not be placed into the operator training schedule unless it was recommended by the operations staff. The licensee should consider the need for the training staff to take a more pro-active approach to determining lessons learned issues that need to be included in the training programs for all plant disciplines.

The inspectors found that QA had performed a surveillance regarding single loop operations, but they had not recognized the significance of the events of January 1989 even though they had received the ISEG report and the two condition reports that addressed these events. Quality assurance also needs to be more sensitive to these types of events and take a pro-active approach to alerting management regarding potential problems that have safety significance.

The inspectors found that the facility review committee (FRC) had reviewed Condition Report 89-0042 for resolution of the FCV system failures. However, the inspectors noted that the FRC did not consider the fact that the operations staff was relying on the malfunctioning FCV system to remain within the RBS Technical Specifications. This condition was apparent in both Condition Reports 89-0042 and 89-0043. The FRC, however, had not reviewed Condition Report 89-43, which documented the flow and power oscillations. According to a licensee representative they had not reviewed Condition Report 89-43 because the

event reported in it did not involve a Technical Specification limit being exceeded. The FRC's review responsibilities in Technical Specification 6.5.3 require that they review issues that present a potential hazard to nuclear safety. The events of January 1989 certainly approach a reasonable threshold for issues that should be included in this category. This is a potential violation of the requirements of Technical Specification 6.5.3. The licensee needs to reevaluate the screening process employed to assure that this committee is receiving the material (i.e. significant conditions reports) necessary to carry out its intended mission.

e. Conclusions

The weaknesses identified in these sections indicate a number of potential violations, which individually may not constitute a significant safety concern, but collectively raise serious questions regarding the safety consciousness of the operations and engineering staffs and their management. Further, the weaknesses identified above regarding the subsequent review and evaluation of this event raise concerns about the effectiveness of management controls and oversight over the RBS corrective action program. The apparent lack of responsiveness of the operations staff to the ISEG report conclusions and recommendations is of particular concern in this regard.

3. Exit Interview

An exit interview was conducted with licensee representatives identified in paragraph 1 on November 15, 1989. During this interview, the inspectors reviewed the scope and findings of the report. Other meetings between the inspectors and licensee management were held periodically during the inspection period to discuss identified concerns. The licensee did not identify as proprietary any information provided to, or reviewed by, the inspectors.