ENCLOSURE 2

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket Nos:	50-313; 50-368
License Nos:	DPR-51; NPF-6
Report No:	50-313/97-04; 50-368/97-04
Licensee:	Entergy Operations, Inc.
Facility:	Arkansas Nuclear One, Units 1 and 2
Location:	1448 S.R. 333 Russellville, Arkansas 72801
Dates:	June 8 through July 19, 1997
Inspectors:	K. Kennedy, Senior Resident Inspector J. Melfi, Resident Inspector S. Burton, Resident Inspector
Approved By:	Elmo E. Collins, Chief, Project Branch C Division of Reactor Projects

ATTACHMENT: Supplemental Information

EXECUTIVE SUMMARY

Arkansas Nuclear One, Units 1 and 2
NRC Inspection Report 50-313/97-04, 50-368/97-04

Operations

- Unit 2 control room operators demonstrated good command and control during the reactor startup following completion of Refueling Outage 2R12. Reactor engineering was attentive to the approach to criticality. Operations management was actively involved with all phases of the startup (Section O1.2).

- The inspectors determined that operator response to a small fire on the Unit 2 high pressure turbine casing was very good in that the licensee took appropriate actions to identify any other potential ignition sources on the high pressure turbine and established appropriate measures to monitor the turbine and react to smoke or fire during the subsequent power ascension. In addition, the licensee demonstrated very good command and control and good communications with the fire brigade (Section O1.3).

- When responding to an inadvertent initiation of emergency feedwater (EFW) caused by a lightning strike, Unit 1 operations personnel and management demonstrated a strong questioning attitude and effective communications which contributed to safety and the successful restoration of EFW. The candor with which operators and management questioned possible actions and requirements aided with the proper application of Technical Specifications (TS) and the decision making process. The decision making and strong lines of communications demonstrated by the licensee were considered a strength (Section O1.4).

- A 95 percent humidity requirement identified in Unit 1 TS 3.9.1 was not applied to the Unit 2 control room ventilation/filtration which is shared with Unit 1. Prior to identification of the error, the Unit 2 system was only tested to 70 percent as identified in the Unit 2 TSs. This violation of Unit 1 TSs is being treated as a noncited violation (Section O8.5).

Maintenance

- Unit 1 technicians, engineering, and management were sensitive to the potential of inducing a main turbine generator trip when performing work to restore power to generator protective relaying found de-energized. Licensee personnel involved with the restoration process demonstrated good peer checking, second verification, and communications (Section M1.2).

Engineering

- Engineers accurately diagnosed the cause of pressure swings in the Unit 1 main feedwater pump discharge pressure and implemented innovative corrective actions. The licensee thoroughly evaluated the implications of the pressure swings and established guidance to operators in the event of a feed pump transient (Section E1.1).

- The licensee's failure to perform a safety evaluation prior to adjusting the Unit 2 - logarithmic power level - high trip setpoint was determined to be a violation of 10 CFR 50.59. Once a safety evaluation was performed, the licensee determined that the change did not involve an unreviewed safety question (Section E8.1).

Report Details

Summary of Plant Status

Unit 1 began the inspection period at 100 percent power. Power was reduced to 41 percent on June 29, 1997, for secondary systems maintenance and remained between 41 and 55 percent until July 1 when the maintenance was completed and power was restored to 100 percent. On July 19, power was reduced to approximately 95 percent for the remainder of the reporting period to accommodate cleaning and inspection of condenser circulating and service water bays.

Unit 2 began the inspection period shutdown for Refueling Outage 2R12. Reactor startup was commenced on June 9, 1997, and reactor power was slowly escalated to allow for reactor physics and startup testing. Power reached 100 percent on June 17 where it remained through the end of the reporting period.

I. Operations

O1 Conduct of Operations

O1.1 General Comments (71707)

The inspectors observed various aspects of plant operations, including compliance with TSs; conformance with plant procedures and the Safety Analysis Report (SAR); shift manning; communications; management oversight; proper system configuration and configuration control; housekeeping; and operator performance during routine plant operations, the conduct of surveillances, and plant power changes.

The conduct of operations was professional and safety conscious. Included in these observations was a review of the Unit 2 operator work arounds which were found to be properly documented and scheduled for periodic reviews. Evolutions such as surveillances and plant power changes were well controlled, deliberate, and performed in accordance with procedures. Shift turnover briefs were comprehensive and were typically attended by a chemistry technician, a health physics technician, and a representative from system engineering. Housekeeping was generally good and discrepancies were promptly corrected. Safety systems, including verification of containment penetration valve alignments utilizing portions of Unit 1 Procedure 1102.001, Revision 57, "Plant and Precritical Checklist," and Unit 2 Procedure 1015.034, Revision 3, "Containment Penetration Administrative Control," were found to be properly aligned. Specific events and noteworthy observations are detailed below.

O1.2 Unit 2 - Reactor Startup Following Refueling Outage 2R12

a. Inspection Scope (71707)

On June 6, 1997, the licensee commenced a reactor startup following completion of Refueling Outage 2R12. The inspectors observed the startup and related activities.

b. Observations and Findings

Startup was conducted in accordance with Procedure 2102.016, "Reactor Startup." Approach to critical commenced on June 8, at 5:26 p.m. The plant entered Mode 2 at 6:08 p.m. and reactor criticality was achieved at 7:55 p.m. Mode 1 was entered at the completion of low power physics testing at 2:48 p.m. on June 9. Control room operators were attentive to procedural requirements. Pre-evolution briefs were conducted for the approach to criticality. Control room operators performed the evolution cautiously and methodically. Operations management was present and actively involved with the startup. Proper three-way communications were utilized during all critical evolutions. Reactor engineering conducted low power physics testing per Procedure 2302.021, "Sequence For Low Power Physics Testing Following Refueling," to verify fuel loading and core reactivity. A reactor engineer monitored the approach to criticality with a second reactor engineer performing independent verifications of 1/M plots and reactivity calculations as required by procedure. Criticality was achieved within the range allowed by the estimated critical rod position calculations. The inspectors observed control room operators apply good command and control when they halted all evolutions while responding to a building area radiation monitoring alarm.

c. Conclusions

Unit 2 control room operators demonstrated good command and control during the reactor startup following completion of Refueling Outage 2R12. Reactor engineering was attentive to the approach to criticality. Operations management was actively involved with all phases of the startup.

O1.3 Unit 2 - High Pressure Turbine Insulation Fire

a. Inspection Scope (92901)

The inspectors reviewed the licensee's response and followup actions to a small insulation fire located on the high pressure turbine.

b. Observations and Findings

On June 11, 1997, Unit 2 was at 30 percent reactor power and operators were raising power following the completion of Refueling Outage 2R12. An operator

noticed smoke in the turbine building and identified that the smoke was coming from a section of insulation on the high pressure turbine. The fire brigade was dispatched to the scene when it was reported to the control room that the insulation was glowing. As sections of the insulation were removed from the area, small flames erupted which were extinguished with a fire extinguisher. Flames erupted several more times and were extinguished until finally the insulation stopped smoking. The total duration of the event was 7 minutes. The licensee conducted an inspection of the turbine and connected piping to identify whether other sections were smoking. None were identified. A reflash watch was posted. Further inspection revealed that the fire appeared to start near a stud on the high pressure turbine shell casing.

In the control room, operators reduced turbine load by 10 megawatts using the turbine bypass valve and made preparations to secure the turbine if necessary. The inspectors observed very good command and control in the control room. Communications were established with the fire brigade leader and the status of the fire was communicated to the shift superintendent. The operators utilized a remote video camera located in the turbine building that fed a monitor located in the control room to monitor activities around the high pressure turbine.

Shortly after the fire was extinguished and conditions stabilized, licensee management met and developed a list of potential ignition sources and identified actions to be taken prior to recommencing the power ascension. Immediate action taken in response to the fire included an inspection of approximately 80 percent of the turbine casing flange to look for combustibles and potential fire hazards. Although duct tape was found on some of the studs, no evidence of smoke or fire was identified. The licensee also did not identify any oil soaked insulation. Contingency actions were developed for implementation during the power ascension. These included stationing a continuous firewatch in the area of the high pressure turbine, posting a fire brigade member as the firewatch in the event that minor smoke was identified, and directions on how to fight a fire, should one occur. The firewatch was maintained for 24 hours after the plant was stabilized at 100 percent reactor power. Although some minor smoking was noted during the power ascension, no fire occurred. The inspectors determined that the licensee took appropriate actions to identify other potential ignition sources on the high pressure turbine and established appropriate compensatory actions during the subsequent power ascension.

At the close of the inspection period, the licensee was still developing the root cause for the fire. However, based on analysis of the burned insulation, the licensee believed that the fire resulted from a small amount of lubricating oil or hydraulic fluid that was spilled onto the turbine casing stud. The licensee was developing corrective actions to address the potential causes of the fire.

c. Conclusions

The inspectors determined that operator response to a small fire on the Unit 2 high pressure turbine casing was very good in that the licensee took appropriate actions to identify any other potential ignition sources on the high pressure turbine and established appropriate measures to monitor the turbine and react to smoke or fire during the subsequent power ascension. In addition, the licensee demonstrated very good command and control and good communications with the fire brigade.

O1.4 Unit 1 - EFW Actuation Due Surveillance Testing of Reactor Protection System (RPS) Channel A, Coincident With a Failure of EFW Initiation and Control (EFIC) Channel D

a. Inspection Scope (93702)

On July 8, 1997, the Unit 1 EFW system received an automatic initiation signal due to a perturbation on the electrical distribution system caused by lightning. Inspectors responded to the control room and observed the licensee's response to the transient.

b. Observations and Findings

Prior to the event, maintenance was being performed on the turbine-driven EFW pump and it was tagged out of service. Additionally, surveillance testing was in progress on RPS Channel A. RPS Channel A was supplying a loss of feedwater signal to EFIC Channel A, which was in bypass for surveillance testing. As a result of an electrical perturbation caused by lightning in the vicinity of the plant, EFIC Channel D failed to the tripped state and automatically removed EFIC Channel A from bypass. This resulted in a loss-of-feedwater signal to EFIC Channel A from RPS Channel A and an initiation signal from the EFIC Channel D failure. This condition satisfied the actuation logic and initiated EFW. The motor-driven EFW pump automatically started and the turbine-driven EFW pump remained secured due to the tagout. Operators verified their indications and determined that the EFW initiation was not required. They secured the motor-driven EFW pump by placing it in pull-to-lock. EFW flow to the steam generators did not occur because normal feedwater was operating and steam generator levels were above the set point required to open the EFW flow control valves.

Operators and instrument and control technicians investigated the cause of the EFIC Channel D failure and found that the 15 vdc and 28 vdc power supplies were de-energized. The power supplies de-energized automatically when internal protective features sensed a voltage spike caused by a lightning strike. To reset the protective feature, it was necessary to turn off and re-energize EFIC Channel D.

To align the system and enable the restoration of EFIC Channel D, RPS testing on Channel A was secured and reset. This removed the automatic initiation signal and

allowed the restoration of the motor-driven EFW pump to a normal line up. Additionally, operators restored the turbine-driven EFW pump. Although both EFW pumps were available, operators determined that testing was required for both motor- and turbine-driven EFW train components for the system to be declared operable. The inoperability of both trains of EFW placed the plant in TS 3.4.4.4, which required operators to place the plant in hot a shutdown condition within 6 hours. Testing was completed on EFIC Channel D and TS 3.4.4.4 was exited and the system declared fully operable when testing of the turbine-driven EFW pump was completed on July 9.

The inspectors observed good shift briefings, procedural compliance, peer checking, three way communications, and operator interaction with management during the restoration process. Additionally, a strong questioning attitude by two control room supervisors resulted in the proper TSs being applied when it was first thought that the 6-hour limited condition of operation could be exited upon restoration or EFIC Channel A. The candid openness demonstrated between the operators and management, when discussing options and opinions, was deemed a strength by the inspectors. The condition was entered into the licensee's corrective action program for tracking and resolution.

c. Conclusions

When responding to an inadvertent initiation of EFW caused by a lightning strike, Unit 1 operations personnel and management demonstrated a strong questioning attitude and effective communications which contributed to safety and the successful restoration of EFW. The candor with which operators and management questioned possible actions and requirements aided with the proper application of TSs and the decision-making process. The decision making and strong lines of communications demonstrated by the licensee were considered a strength.

08 Miscellaneous Operations Issues (92700, 92901)

08.1 (Closed) Licensee Event Report (LER) 50-368/95-004, "Control Room Emergency Ventilation System Actuation Due to Elevated Background Radiation Levels Which Resulted from the Failure to Fully Consider the Potential Effects of Performing an Evolution Known to Produce Elevated Airborne Levels"

This event was discussed in NRC Inspection Report 50-313/95-08; 50-368/95-08 and was the subject of a noncited violation. No new issues were revealed by the LER.

O8.2 (Closed) Violation 50-368/9507-01, "Failure to Utilize Procedures Resulting in Extensive Radiological Contamination of the Unit 1 Service Air System"

The inspectors verified the corrective actions described in the licensee's response letter, dated November 29, 1995, to be reasonable and complete. No similar problems were identified.

O8.3 (Closed) LER 50-368/96-001, "Flow Rate For Auxiliary Building Ventilation Gaseous Effluent Monitor Instrumentation Was Not Estimated as Required by Technical Specifications Due to Inadequate Training Regarding Ventilation Flow Adjustment"

This event was discussed in NRC Inspection Report 50-313/96-02; 50-368/96-02 and was the subject of a noncited violation. No new issues were revealed by the LER.

O8.4 (Closed) Violation 50-368/9602-02, "Failure to Lock and Adequately Perform an Independent Verification of a Category E Valve"

The inspectors verified the corrective actions described in the licensee's response letter, dated June 20, 1996, to be reasonable and complete. No similar problems were identified.

O8.5 (Closed) LER 50-313/96-003, "Charcoal Filter Sample Analysis Not Done In Accordance with Technical Specification Requirements"

LER 50-313/96-003 was issued by the licensee following their discovery that the control room ventilation units did not meet the requirements of ANO Unit 1 TS 3.9.1. The control room ventilation/filtration system is a common system between Units 1 and 2, with different TS testing requirements for each unit. Because the control rooms are connected, the ventilation/filtration systems are considered shared and each unit's associated ventilation/filtration system must meet the TSs for both Units 1 and 2. The licensee's review indicated that the Unit 2 surveillance satisfied Unit 1 TSs, except for relative humidity requirements. The Unit 1 humidity requirement is 95 percent and the Unit 2 system was tested at 70 percent relative humidity. Because the Unit 2 ventilation system had not been tested at 95 percent humidity, the licensee declared Unit 2 control room ventilation inoperable for supporting the Unit 1 control room. The licensee sampled charcoal in the Unit 2 ventilation unit and found that it met the Unit 1 surveillance requirement and declared the system operable. The licensee revised the procedures for testing the charcoal beds and reviewed other ventilation systems to assure that they met licensing requirements. This nonrepetitive, licensee-identified and corrected violation is being treated as a noncited violation, consistent with Section VII.B.1 of the NRC Enforcement Policy (50-313/9704-01).

II. Maintenance

M1 Conduct of Maintenance

M1.1 General Comments

a. Inspection Scope (62707)

The inspectors observed all or portions of the following maintenance activities:

- Unit 2 - Job Order 0095714, "Waste Gas System Modifications," on July 16, 1997
- Unit 1 - Job Order 00965615, "Inspection of Unit 1 Reactor Trip Module light failure," on June 16.
- Unit 1 - Modification 95-1012, "Main Generator Protective Relay Hardening." on July 16.

b. Observations and Findings

The inspectors found the work performed in these activities to be professional and thorough. All work was performed in accordance with procedures and the workers were knowledgeable on their assigned tasks. When applicable, appropriate radiological work permits were followed. The inspectors observed supervisory involvement in the activities and adequate foreign material exclusion controls.

In addition, see the specific discussions of maintenance observed under Section M1.2 below.

M1.2 Unit 1 - Main Generator Protective Relays Found De-energized

a. Inspection Scope (62707)

On July 16, 1997, the licensee discovered that power was not applied to a section of nonsafety-related main generator protective relaying. A plan was developed to re-energize the affected relays. Because of the potential for the work to trip the main generator, the inspectors monitored the corrective maintenance.

b. Observations and Findings

On July 16,1997, a control room operator observed that a lamp was not illuminated on the main generator negative phase sequence timer over-current relay. The licensee investigated the condition and determined that the power supply line for the associated relay was not energized. Further investigation determined that nine protective relays for the main generator were de-energized. All of the suspect

relays input to a generator lock-out device. Engineering and electrical maintenance reviewed the circuitry and verified that the lockout was operable and would function during a reactor trip, a reverse power condition, or a turbine trip. Additionally, the station auxiliary transformer would fast transfer to the startup transformer in the event of a turbine trip. The licensee determined that the de-energized relays were a result of a power supply jumper not being installed during a modification performed during Refueling Outage 1R13. The error was not detected during postmodification testing. The licensee was continuing their investigation to determine why the protective relaying was de-energized.

The de-energized relays went unidentified since the completion of the refueling outage, because overhead lighting in the vicinity of the related power indicating lamp gave the appearance that the relay circuit was energized. To preclude this event from recurring, the licensee is considering measures that will provide indication when portions of this circuitry become de-energized. The licensee resurrected and revised Design Change Package 95-1012 to re-energize the protective relays. The inspectors observed the jumper installation process and observed thorough peer checking and second verifications of corrective actions. Technicians, engineers, and management were sensitive to the potential for the work to cause a turbine trip. Precautions were taken to ensure that accidental actuation of operable relaying located in the same cabinet did not occur. Additional measures were provided that ensured that the affected components were not in the actuated condition when restored. The inspectors reviewed the associated electrical drawings and design change package and interviewed engineers, finding them to be knowledgeable about system operation.

c. Conclusions

Unit 1 technicians, engineering, and management were sensitive to the potential of inducing a main turbine generator trip when performing work to restore power to generator protective relaying found de-energized. Licensee personnel involved with the restoration process demonstrated good peer checking, second verification, and communications.

M1.3 General Comments on Surveillance Activities (61726)

The inspectors observed Unit 1 operators perform Procedure 1104.036, "Emergency Diesel Generator Operation," Supplement 2, "DG2 Monthly Test," on July 7, 1997, and found that the surveillance activity was performed according to the licensee's procedures by knowledgeable workers.

M8 Miscellaneous Maintenance Issues (92902)

M8.1 (Closed) Violation 50-368/9601-02, "Inadequate Procedure for Installation of Mechanical-Driven Position Indicators and Failure to Perform an Adequate Test"

The inspectors verified the corrective actions described in the licensee's response letter, dated May 8, 1996, to be reasonable and complete. No similar problems were identified.

III. Engineering

E1 Conduct of Engineering

E1.1 Unit 1 - Main Feedwater Pump P-1A Discharge Pressure Swings

a. Inspection Scope (37551)

On June 23, 1997, the licensee noted that the discharge pressure on Main Feedwater Pump A was trending upwards and downwards slowly. The inspectors reviewed the licensee's root cause determination, engineering analysis, and corrective actions associated with the pressure swings.

b. Observations and Findings

The licensee observed pressure swings on instrumentation that provides input to the plant process computer and to feed pump control circuits. The sensing line configuration contains a pressure tap located on the discharge of the main feed pump, an associated isolation valve, and pressure transmitters. The pressure transmitters provide signals for circuitry associated with feed pump trip, feed pump recirculation valve opening logic, feed pump run-back, feed pump discharge pressure, and local indication. Normal discharge pressure is approximately 980 psig with 5 psig swings. The licensee observed that pressure slowly trended upwards 50 to 80 psig, stabilized, and then returned to normal. The duration of the transients varied between 10 and 30 minutes and occurred between 11 a.m. and 3 p.m. on several days. The licensee observed that the transient affected all the instrumentation on the associated sensing line equally. The licensee postulated that the sensing line isolation gate valve had a stem-to-disc separation and was closed or that blockage had formed in the sensing line upstream of the pressure instruments. The licensee deduced that changing ambient conditions during the hottest time of the day caused the isolated water to expand, resulting in the observed indications. To confirm the hypothesis, the licensee installed a temporary pressure gage on a drain connection in the feedwater header which was located close to the instrument pressure tap. Further observations showed that the pressure did not swing in the feed pump discharge header when the pressure increased in the instrument sensing line. Subsequent to this, the licensee installed temporary piping from the drain line where the temporary gage was installed to an

unused instrument isolation valve drain plug located in the suspect instrument header. The instrument header was aligned to the new location with the normal root valve closed. No anomalies were observed subsequent to the modification.

The inspectors concluded that the licensee's diagnosis of the event was accurate and engineering was innovative in their corrective actions. The inspectors determined that the licensee was thorough in their review of safety significance, effects on plant operations, TSs, SAR, and operability requirements. The licensee was aware of the potential effects on feed pump operation and had provided operators with both written and verbal guidance for response to feedpump runback and trip conditions. The inspectors also reviewed the licensee's testing requirements for the temporary modification and found them to be consistent with the requirements for feedwater system components.

b. Conclusions

Engineers accurately diagnosed the cause of pressure swings in the Unit 1 main feedwater pump discharge pressure and implemented innovative corrective actions. The licensee thoroughly evaluated the implications of the pressure swings and established guidance to operators in the event of a feed pump transient.

E8 Miscellaneous Engineering Issues (92902)

E8.1 (Closed) Unresolved Item 50-368/9601-01, "Decalibration of Logarithmic Power Channels"

a. Inspection Scope (92903)

NRC Inspection Report 50-313/96-01; 50-368/96-01 documented the discovery that decalibration effects, including power roll, temperature shadowing, and boron concentration had not been previously accounted for in the procedures for calibrating the logarithmic power channels or in establishing the reactor trip setpoint associated with the high logarithmic power trip. The decalibration factors were nonconservative in nature and could have potentially caused a trip to occur at a higher power level than accounted for in the safety analyses. On February 9, 1996, Combustion Engineering recommended that the licensee reduce the instrument setpoint by a factor of ten in order to bound the nonconservatism and ensure that safety limits would not be exceeded while they performed further analyses. The licensee reduced their high logarithmic power trip setpoint by one decade and planned to conduct further analysis to quantify the effect on the reactor trip setpoints. The inspectors reviewed the licensee's followup actions taken to address this issue and the licensee's compliance with TS due to the decalibration of the high logarithmic power channels.

b. Observations and Findings

The high logarithmic power trip function is an analog trip designed to protect against an uncontrolled control element assembly withdrawal (CEAW) from a subcritical condition. Although the trip function is only credited at low power levels (≤10E-4 to 2 percent rated thermal power), the log channel instrument calibration is performed at 100 percent power.

TS 2.2.1 requires a trip setpoint for the logarithmic power level - high of ≤0.75 percent of rated thermal power. SAR, Amendment 13, paragraph 15.1.1, states, in part, that "the RPS is designed to prevent such a transient (CEAW) from resulting in a minimum DNBR of less than 1.25 by a high logarithmic power level reactor trip when the power exceeds two percent full power." The difference between the trip setpoint and the 2 percent value is to account for instrument uncertainty. This difference is acknowledged in SAR Section 15.1.1.3. The 2 percent value is known as the analytical setpoint.

The analytical setpoint is used in the analysis of record as the trip setpoint to demonstrate that the safety limits are not exceeded. The analytical setpoint forms the basis for the physical trip setpoint. The physical trip setpoint (0.75 percent power) is determined such that, when instrument uncertainties and response times are accounted for, a trip is ensured before the analytical setpoint is reached.

In its April 15, 1996, letter to the NRC, Combustion Engineering concluded that, because of the "discretionary conservatism" built into the input parameters for the one affected safety analyses (CEAW), the original high logarithmic power trip setpoints remained acceptable without creating the potential to exceed a safety limit.

Combustion Engineering and ANO determined that, with the decalibration which occurs between full power and the log power scale, it could no longer be ensured that a trip occurred before actual power reached 2 percent. Accounting for the decalibration, it could now only ensure a trip would occur before 4 percent actual power. The change from 2 to 4 percent was the "discretionary conservatism" referenced in the April 15, 1996, letter.

On July 10, 1996, the licensee revised Procedure 2102.002, "Plant Heatup," to return the trip setpoint for the logarithmic power level - high to ≤0.75 percent of rated thermal power. The inspectors identified that the licensee failed to perform a safety evaluation required by 10 CFR 50.59 to determine if the change in setpoint involved an unreviewed safety question. This evaluation was required since the revision resulted in a change to the SAR, that is, a change in the analytical setpoint from 2 to 4 percent. The inspectors found that an analyses did exist which determined that, with an analytical setpoint of 4 percent, safety limits would not be exceeded. The licensee subsequently performed a 10 CFR 50.59 safety analysis, which concluded that an unreviewed safety question did not exist. The failure to

perform a written safety evaluation to provide the bases for determining that the change in setpoint did not involve an unreviewed safety question and was determined to be a violation of 10 CFR 50.59 (50-368/9704-02).

In response to this finding, the licensee initiated Condition Report C-96-0191. The licensee determined that a review had been performed prior to changing the procedure to determine if the change resulted in a change to the facility as described in the SAR. However, this review was not broad enough and failed to identify that the change in the analytical setpoint would require a change to the SAR. Therefore, no safety evaluation was performed to determine if the change resulted in an unreviewed safety question. Corrective actions taken to address this error included issuing guidance to personnel who conduct 10 CFR 50.59 reviews on performing more effective searches of the licensing basis documents. In addition, the licensee planned to revise procedures to require a secondary review to verify the accuracy of the licensing basis documents.

c. Conclusions

The licensee's failure to perform a safety evaluation prior to adjusting the logarithmic power level - high trip setpoint was determined to be a violation of 10 CFR 50.59. Once a safety evaluation was performed, the licensee determined that the change did not involve an unreviewed safety question.

IV. Plant Support

R1 Radiological Protection and Chemistry Controls

R1.1 General Comments (71750)

During routine tours of the plant and observations of plant activities, the inspectors found that access doors to locked high radiation areas were properly locked, areas were properly posted, and personnel demonstrated proper radiological work practices.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Licensee

B. Allen, Maintenance Manager, Unit 2
C. Anderson, Plant Manager, Unit 2
G. Ashley, Licensing Supervisor
J. Clement, Shift Supervisor, Unit 1
M. Cooper, Licensing Specialist
P. Dietrich, Maintenance Manager, Unit 1
C. Abeyance, Mechanical Superintendent, Unit 2
R. Fuller, Operations Manager, Unit 1
R. Hutchinson, Vice President, Nuclear Operations
J. Kowalewski, System Engineering Manager, Unit 1
R. Lane, Director, Design Engineering
R. McBride, Shift Superintendent
D. Mims, Director, Licensing
T. Mitchell, Manager, Unit 2 System Engineering
T. Russell, Operations Manager, Unit 2
J. Smith, Superintendent, Radiation Protection
J. Vandergrift, Director, Quality

INSPECTION PROCEDURES USED

IP 37551:	Onsite Engineering
IP 61726:	Surveillance Observatons
IP 62707:	Maintenance Observations
IP 71707:	Plant Operations
IP 71750:	Plant Support Activities
IP 92700:	Onsite Followup of Written Reports of Nonroutine Events at Power Reactor Facilities
IP 92901:	Followup - Plant Operations
IP 92902:	Followup - Maintenance
IP 92903:	Followup - Engineering
IP 93702:	Prompt Onsite Response to Events at Operating Power Reactors

ITEMS OPENED AND CLOSED

Opened

50-313/9704-01	NCV	Inoperable Unit 2 Control Room Shared Ventilation for the Unit Control Room (Section 08.5)
50-368/9704-02	VIO	Failure to Perform 10 CFR 50.59 Safety Evaluation for Decalibrated Logarthmic Power Channels (Section E8.1)

Closed

50-368/95-004	LER	Control Room Emergency Ventilation System Actuation Due to Elevated Background Radiation Levels Which Resulted from the Failure to Fully Consider the Potential Effects of Performing an Evolution Known to Produce Elevated Airborne Levels (Section 08.1)
50-368/9507-01	VIO	Failure to Utilize Procedures Resulting in Extensive Radiological Contamination of the Unit 1 Service Air System (Section 08.2)
50-368/96-001	LER	Flow Rate For Auxiliary Building Ventilation Gaseous Effluent Monitor Instrumentation Was Not Estimated as Required by Technical Specifications Due to Inadequate Training Regarding Ventilation Flow Adjustment (Section 08.3)
50-368/9602-02	VIO	Failure to Lock and Adequately Perform an Independent Verification of a Category E Valve (Section 08.4)
50-313/96-003	LER	Charcoal Filter Sample Analysis Not Done In Accordance with Technical Specification Requirements (Section 08.5)
50-313/9704-01	NCV	Inoperable Unit 2 Control Room Shared Ventilation for the Unit Control Room (Section 08.5)
50-368/9601-02	VIO	Inadequate Procedure for Installation of Mechanical-Driven Position Indicators and Failure to Perform an Adequate Test (Section M8.1)
50-368/9601-01	URI	Decalibration of Logarithmic Power Channels (Section E8.1)

LIST OF ACRONYMS USED

CEAW	control element assembly withdrawal
EFIC	emergency feedwater initiation and control
EFW	emergency feedwater
LER	licensee event report
RPS	reactor protection system
SAR	Safety Analysis Report
TS	Technical Specification