



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

Report Nos.: 50-348/89-20 and 50-364/89-20

Licensee: Alabama Power Company
600 North 18th Street
Birmingham, Al. 36291

Docket Nos.: 50-348 and 50-364

License Nos.: NP-2 and NPF-8

Facility name: Farley 1 and 2

Inspection Conducted: August 1 - September 10, 1989

Inspection at Farley site near Dothan, Alabama

Inspectors: *G. F. Maxwell* 10/2/89
G. F. Maxwell, Senior Resident Inspector Date Signed

W. H. Miller, Jr. 10/2/89
W. H. Miller, Jr., Resident Inspector Date Signed

Approved by: *F. S. Cantrell* 10/2/89
F. S. Cantrell, Section Chief Date Signed

Assisting Inspectors: B. Breslau, N. Economos, B. L. Holbrook, M. J. Morgan,
W. W. Stansberry

SUMMARY

Scope:

This routine onsite inspection involved a review of operational safety verification, monthly surveillance observation, monthly maintenance observation, and licensee plans for coping with strikes.

Results:

Within the areas inspected, the following unresolved item was identified: Requirements for detecting radioactive contamination in condensate pump discharge flow path - paragraph 3.b.3.

Certain tours were conducted on deep backshift, holidays or weekends, these tours were conducted on August 7, 15, 16, 28, and September 4 (deep backshift inspections occur between 10:00 p.m. and 5:00 a.m.).

Other inspections conducted during this period: July 31 - August 4, Report No. 89-14, Security Inspection; August 21-15, Report No. 89-19, Training Inspection; August 28 - September 1, Report No. 89-21, Followup on ISI and Maintenance Open Items.

Report No. 348,354/89-14 identified potential problems which the licensee noted during the Self Initiated Safety Assessment (SSSA) Team evaluation conducted on the service water system. During this reporting period the inspectors documented a CCW system concern which the SSSA identified. The potential problem with the CCW system involves the pressure control valve which is associated with the RHR pump seal coolers and instrument air. The findings identified by SSSA are scheduled to be discussed with NRC Region II management in a meeting to be held between Alabama Power Company at the Regional Office on September 12, 1989. Additional concerns were identified involving the increased loading on the diesel generator as a result of the corrective action for the CCW system and the training provided for fire watch duty.

A strength was identified in the operations area which was attributed to the prompt and decisive actions taken by Unit 1 plant operators when isolating a service water leak in one of the containment coolers.

REPORT DETAILS

1. Licensee Employees Contacted

R. G. Berryhill, Systems Performance and Planning Manager
C. L. Buck, Plant Modification Manager
L. W. Einfinger, Administrative Manager
R. D. Hill, Assistant General Manager - Plant Operations
D. N. Morey, General Manager - Farley Nuclear Plant
C. D. Nesbitt, Technical Manager
J. K. Osterholtz, Operations Manager
L. M. Stinson, Assistant General Manager - Plant Support
J. J. Thomas, Maintenance Manager
L. S. Williams, Training Manager

Other licensee employees contacted included, technicians, operations personnel, maintenance and I&C personnel, security force members, and office personnel.

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

2. Plant Status

Unit 1

Unit 1 operated at approximately 100 percent reactor power throughout the reporting period.

Unit 2

Unit 2 operated at approximately 100 percent reactor power throughout the reporting period.

3. Operational Safety Verification (71707)

a. Plant Tours

The inspectors conducted routine plant tours during this inspection period to verify that the licensee's requirements and commitments were being implemented. Inspections were conducted at various times including week-days, nights, weekends and holidays. These tours were performed to verify that: systems, valves, and breakers required for safe plant operations were in their correct position; fire protection equipment, spare equipment and materials were being maintained and stored properly; plant operators were aware of the current plant status; plant operations personnel were documenting the status of

out-of-service equipment; there were no undocumented cases of unusual fluid leaks, piping vibration, abnormal hanger or seismic restraint movements; all reviewed equipment requiring calibration was current; and general housekeeping was satisfactory.

Tours of the plant included review of site documentation and interviews with plant personnel. The inspectors reviewed the control room operators' logs, tag out logs, chemistry and health physics logs, and control boards and panels. During these tours the inspectors noted that the operators appeared to be alert, aware of changing plant conditions and manipulated plant controls properly. The inspectors evaluated operations shift turnovers and attended shift briefings. They observed that the briefings and turnover provided sufficient detail for the next shift crew and verified that the staffing met the IS requirements.

Site security was evaluated by observing personnel in the protected and vital areas to ensure that these persons had the proper authorization to be in the respective areas. The inspectors also verified that vital area portals were kept locked and alarmed. The security personnel appeared to be alert and attentive to their duties and those officers performing personnel and vehicular searches were thorough and systematic. Responses to security alarm conditions appeared to be prompt and adequate.

Selected activities of the licensee's radiological protection program were reviewed by the inspectors to verify conformance with plant procedures and NRC regulatory requirements. The areas reviewed included: operation and management of the plant's health physics staff, ALARA implementation, Radiation Work Permits (RWPs) for compliance to plant procedures, personnel exposure records, observation of work and personnel in radiation areas to verify compliance to radiation protection procedures, and control of radioactive materials.

b. Plant Events and Observations

1. Inoperable Emergency Notification System - Incident Report 1-89-264.

On August 2, at approximately 11:20 a.m., the Unit 2 shift supervisor received a call from the Houston County Emergency Management Agency stating that the telephone actuation of the tone alert radio emergency alarm system was inoperable. The tone alert radio system is part of the public prompt notification system. The shift supervisor promptly notified the site emergency coordinator, NRC resident inspector and NRC emergency operations center. The call to the NRC was made via the emergency notification system (red phone) at 11:50 a.m. The licensee stationed personnel at the micro-wave building at

11:55 a.m. to manually activate the tone alert radio system in the event of an emergency while the system was inoperable. The licensee's telephone maintenance personnel investigated and found an open conductor in the telephone cable between Dothan and Headland. Repairs were made and the system was returned to service at 10:42 p.m. on August 2.

The inspectors reviewed the circumstances associated with this event and found that the system was promptly repaired when found inoperative and that the NRC was notified appropriately. The inspectors had no further questions on this event.

2. RWST Boron Sample

At 8:00 a.m., on August 21, the weekly water sample was taken from the RWST. This sample was analyzed by chemistry at 11:30 a.m. and the boron concentration was found to be 2272 ppm. TS Section 3.1.2.6 requires the boron concentration in the RWST to be maintained between 2300 and 2500 ppm. Since the boron concentration appeared to deviate from the TS requirements, the licensee immediately took another sample at 12:20 p.m. An analysis of this sample at 1:00 p.m. found the boron concentration to be 2278 ppm which was below the TS minimum limit. At 1:20 p.m. circulation of the water solution in the RWST was initiated by using RHR pump 2A and the refueling water purification pump. Another sample was taken from the RWST at 2:45 p.m. and the analysis of this sample indicated that the boron concentration was 2386 ppm. Two additional samples were taken at 30 minute intervals and indicated a boron concentration of 2397 ppm. This met the TS requirements.

A review of recent samples taken from the RWST indicated a downward trend in the boron concentration. On August 14, the concentration was 2326 ppm which was only slightly greater than the TS minimum of 2300 ppm. It appears that the boron within the RWST became stratified since the water within the tank had not been recirculated within the past month.

To assure that boron concentrations within the RWST are maintained within the TS limits, the licensee has revised procedure O-CCP-202, Water Chemistry Specification, to require the boron concentration in the RWST to be maintained between 2350 and 2450 ppm. Furthermore, the procedure requires the plant chemist to immediately advise the shift supervisor if the chemical analysis indicates that the boron concentration is out of these administrative control limits. To prevent boron stratification the RWST water will be periodically recirculated.

The licensee's staff took immediate action to resolve the inspectors concerns on this matter and had initiated appropriate action to maintain RWST boron concentrations within the TS limits. The inspectors have no further questions at this time.

3. Condensate and Feedwater System

During a walkdown and review of the condensate and feedwater system, the inspectors observed that the hotwell flush or condensate pump discharge flow path is frequently used to maintain chemistry in the secondary system. This system discharges into the river via the service water discharge piping system. There are no radiation monitors in this flow path to detect radioactive contamination in the event of a primary to secondary leak. Also there does not appear to be a plant procedure to monitor the flow through this system to check for possible radioactive contamination. FSAK sections 10.4.5 and 11.3 do not appear to adequately address this feature. The inspectors discussed this concern with the licensee, and the licensee will conduct an evaluation to determine what actions are required. This item is identified as unresolved item 348,364/89-20-01, Requirements for Detecting Radioactive Contamination in Condensate Pump Discharge Flow Path, pending the completion of this evaluation.

4. Turbine Building Fire

The inspectors investigated the circumstances associated with a turbine building fire that occurred on August 22.

On the morning of August 22, contractor iron workers and welders were installing security grating on the east wall of Unit 2 turbine building. Fire watch personnel were posted both inside and outside of the building as stipulated by the Hot Work Permit. At approximately 10:25 a.m., the inside fire watch noticed smoke coming from the turbine building wall panels located approximately 28 feet north of column line T-12.5 along column line T-A about 10 feet above the floor. The inside fire watch attempted to call the control room by using the plant phone system but was unable to reach the control room since he did not know the number and the number was not posted on the phone. Another fire watch inside the turbine building attempted to extinguish the fire by using a portable fire extinguisher. The outside fire watch noticed the discharge from the inside fire watch's extinguisher. He obtained a fire watch relief and went inside the turbine building to determine the problem. After learning of the fire, he returned to discharge his extinguisher in the affected area to help extinguish the fire.

The inside fire watch was unable to contact the control room; therefore, he notified a licensee employee who promptly notified the control room. The plant fire alarm was received and fire brigade was requested to respond to the fire at 10:30 a.m. Eight fire brigade members and several other personnel responded to the fire. A 1-1/2 inch fire hose from an interior turbine building hose station and a 2-1/2 inch fire hose from an exterior fire hydrant were advanced to the fire location. Water from both hose lines was used to extinguish the fire. The fire was considered extinguished at 10:49 a.m.

Subsequent investigation determined that the fire was caused by heat from welding operations being conducted on the exterior wall of the turbine building which ignited a tar coated fiberboard seal in the wall panel. To prevent recurrence, future welding on this wall will utilize wetted fire resistant cloth to protect adjacent tar and fiberboard. A shop work order has been written to inspect all plant phones to ensure that they have a sticker on them listing the control room numbers for use in the event of an emergency. Flour, the contractor, has been requested to discuss the proper use of plant phones and Gai-tronics phones in their bi-weekly safety meetings to report a fire or any other emergency situation to the control room.

The response to this event was slightly delayed due to the contractor employee not having access to phone numbers for use in the event of an emergency. However, once the control room was notified the fire brigade response, fire fighting operations and followup activities were satisfactory. Fire fighting operations prevented fire spread and limited damage to only a very small portion of the fiberboard in the wall. The inspectors will monitor corrective actions taken to train fire watches on control room notifications. Pending resolution, this item is identified as Inspector Followup Item 348,364/89-20-03, Instruction to fire watch for notifying control room were inadequate.

5. Plant Vent Stack Radiation Alarm - Unit 1

The inspectors were observing control room evolutions on August 22, when radiation monitors R-14 and R-22 in the Unit 1 plant vent stack alarmed indicating high radiation in the stack. The reactor operators promptly acknowledged the alarms and implemented the plant emergency procedures. The counting room was contacted. Procedure EIP-9, Radiation Exposure Estimation and Classification of Emergencies, was used to calculate estimated off-site radiation exposure as a result of the radioactive material released and to determine the appropriate protective actions.

The dose calculations at the site boundary were found to be $4.14E-5$ mrem/hr for iodine. These limits were less than the TS radiological effluents specified to meet the Notification of an

Unusual Event (NOUE) emergency classification of $5.7E-2$ mrem/hr for noble gas and $1.7E-4$ mrem/hr for iodine. Therefore, the release limits were below the levels that required any emergency actions or notifications.

An investigation to determine the cause of the high radiation alarms found that the excess pressure safety relief diaphragm on the recycle evaporator condenser unit ruptured due to high pressure in the evaporator. The diaphragm disk is designed to rupture at a pressure of 15 psi and discharge to the plant vent stack through a 4 inch pipe. The excess pressure was created when auxiliary steam leaked past steam admission valve PCV 316 to the recycle evaporator due to a leaking valve seat. The resultant heat increased the pressure in the evaporator, absorption tower and evaporator condenser. This heat continued to increase the pressure in the system until the safety pressure relief disk for the evaporator ruptured. Valve PCV 316 is throttled to maintain the operating pressure on the recycle evaporator. This valve is not designed for positive seating and the seat normally leaks after long usage. Closure of the manual valve upstream of the flow control valve would provide assurance of eliminating steam flow to the evaporator when desired. The inspectors reviewed the licensee's action and had no further questions.

6. Receipt Inspection of New Fuel

The inspectors witnessed the receipt inspection of new fuel on August 2 for Unit 1 fuel cycle 10. The Unit 1 refueling outage is scheduled to begin on September 23 and be completed November 7. The fuel inspection was performed using procedures O-RCP-53, Receipt of New Fuel, and O-FHP-3.0, Receipt and Storage of New Fuel. No discrepancies were noted.

7. Security Work Schedules

A concern was addressed to the inspectors about the use of overtime work hours by security employees. Security employees were previously permitted to work overtime hours without any formal restrictions. Reportedly, a number of security officers worked 12 to 16 hour days for several weeks without any days off. The inspectors discussed this concern with licensee management. Effective August 28, the licensee implemented a program, as documented by item 89-253 in the security "Pass-on" log, that normally no security individual will be permitted to work more than 72 hours in any seven day period. The security chief advised the inspectors on August 30, that the security

group will follow the same guidelines as those listed in procedure AP-64, Work Schedule for Personnel Performing Safety Related Functions. An individual will not be permitted to work more than 16 hours in any 24 hour period, nor more than 24 hours in any 48 hour period, nor more than 72 hours in any seven day period.

The inspectors reviewed the revised work schedule for security and had no further questions.

8. Operations 1989 Unit 1 Outage Schedule

The inspectors reviewed the approved work schedule for the September - November 1989 Unit 1 refueling outage. This five week schedule requires 12 hour shifts, except for eight hour shifts on training days. There are two work periods with seven consecutive 12 hour days and one work period with six consecutive 12 hour days scheduled. This results in two periods of 84 hours in seven days every five weeks. TS 6.2.2.f.3 limits the maximum work hours to 72 hours in a seven day period. Routine use of overtime for operations personnel in excess of 72 hours in any seven days appears to violate TS 6.2.2.f.3. This concern was previously discussed with the licensee in a management meeting conducted in the NRC Region II Office on July 31, 1989 and is currently identified as Unresolved Item 348,364/89-14-01, Apparent Excessive Work Hours for Licensee Operators. The licensee's continued practice of routinely exceeding the TS limits on working hours remains open pending resolution by RII/NRR.

9. Component Cooling Water (CCW) - Unit 1

On September 1, the inspectors were informed by the licensee that as a result of the Self Initiated Safety Assessment on the service water system a similar evaluation was conducted on the CCW system. During the evaluation of the CCW system, a potential design discrepancy was identified.

At Farley the CCW system is a closed system which operates during all phases of plant operations and shutdown. The emergency safe shutdown heat loads which are cooled by the CCW system include; charging pumps, spent fuel pool heat exchangers, RHR heat exchangers and the RHR pump seal coolers. Some of those loads which are supplied by the CCW system that are not classified as emergency loads include; excess letdown heat exchanger, seal water heat exchanger, waste gas compressors, and at least eight other system components.

The RHR pump seal coolers for Unit 1 are cooled by CCW and are designed for a maximum pressure of 100 psig. During a LOCA the inlet pressure to these coolers is maintained by pressure control valves PC-3404A and PC-3404B. These valves are controlled at 60 psig by instrument air (non-safety related) and if air is lost, the valves fail fully open. With these valves fully open it could result in lifting the 100 psig relief valves which are installed just downstream of the pressure control valves. This could cause a loss of inventory to the CCW system, leading to a low CCW surge tank level and ultimately loss of suction to the CCW pumps. Under normal conditions the flow rate of the CCW system is about 7000 gpm with an inlet pressure of less than 100 psig. However, during a LOCA the secondary (non-emergency) heat loads for the CCW system would be isolated thus decreasing the CCW system flow-rate and increasing system pressure (to as much as 110 to 130 psig). If the instrument air was lost under these conditions then the RHR pump seal cooler relief valves could lift, inventory loss would occur, and loss of CCW flow would follow unless prompt operator action was taken. The potential overpressure condition appears to only effect Unit 1.

Until final action can be taken to resolve this potential design discrepancy, the licensee has implemented interim changes to the Unit 1 plant operating procedures affected by this condition. The changes require that upon indication of a SI signal and loss of instrument air that CCW flow will be established to both RHR heat exchangers by opening valves 3185A and 3185B. By opening these CCW inlet valves to the RHR heat exchangers, CCW flow rate will increase causing a marked decrease in CCW system pressure. If the 100 psig RHR pump seal cooler relief valves have lifted then this action would allow them to close. The inspectors question whether the additional flow will cause the diesel generators to see additional loading. Pending resolution, this item is identified as Inspection Follow Item, 348,364/89-20-04, Additional diesel generator load due to CCW flow increase during a SI and loss of Instrument Air.

Licensee management is scheduled to meet with NRC Region II management in the Regional office on September 12. At that time the above concern about the CCW system and other items identified by the Self Initiated Safety Assessment Team will be discussed.

10. Service Water Leak - Unit 1 Containment Cooler

On September 7, the inspectors observed the performance of Unit 1 operators while they were locating and isolating a service water leak in the containment building. The leak was discovered at

about 9:25 a.m. and the operators took prompt action in locating and isolating the leak. The operators scanned the indicators for the primary and secondary system and quickly determined that the leak was coming from the "B" containment cooler. The SW to the cooler was isolated and the Shift Supervisor directed that a WR be generated to inspect the containment for any damages which could have occurred as a result of the leak and then inspect to locate the cause of the leak. There was no equipment impaired by the leak and it resulted from freeze plug failure on the SW line to the "B" containment cooler. A WR was issued to promptly repair the freeze plug opening. The repairs were completed and the cooler was satisfactorily tested and returned to service.

No violations or deviations were identified. The results of the inspections in this area indicate that the program was effective with respect to meeting the safety objectives. The prompt and decisive action taken by the operators while isolating the Unit 1 containment cooler SW leak was considered as a strength in the operations area.

4. Monthly Surveillance Observation (61726)

The inspectors witnessed the licensee conducting maintenance surveillance test activities on safety-related systems and components to verify that the licensee performed the activities in accordance with TS and licensee requirements. These observations included witnessing selected portions of each surveillance, review of the surveillance procedures to ensure that administrative controls and tagging procedures were in force, determining that approval was obtained prior to conducting the surveillance test and the individuals conducting the test were qualified in accordance with plant-approved procedures. Other observations included ascertaining that test instrumentation used was calibrated, data collected was within the specified requirements of TS, any identified discrepancies were properly noted, and the systems were correctly returned to service. The following specific activities were observed:

0-STP-54.1	Fire Pump Operability Test - Pump 2
0-STP-80.1	Diesel Generator 1-2A Operability Test
0-STP-80.1	Diesel Generator 1B Operability Test
0-STP-80.2	Diesel Generator 1C Operability Test
1-STP-62.0	Main Turbine Valve Operability Test
1-STP-913.0	Underfrequency Test of Reactor Coolant Pump 1B
2-STP-416	RWST Boron Sample
2-STP-627.2	Leak Test of Containment Purge System

a. Fire Pump

The inspectors witnessed test 0-STP-54.1 of fire pump 2 conducted on August 2. The fire pump failed the test due to pump RPM speed not being consistent, caused by the diesel governor being out of adjustment. The pump governor was adjusted by the pump vendor and pump was satisfactorily retested.

b. Diesel Generators

On August 7, diesel generator 1C experienced a slow single header start during performance test of procedure O-STP-80.2. Diesel generator 1-2A experienced a slow single header start during performance of procedure O-STP-80.1 on August 21. However, both diesels started satisfactorily when restarted using a dual header start. Recently, the inspectors have witnessed several tests where the diesel generators started slow on a single header start. The licensee and the diesel vendor, Colt, are investigating the cause of these slow starts. The vendor has made several recommendations to help prevent slow starting of the diesels. These recommendations included: 1) more positive priming method should be incorporated into operations procedure to assure that the fuel supply to the diesels are kept primed, 2) the fuel supply foot valves in the day tanks should be cleaned quarterly, 3) a design change should be made to provide a positive vent for the fuel accumulators. The licensee is evaluating these recommendations. Pending resolution these items are identified as Inspector Followup Item 348,364/89-20-02, Modifications to Reduce Slow Start of Emergency Diesel Generators.

No violations or deviations were identified. The results of the inspections in this area indicate that the program was effective with respect to meeting the safety objectives.

5. Monthly Maintenance Observation (62703)

The inspectors reviewed the licensee's maintenance activities to verify the following: maintenance personnel were obtaining the appropriate tag out and clearance approvals prior to commencing work activities, correct documentation was available for all requested parts and material prior to use, procedures were available for all requested parts and material prior to use, procedures were available and adequate for the work being conducted, maintenance personnel performing work activities were qualified to accomplish these tasks, no maintenance activities reviewed were violating any limiting conditions for operation; during the specific evolution, the required QC hold points were implemented, post-maintenance testing activities were completed, and equipment was properly returned to service after the completion of work activities. Activities reviewed included:

- | | |
|------------|---|
| MWR 164296 | Perform accumulator vent line test while operating diesel generator 2B. |
| MWR 170821 | Repair hydraulic leak on radwaste compactor. |
| MWR 188701 | Repair leak on charging pump 1A discharge header drain valve. |

- MWR 203123 Lube & check for vibration on rod control drive motor generator set 1A.
- WA-W00311598 Inspect charging pump 2A using procedures GMP-9.0, 10.0, 19.0, and 20.
- WA-W00312406 Lube charging pump 2A.
- WA-W00313352 Maintenance of Emergency Light Units - Appendix R using procedure 1-EMP-1381.01.
- WA-W00313907 Routine 18 month maintenance inspection on diesel generator 1-2A using procedures O-MF-14.1, 14.4 and 14.11.
- WA-W00314146 Routine 18 month maintenance inspection on diesel generator 2E using procedure O-MP-12.2, 14.1, 14.4 and 14.11.

While observing repair operations to the waste compactor which was being performed under MWR 170821, the inspectors noted that two maintenance employees working in the contaminated area adjacent to the compactor were not equipped with a high range dosimeter. RWP 2-89-0299 required both low and high range dosimeters to be worn while working on this job. The inspectors questioned the employees and were advised that the HP staff had eliminated the need for the high range dosimeter. However, the HP foreman stated that the requirement to wear a high range dosimeter for this area had not been eliminated. The HP foreman immediately stopped this work and counseled the individuals about the need to follow the RWP procedures. The work area around the compactor was found to be a low radiation level and relatively clean and free of any significant contamination. A high range dosimeter was probably not required for this area; however, the RWP had not been revised and was still required to be followed.

This problem is similar to previous Violation 348,364/89-12-02, Violation of TS 6.11 requirements for failure of an operator to comply with RWP requirements when entering an area posted as a high radiation area. To prevent recurrence of this problem the licensee proposes to implement an RWP change authorization log which will be maintained in the work area with the RWP. This will clearly indicate the approved changes that have been made to the RWP. The licensee estimates that this change will be completed by September 1, 1989. Based on the low radiation level, no significant contamination, pending corrective action for a similar violation and prompt licensee actions following identification of this event, no violation is being issued.

No violations or deviations were identified. The results of the inspections in this area indicate that the program was effective with respect to meeting the safety objectives.

6. Licensee Plans For Coping With Strikes (92709)

During the week of August 14, the resident inspectors were assisted by regional inspectors in determining if the licensee had prepared an adequate contingency plan for coping with a potential strike condition. The evaluation included a review of the licensee's approved Strike Contingency Plan dated August 9, 1989; determining the quantity and type personnel affected by the strike; reviewing minimum requirements per shift for on-site staffing; review of the training and qualification program and training for those assigned to the various positions which could be affected by a strike; availability of support in the areas of security, transportation of goods and materials, medical care, and fire protection; verification that personnel were sufficient in number and qualifications to implement the site emergency plan; and verification that the licensee's safeguards contingency plan pertaining to strikes was adequate, this included verification that the Emergency Notification System would not be compromised.

The inspectors noted that if a strike occurred it would have an impact on plant management, operations and maintenance. In general the remaining groups are not in the union and would not be affected by the strike, these include; Chemistry and Radiation Protection, Administrative Controls, and Security. Based on this observation the inspectors placed more emphasis on the areas of management, operations, maintenance, and some special consideration was made for security and emergency preparedness.

The inspectors reviewed the licensee's plans for coping with a strike. This review evaluated the quantity and types of personnel who will be affected to ensure that the minimum requirements per shift for on-site staffing is capable of meeting the requirements for power operation. The Dinspectors further reviewed the training and qualification program to ensure that licensed personnel who will be engaged in licensed activities are qualified and proficient in these activities. Additionally, training and familiarization has been properly conducted for non-licensed personnel who may be performing functions other than their normally assigned duties. Results of this review are described in the following sections:

a. Strike Organization

The licensee has identified personnel to staff three shifts, two shifts would rotate on a 12 hour basis with the third shift supplementing the day shift. The basic routine would require each shift to stand five days of 12 hours, then take two days off before rotating between day shift and night shift or stand down from control room duties and supplementing the day shift.

The maintenance group would maintain its current organizational structure from the maintenance manager down through the staff supervisory level in the I&C, Electrical, and Mechanical Maintenance

groups. Ninety percent of the work force experience is composed of personnel who were formerly journeyman that have obtained foreman positions. This group also includes maintenance instructors from the training department. The remaining ten percent are engineering and technical personnel who would function as helpers, planners, or assist as directed.

This organizational structure is considered to be adequate to support safe plant operations.

b. Control Room Licensed Operators

The licensee identified 32 individuals who would staff three shifts of shift supervisors, shift foreman and plant operators to provide shift coverage for control room operations. Two shifts would rotate on a 12 hour basis with the third shift supplementing the day shift, their basic routine is described above.

Three of the proposed SS/SF personnel and three of the proposed plant operator personnel have reactivated their licenses by completing 40 hours of parallel watchstanding. Documentation has been forwarded to the facility's training group for retention. Two of the proposed SS/SF personnel had failed the last NRC administered requalification exam (6/19/89 through 6/26/89); however, both individuals have been placed in an accelerated requalification program. They have been retested and have resumed their normal shift duties.

The inspectors interviewed 10 proposed plant operators and determined that each felt confident with their proposed assignment. Additionally, the inspectors verified, through document review, that medical, fire brigade and respirator requirements were adequately met.

c. System Operators

The licensee has identified 27 individuals who would provide shift coverage for the auxiliary building, turbine building, diesel building, outside, and rover positions. The inspectors determined by reviewing training documentation and interviewing personnel, that 18 of these individuals satisfactorily completed their retraining program which included performance JPMs in June 1989. These 18 individuals have inactive license, and held either SS, SF or plant operator positions. Five others are in a hot license class which are scheduled to receive their final exam in October 1989. Each of these individuals are required to perform QRs, which serve the same purpose as JPMs. The remaining four system operators qualifications have been determined to be adequate to support shift operations. The inspectors determined that the experience level appears to be adequate to support continued plant operations should a strike occur.

d. Physical Security

The inspectors reviewed the licensee's Strike Contingency Plan, Physical Security and Security Contingency Plan to ensure that the plant emergency preparedness and security were maintained at a level consistent with proper plant integrity and operation.

It appears that the quality and quantity of personnel who would be operating the emergency response and security functions would be more than necessary to normally operate the plant and is capable of meeting regulatory requirements during a strike. Provisions were made with local law enforcement agencies to deal with nondocile strikers and to respond in the event of a threat to plant safety or security.

On September 5, the union voted to ratify a new contract with the licensee. As a result it was not necessary for the licensee to implement the Strike Contingency Plan.

No violations or deviations were identified. The results of the inspections in this area indicate that the program was effective with respect to meeting the safety objectives.

7. Exit Interview

The inspection scope and findings were summarized during management interviews throughout the report period and on September 11, with the plant manager and selected members of his staff. The inspection findings were discussed in detail. The licensee acknowledged the inspection findings summarized below and did not identify as proprietary any material reviewed by the inspector during this inspection.

<u>Item Number</u>	<u>Description</u>
89-20-01 (UNR)	Requirements for detecting radioactive contamination in condensate pump discharge flow path.
89-20-02 (IF1)	Modifications to reduce slow starts of emergency diesel generator.
89-02-03 (IF1)	Instruction to fire watch for notifying control room were inadequate.
89-20-04 (IF1)	Additional diesel generator loading due to CCW flow increase during a SI and loss of instrument air.

8. Acronyms and Abbreviations

AFW	-	Auxiliary Feedwater
AOP	-	Abnormal Operating Procedure
AP	-	Administrative Procedure
APCO	-	Alabama Power Company
CFR	-	Code of Federal Regulations
CCW	-	Component Cooling Water
DC	-	Design Change
DR	-	Deviation Report
ECP	-	Emergency Contingency Procedure
EIP	-	Emergency Plant Implementing Procedure
EQ	-	Environmental Qualifications
ESF	-	Engineered Safety Features
EWR	-	Engineering Work Request
F	-	Fahrenheit
GPM	-	Gallons Per Minute
ISI	-	Inservice Inspection
IST	-	Inservice Test
JPM	-	Job Performance Measure
LCO	-	Limiting Condition for Operation
MOV	-	Motor-Operated Valve
MOVATS	-	Motor-Operated Valve Actuation Testing System
MWR	-	Maintenance Work Request
NCR	-	Nonconformance Report
NRC	-	Nuclear Regulatory Commission
NRR	-	NRC Office of Nuclear Reactor Regulation
PSI	-	Pounds Per Square Inch
PSIG	-	Pounds Per Square Inch Gauge
PMD	-	Plant Modifications Department
QA	-	Quality Assurance
QC	-	Quality Control
QR	-	Qualification Record
RCP	-	Radiation Control and Protection Procedure
RCS	-	Reactor Coolant System
RHR	-	Residual Heat Removal
RWP	-	Radiation Work Permit
RWST	-	Refueling Water Storage Tank
SI	-	Safety Injection
SAER	-	Safety Audit and Engineering Review
SF	-	Shift Foreman
S/G	-	Steam Generator
SS	-	Shift supervisor
SSPS	-	Solid State Protection System
SOV	-	Solenoid Operated Valve
STP	-	Surveillance Test Procedure
SW	-	Service Water
TS	-	Technical Specification
TSC	-	Technical Support Center
WA	-	Work Authorization
WR	-	Work Request
UR	-	Unresolved Item