ENCLOSURE

SALP BOARD REPORT

# U.S. NUCLEAR REGULATORY COMMISSION

REGION II

# SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE

INSPECTION REPORT NUMBERS

50-348/85-06, 50-364/85-06

Alabama Power Company

Joseph M. Farley Units 1 and 2

August 1, 1983 through December 31, 1984

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### I. INTRODUCTION

The Systematic Assessment of Licensee Performance (SALP) program is an integrated NRC staff effort to collect available observations and data on a periodic basis and to evaluate licensee performance based upon this information. SALP is supplemental to normal regulatory processes used to ensure compliance with NRC rules and regulations. SALP is intended to be sufficiently diagnostic to provide a rational basis for allocating NRC resources and to provide meaningful guidance to the licensee's management to promote the quality and safety of plant construction and operation.

An NRC SALP Board, composed of the staff members listed below, met on February 20, 1985, to review the collection of performance observations and data and to assess the licensee performance in accordance with the guidance in NRC Manual Chapter 0516, "Systematic Assessment of Licensee Performance." A summary of the guidance and evaluation criteria is provided in Section II of this report.

This report is the SALP Board's assessment of the licensee's safety performance for the J. M. Farley facility for the period August 1, 1983 through December 31, 1984.

SALP Board for the J. M. Farley facility:

- R. D. Walker, Director, Division of Reactor Projects (DRP), Region II (RII) (Chairman)
- P. R. Bemis, Director, Division of Reactor Safety, RII
- K. P. Barr, Acting for the Director, Division of Radiation Safety and Safeguards, RII
- D. M. Verrelli, Chief, Projects Branch 1, DRP, RII
- O. D. Parr, Chief, Auxiliary Systems Branch, Division of Systems Integration, Office of Nuclear Reactor Regulation (NRR)

Attendees at SALP Board Meeting:

K. D. Landis, Chief, Technical Support Staff (TSS), DRP, RII

- W. Bradford, Senior Resident Inspector, J. M. Farley, DRP, RII
- D. S. Price, Reactor Inspector, TSS, DRP, RII
- T. C. MacArthur, Radiation Specialist, TSS, DRP, RII
- E. Reeves, Project Manager, Operating Reactors Branch 1, Division of Licensing, NRR

## II. CRITERIA

Licensee performance is assessed in certain functional areas depending upon whether the facility has been in the construction, preoperational, or operating phase. Each functional area normally represents an area which is significant to nuclear safety and the environment, and which is a normal programmatic area. Some functional areas may not be assessed because of little or no licensee activities or lack of meaningful observations. Special areas may be added to highlight significant observations. One or more of the following evaluation criteria were used to assess each functional area:

- A. Management involvement and control in assuring quality
- B. Approach to the resolution of technical issues from a safety standpoint
- C. Responsiveness to NRC initiatives
- D. Enforcement history
- E. Reporting and analysis of reportable events
- F. Staffing (including management)
- G. Training effectiveness and qualification

However, the SALP Board is not limited to these criteria and others may have been used where appropriate.

Based upon the SALP Board assessment, each functional area evaluated is classified into one of the three performance categories. The definitions of these performance categories are:

<u>Category 1</u>: Reduced NRC attention may be appropriate. Licensee management attention and involvement are aggressive and oriented toward nuclear safety; licensee resources are ample and effectively used so that a high level of performance with respect to operational safety or construction is being achieved.

<u>Category 2</u>: NRC attention should be maintained at normal levels. Licensee management attention and involvement are evident and are concerned with nuclear safety; licensee resources are adequate and are reasonably effective so that satisfactory performance with respect to operational safety or construction is being achieved.

Category 3: Both NRC and licensee attention should be increased. Licensee management attention or involvement is acceptable and considers nuclear safety, but weaknesses are evident; licensee resources appear to be strained or not effectively used so that minimally satisfactory performance with respect to operational safety or construction is being achieved.

The SALP Board has also categorized the performance trend over the course of the SALP assessment period. The trend is meant to describe the general or prevailing tendency (the performance gradient) during the SALP period. This categorization is not a comparison between the current and previous SALP ratings. It is a determination of the performance trend during the current

SALP period irrespective of performance during previous SALP periods. The categorization process involves a review of performance which occurred during the course of that period. The performance trends are defined as follows:

Improving: Licensee performance has generally improved over the course of the SALP assessment period.

Constant: Licensee performance has remained essentially constant over the course of the SALP assessment period.

Declining: Licensee performance has generally declined over the course of the SALP assessment period.

III. SUMMARY OF RESULTS

Overall Facility Performance

The Farley facility is managed by well qualified and experienced personnel. Senior plant managers hold active senior reactor operator licenses and the site is supported by a corporate organization that is composed of personnel who have extensive backgrounds in nuclear plant management and operations. The licensee remains responsive to NRC concerns and the organization is safety oriented. Strengths were identified in the areas of plant operations, radiological controls, maintenance, fire protection, emergency proparedness, refueling, training, and licensing activities. No weakness were identified.

Functional Area Ju	gust 1, 1982 - 1y 31, 1983	August 1, 1983 - December 31, 1984	Latest SALP Period
Plant Operations Radiological Controls Maintenance Surveillance Fire Protection Emergency Preparedness Security Refueling Training	1 1 Not Evaluated 2 1 1 Not Evaluated	1 1 2 1 1 2 1	Constant Constant Constant Constant Improving Constant Constant Constant
Quality Programs and Administrative Contro Affecting Quality Licensing Activities	1 2	2 1	Constant Constant

## IV. PERFORMANCE ANALYSIS

- A. Plant Operations
  - 1. Analysis

During the assessment period, inspections of plant operations were performed by the resident and regional inspection staffs.

The licensee had a positive nuclear safety attitude and exhibited no significant administrative, management control, or material problems. The licensee's supervisory staff was knowledgeable and proficient in day-to-day plant operations. Plant evolutions appeared to be well planned with established and realistic priorities. The licensee was quick to take corrective action when problems or violations were identified by NRC. The licensee has also demonstrated concern for items identified by the internal audit group. Corrective actions in these areas were prompt. The licensee's knowledge of regulations, guides, standards and generic issues was good, and interpretations of these documents and associated issues were conservative.

Licensee technical competence was well founded both in technical matters and general plant operations. The plant staff responded to plant trips and other operational events during this review period in a professional and competent manner. Daily conduct of business in the control room was performed in a professional manner. Access to the control room was controlled and limited to personnel conducting business in the control room. Radios and reading material not directly related to plant operation were not allowed in the control room or plant. Housekeeping in the control room and throughout the plant was good.

The licensee was well prepared at meetings with NRC. The licensee's staff was generally able to make immediate commitments or state the utility's position in a given area.

The qualifications of plant management exceeded NRC requirements. Senior plant managers, with one exception, held senior reactor operator licenses. Plant management was oriented towards safety and efficiency. This was demonstrated by the close supervision of plant operations. The plant was well managed with conscientious and capable personnel.

Licensee on-site evaluations were routinely performed to address, assess and correct reportable events. Licensee Event Reports (LERs), in general, contained adequate descriptions of the occurrences. The entries were correct and the coding agreed with the information in the narrative description. Similar occurrences were adequately referenced, and the licensee provided supplemental information when required.

The violations listed below were not considered to indicate significant programmatic deficiencies. Four violations, identified below as a, b, d and e, were the result of procedural problems. Violation c was the result of a personnel error.

Five violations were identified during this assessment period as follows:

a. Severity Level IV violation for inoperable containment spray loop 2A eductor from the chemical addition tank.

- b. Severity Level IV violation for failure to return the Unit 1 containment sump wide range level indicators to operable status after calibration as a result of an inadequate procedure.
- c. Severity Level IV violation for exceeding Technical Specification cooldown rate on the reactor coolant system.
- d. Severity Level V violation for two examples of inadequate procedures involving the 2B battery charger room cooler and the emergency diesel generator fuel oil day tank level indicator.
- e. Severity Level V violation for two examples of inadequate procedures involving a recirculation stop valve on the containment spray system and a spray additive tank recirculating stop valve.
- 2. Conclusion

4

Category: 1

Trend During This Period: Constant

3. Board Recommendations

Licensee management attention was aggressive in this area. Because of the number of violations identified in this area, the Board does not recommend that NRC staff resources applied to the routine inspection program be reduced.

- B. Radiological Controls
  - 1. Analysis

During the assessment period, inspections of radiological controls were conducted by the regional and resident inspection staffs.

The licensee's health physics staffing level was appropriate and compared well to other utilities having a facility of similar size. An adequate number of ANSI qualified licensee and contract health physics technicians were available to support routine and outage operations.

The performance of the health physics staff in support of routine operation and outage was good. No substantive issues were identified in this area.

Exposure control was effective during outages. The licensee provided appropriate shielding and included planning for ALARA considerations. There was good management involvement and support of health physics. The facility man-rem totals for calendar years 1983 and 1984 were 956 and 901, respectively. These values are less than the average of 1184 man-rem for a two-unit pressurized water reactor facility.

The Radiation Work Permit (RWP) program was revised during the evaluation period. Previously, RWPs were written to cover a very broad scope of work. This resulted in RWPs which were difficult to read and understand. The revised RWP program corrected these problems.

Earlier in the SALP period, the licensee's contamination monitoring program for individuals at the facility relied substantially on fixed detector monitoring booths rather than personal frisking. The friskers in the plant were used for quick scans. This practice was revised later in the SALP period and acceptable whole body personnel frisking techniques were required. A June 1984 violation involving two personnel who left a contaminated area without frisking may have resulted from the reduced emphasis on frisking.

During calendar years 1983 and 1984, the licensee disposed of a typical quantity of solid radioactive waste for a two-unit PWR facility: 17,941 and 16,156 cubic feet, for Units 1 and 2 respectively.

A confirmatory measurements inspection was conducted and utilized comparative analyses between the licensee and Region II facilities. Results were in agreement except for selected gaseous and liquid effluent split samples and Sr-90 and Fe-55 in spiked samples. Systematically high noble gas results and disagreements for I-133, Sr-90 and Fe-55 results for liquid effluents demonstrated the need for licensee evaluation of methodology and procedures utilized in these analyses. The need for corrective action was identified to prevent spurious alarming of the liquid waste effluent monitor. A previously identified item, verification of gas calibrations utilizing gaseous sources, was not completed. Licensee response to previous items, excluding evaluation of gas calibrations, was timely and adequate. All other aspects of the radwaste effluent, and radiological and chemical confirmatory measurements programs were adequate.

The J. M. Farley radiological control program continued to be well managed and effective. It reflected a high level of plant and corporate management attention and support.

Two violations were identified during this assessment period:

a. Severity Level IV violation for improperly using respirator protection factors for a respirator that personnel had not been fitted, tested or trained to wear.

- b. Severity Level IV violation for three examples of failure to comply with procedures involving failure to evaluate discrepancies between thermoluminescence dosimeters and pocket dosimeters, failure to perform required maintenance on breathing air systems and failure of individuals leaving a contamination control zone to frisk.
- 2. Conclusion

Category: 1

Trend During This Period: Constant

3. Board Recommendations

Licensee resources in this area were ample. The Board recommends that NRC staff resources applied to the routine inspection program be reduced.

### C. Maintenance

1. Analysis

During this assessment period, inspections of facility maintenance were performed by the resident and regional inspection staffs. Two inspections involved repair of steam generator feedwater line cracking, and one inspection involved repair of steam generator tube leaks.

Design change and maintenance programs were conducted in an acceptable manner. For both programs, the necessary work reviews were thorough and technically sound; procedures and plans were followed; conditions requiring corrective action were resolved in a timely and effective fashion; and records were adequately maintained and retrievable. The licensee's maintenance training and qualification programs were excellent. They are addressed further in the training functional area of this report. The licensee also had an adequate system for tracking and correcting NRC identified items.

The licensee was responsive to NRC concerns and conducted evaluations to identify and correct, if required, activities related to maintenance which appeared to be contrary to the prescribed function of equipment. An example of this was the licensee's action in contacting the Atwood Morrill Company when problems were found with the main steam isolation valves. Other examples of management initiative taken to correct an operating problem were evidenced during the split pin modification on Unit I and with problems associated with the diesel generators. Licensee responses to maintenance related and NRC issues were typically viable and acceptable. The licensee displayed a positive nuclear safety attitude and developed viable preventive and corrective maintenance programs. Maintenance activities exhibited evidence of adequate planning with established priorities. Maintenance procedures and policies were followed by the maintenance staff, except as noted in the violations listed below. Five violations were the result of procedural problems.

Five violations were identified during this assessment period.

- a. Severity Level IV violation for failure to ensure that purchased services conformed to procurement documents.
- b. Severity Level V violation for failure to follow approved procedures by not controlling the 2A and 2B containment air cooler fan annunciator links.
- c. Severity Level V violation for failure to implement procedures for the control of maintenance activities.
- d. Severity Level V violation for failure to ensure that equipment requiring calibration was labeled and a broken torque wrench was controlled.
- Severity Level V violation for failure to accomplish special welding processes in accordance with applicable criteria.
- 2. Conclusion

Category: 1

Trend During This Period: Constant

3. Board Recommendations

Licensee management in this area was dedicated to nuclear safety. The quality of the maintenance training program and use of laboratory "hands-on" training significantly contributed to the licensee's performance in this area. The Board does not recommend a change in inspection resources applied to the routine program in this area.

#### D. Surveillance

1. Analysis

During the assessment period, inspections of the operational surveillance program were performed by the resident and regional inspection staffs.

Routine plant surveillance related activities appeared to be planned and well defined. The licensee continuously upgraded the surveillance program. Review of surveillance activities was performed by prescribed licensee reviewers who were qualified to perform these activities. Review of surveillance records revealed that they were readily available, complete, and adequately maintained. On-site evaluations were routinely performed to address, assess and correct surveillance concerns. The licensee's on-site corporate Quality Assurance organization was heavily involved in the surveillance program.

The licensee was responsive to NRC concerns and conducted investigations to identify and correct, if required, activities related to the surveillance program.

Licensee Management involvement in Inservice Inspection (ISI) and Inservice Testing (IST) activities was adequate. Decision making was usually at a level that assured adequate review. Corporate management was involved in site activities, and reviews were timely, thorough and technically sound. Records were complete, well maintained, and readily available.

The licensee successfully completed the containment Integrated Leakrate Testing (ILRT) on Unit 1 during this evaluation period. A 24-hour ILRT followed by a 4-hour verification test was performed on Unit 1 in the period April 12-14, 1984. The test was witnessed by NRC and no significant problems were encountered.

The licensee's test report, submitted July 13, 1984, was reviewed by NRC. The report contained appropriate test results to support the successful computation of the Type A test. The report did not include Type B and Type C "as-found" leakage rates. The licensee has this data available on site and stated that this information would be incorporated in future test reports.

During this assessment period there was one trip on Unit 2 which involved maintenance test personnel. All other unplanned reactor shutdowns were by operations personnel.

Licensee response to NRC initiatives was timely and there were few long-standing regulatory issues attributable to the licensee. Understanding of technical issues was apparent with timely resolution. Viable, sound and thorough responses were offered.

Nine violations were identified during this assessment period. These violations represent 17 examples of procedural problems.

- a. Severity Level IV violation for four examples of failure to implement surveillance and operating procedures.
- Severity Level IV violation for four examples of procedure violations.

- c. Severity Level V violation for failure to establish measures for control of the battery hydrometer standard.
- d. Severity Level V violation for failure to calibrate ultrasonic testing instruments in accordance with procedures.
- e. Severity Level V violation for failure to incorporate a temporary change notice into a procedure.
- f. Severity Level V violation for an inadequate procedure.
- g. Severity Level V violation for three examples of failure to control special processes.
- Severity Level V violation for failure to specify intervals for calibration of certain instruments used in safety-related activities.
- Severity Level V violation for failure to establish an adequate surveillance procedure.
- 2. Conclusion

Category: 2

Trend During This Period: Constant

3. Board Recommendations

Performance in this area demonstrated the surveillance program was adequate; however, the licensee should place emphasis on ensuring that applicable procedures are technically adequate, properly approved and followed.

- E. Fire Protection
  - 1. Analysis

During the assessment period, inspections of the fire protection/ prevention program were performed by the resident and regional staffs. The licensee's procedures to implement the fire protection program were reviewed and found to have met the NRC guidelines and requirements. Procedures were provided to accomplish all surveillance requirements of the fire protection Technical Specifications, except that several of the Unit 1 fire detectors were omitted from the surveillance procedures; a number of fire protection shut off valves were omitted from the annual valve cycle test program; and the manual carbon dioxide hose reels in the auxiliary building were omitted from the carbon dioxide surveillance program. These items were identified below as violation a. A review of the completed test surveillance records indicated that, other than the above identified violation, the fire protection systems were being satisfactorily tested and maintained.

Implementation of the fire protection program was accomplished by a well qualified fire protection staff. A high quality fire brigade training program was provided by the licensee to assure that each brigade member was adequately trained for any type plant fire. Procedures were provided to assure that a sufficient number of qualified brigade members were available on site. General plant housekeeping was consistently found to be good. Fire protection systems were well maintained. However, during this assessment period, one of the fire pumps was required to be operated continuously due to leaks in the underground fire protection piping system which exceeded the capacity of the small jockey pump. This also resulted in portions of the plant fire alarm system being placed out of order to silence the fire pump running alarm. However, the licensee had implemented the appropriate action statements of the Technical Specifications. Subsequently, the licensee installed a larger size jockey pump, and restored the fire pumps and fire alarm system to normal automatic operation. The NRC also found several auxiliary building vertical cable trays without the required fire stops. This was identified as violation b below.

Management's involvement and control of the fire protection program elements were adequate. Identified problems were promptly reported to the NRC and corrected. Response to NRC initiatives was generally timely. Major fire protection violations have not been identified. Staffing and training of the fire protection program were adequate.

Two violations were identified during this assessment period:

- Severity Level V violation for failure to establish and implement test procedures.
- b. Severity Level V violation for failure to provide the required fire stops in vertical cable tray runs of over 20 feet.
- 2. Conclusion

Category: 1

Trend During This Period: Constant

3. Board Recommendation

A high level of performance was achieved in this area. The Board does not recommend a change in inspection resources applied to the routine program in this area.

#### F. Emergency Preparedness

### 1. Analysis

During the assessment period, inspections of emergency preparedness were performed by the regional and resident inspection staffs. These included observation of a full-scale and smallscale exercise, and routine inspections addressing emergency responses and related implementing procedures.

Routine inspections and exercise observations disclosed no significant problems in the emergency preparedness organization or staffing. The corporate emergency planning organization was adequately staffed and provided support to the plant. Key positions in the corporate and plant emergency response planning organization were filled. Corporate management was strongly committed to an effective emergency response program and senior corporate officials were directly involved in the annual exercises, drills, and followup critiques. The licensee has been responsive to the NRC initiatives on emergency preparedness issues.

Personnel assigned to the emergency preparedness organizations were adequately trained in required areas of emergency response. Training records of shift supervisors documented that required familiarization training was conducted in accordance with the emergency plans and implementing procedures. Individuals were cognizant of their responsibilities and authorities, and understood their assigned duties and functions during routine operations and simulated radiological emergency situations.

The following essential elements for emergency response were determined to be acceptable: Emergency Classification; Communications; Public Information; Shift Staffing and Augmentation; Emergency Response Training; Dose Projection and Assessment; Emergency Worker Protection; Post Accident Measurements and Instrumentation; Changes to the Emergency Preparedness Programs; and Annual Quality Assurance Audits of Corporate and Plant Emergency Planning Programs. The exercises demonstrated that the plan and required procedures could be effectively implemented by the licensee's staff, although several areas for improvement were noted by the NRC and the licensee.

No violations were identified regarding the emergency preparedness program plan, or procedures for their implementation; however, six items requiring licensee attention were identified during the assessment period. Four items related to stack particulate sample tubing, and the adequacy of the inventory of operable high range radiation survey meters available under postulated accident conditions. Two items were identified which addressed clarification of protective action decision making and the licensee actively pursued the resolution to these items. The licensee has been responsive to NRC initiatives, responses were sound, and assigned deadlines were consistently met. No violations were identified during this assessment period.

2. Conclusion

Category: 1

Trend During This Period: Improving

3. Board Recommendations

Licensee management involvement in this area was aggressive. The Board noted that the drill scenario weakness addressed in the previous SALP had been corrected. Because performance in this area has only recently been determined to be at a Category 1 level, the Board does not recommend a change in inspection resources applied to the routine program.

- G. Security and Safeguards
  - 1. Analysis

During the assessment period, inspections were conducted by the resident and regional inspection staffs. The licensee's approach to the resolution of technical issues was characterized by viable and thorough reviews, resulting in sound and conservative judgements. Responsiveness to NRC initiatives was adequate when problems of regulatory concerns were identified. One safeguards event was reported to the NRC during the assessment period which resulted in an enforcement conference relative to inadequate supervision of security response drills. Authority and responsibilities associated with security organization positions were identified, and the safequards training and qualification program was fully implemented with dedicated resources from the corporate office and the site.

Continuing problems exist in establishing and maintaining an operational intrusion detection and surveillance system. Delays, originally attributed to the vendor, necessitated the licensee's use of compensatory action for more than four years.

The violations described below were the result of security management's failure to review response drill scenarios prior to implementation, but are not indicative of a significant breakdown in the security program.

Three violations were identified during the assessment period:

- a. Severity Level IV violation for failure to control the access of a non-designated vehicle entering the protected area.
- b. Severity level IV violation for failure to control the access of an individual entering the protected area without his security bange.

- c. Severity Level V violation for failure to conduct an adequate response force drill.
- 2. Conclusion

Category: 2

Trend During This Period: Constant

3. Board Recommendation

Management attention in this area was evident. Aggressive management action is required to correct security equipment failures which cannot be permanently corrected by the vendors. The Board does not recommend a change in inspection resources applied to the routine program in this area.

#### H. Refueling

1. Analysis

During the assessment period, inspections of refueling activities on Unit 1 and Unit 2 were performed by the resident and regional inspection staffs. There were no equipment or material problems. The licensee followed management approved refueling procedures. The procedures were enhanced by monitoring up-to-date fuel status boards inside and outside containment. The licensee's safety audit engineer review group performed audits during the refueling period. The licensee scheduled and followed the refueling outage with the aid of flow and critical path charts. At the conclusion of each refueling outage the licensee conducted a complete review of completed work. Problem areas were identified and analyzed. Special attention was given to these areas for future refueling outage scheduling.

Surveillance tests performed after refueling to support restart of the reactor were adequate and acceptably performed. Test personnel and their immediate supervisors were knowledgeable of test content and intent.

Unit 1 spent fuel storage racks were modified during this assessment period. The original racks were replaced with high density units increasing the unit spent fuel storage capacity to 1407 assemblies. Unit 2 spent fuel racks were modified prior to the first refueling outage.

Two violations were associated with Unit 1 spent fuel storage rack modifications. These violations are listed in the maintenance functional area (violations a and d). Violation a involved the control of purchased services; violation d involved the control of calibrated equipment. 2. Conclusion

Category: 1

Trend During This Period: Constant

3. Board Recommendations

Licensee resources appeared to be ample in this area. The efficiency of outage management indicated good prior planning by the licensee. The Board does not recommend a change in inspection resources applied to the routine inspection program in this area.

- I. Training
  - 1. Analysis

During the assessment period, inspections were conducted by the resident and regional inspection staffs. General employee, reactor operator, senior reactor operator, and licensed operator requalification training was conducted in the new training center. The training was effectively implemented. The training staff was well trained and qualified.

During the assessment period, two licensing examination site visits were made. Ten Senior Reactor Operator (SRO), six Reactor Operator (RO) and one Instruction Certification (IC) candidates were examined. Nine of the SRO candidates, five of the RO candidates, and the IC candidate passed the examinations and were licensed by the NRC. No areas of generic weakness were noted in the candidates examined.

The maintenance training and qualification program appeared to be a contributing factor in the quality of work preparation and adherence to procedures. The new training facility provided facilities for classroom instruction in the various aspects of maintenance as well as plant systems. Practical "hands-on" training was accomplished in the various laboratory training facilities.

The plant specific simulator is in operation 16 to 20 hours each day for regualification and initial license training.

The training staff consists of 42 persons which includes support personnel. The staff is made up of a training Director (SRO), Sector Supervisor (SRO), five instructors (SRO), and five contract instructors who have been certified by NRC.

Specialized instruction is taught by non-licensed instructors who are proficient in their field such as diesel generators, turbo generators, chemistry, and maintenance related topics. Non-licensed personnel training consists of 21 weeks of classroom and laboratory training for instrumentation and control technicians, electricians, and mechanics. This training continues through plant scheduled outages and there is annual retraining. All of the above personnel must pass the annual retraining examination.

No violations were identified during this assessment period.

2. Conclusion

Category: 1

Trend During This Period: Constant

3. Board Recommendations

Management involvement in this area was aggressive. The Board does not recommend a change in inspection resources applied to the routine program in this area.

- J. Quality Programs and Administrative Controls Affecting Quality
  - 1. Analysis

During the assessment period, inspections in Quality Programs and Administrative Controls Affecting Quality were conducted by the resident and regional inspection staffs. Interviews with licensee personnel indicated that the quality assurance program was adequately stated and understood. Frequent corporate and site communication was evident and indicated that corporate quality assurance management was actively involved in site activities. A review of audits was conducted by NRC and auditing activities were determined to be complete and thorough. Audit findings were resolved within a reasonable time. Quality assurance records were well maintained and available for review.

Key staff positions had been identified and authorities and responsibilities for these positions were delineated in procedures. Staffing was adequate.

The Plant Operations Review Committee performed its Technical Specification (TS) on-site review functions adequately, meeting quorum and qualification requirements. Although this committee performed the required reviews, appropriate management controls were not always established to assure adequate completion of safety-related activities as indicated by the violations listed below. Violations b and c involve failure to perform written safety evaluations required by 10 CFR 50.59 to assure that proposed actions did not involve an unreviewed safety question or a change to the Technical Specification. Violations a and d involve failure to control systems and components as required by the accepted quality assurance program.

Four violations were identified during this assessment period:

- a. Severity Level IV violation for failure to control the operation of the Unit 2 service water valve for the diesel generators.
- b. Severity Level IV violation for failure to perform a written safety evaluation prior to transferring water from the spent fuel pool to the fuel transfer canal through the use of a submersible pump.
- c. Severity Level IV violation for failure to perform a written safety evaluation prior to installing temporary equipment.
- d. Severity Level IV violation for failure to control activities affecting quality.
- 2. Conclusion

Category: 2

Trend During This Period: Constant

3. Board Recommendations

Licensee resources applied to this area were reasonably effective. The Board does not recommend a change in inspection resources applied to the routine program.

- K. Licensing Activities
  - 1. Analysis

Performance in the area of licensing activities continued to demonstrate a high level of management involvement and control in assuring quality. Corporate management had a keen awareness of operating performance as evidenced by the appointment of the Senior Vice President for nuclear matters, and by the dividing of Assistant Plant Manager responsibilities for operations and administration into two separate management positions. Farley Unit 2 continued to evidence operational control of quality activities as evidenced by a cumulative capacity factor of approximately 84 percent (net) for the first three operating cycles including the first two refueling outages. The third operating cycle for Unit 2 concluded January 4, 1985, shortly after the end of this evaluation period.

Pursuant to the change to 10 CFR 50.91, effective May 6, 1984, 62 licensee requests were noticed, 50 license amendments were issued, and no public comments were received.

Licensee planning and prioritizing of requests for license amendments have continued to improve. Several meetings were held with licensee management early in the assessment period to obtain a mutual understanding of priorities and schedules to enable both licensee staff and Commission staff to utilize resources in a more effective manner. On the basis of this action, significant improvements were realized as evidenced by the reduction in licensing backlog of 31 actions even with an increase in the number of license requests in 1984. The licensee's continued cooperation in the periodic review meetings for all licensing actions in 1984 has been excellent. Improved licensee management attention to scheduling and prioritizing of licensee requests for Commission staff actions has been demonstrated. Many safetyrelated reviews were completed on a mutually acceptable schedule without impacting the licensee's site operation.

An example of specific licensing actions where the licensee's close management involvement was evidenced was in the environmental qualification of electrical equipment. The submittal included well stated, controlled, and explicit procedures for the control of equipment qualification activities. It was also significant that all the electrical equipment important to safety at the licensee's site had been qualified. No additional detailed justifications for continued operation were required.

The licensee's approach to the resolution of technical issues has included increased interaction with the NRC staff. Frequent visits, management discussions, and meetings have resulted in clearer understandings of safety issues. Sound technical approaches were taken by the licensee's technical staff toward their resolution. Conservatism was exhibited in relation to significant safety issues on a routine basis. Thoroughness in the approach to the technical issues has been demonstrated by the number and complexity of the licensing actions completed during this period as discussed above.

Consistently sound technical justification has been provided by the licensee for deviations from staff guidance. In the case of extending the allowable time to perform maintenance on movable control rods, the licensee noted a negative impact on safety with the existing shutdown requirements. Following extensive review among licensee site personnel, Westinghouse vendor personnel and licensee corporate personnel, a meeting was held with the Commission staff. At the meeting, the technical issue was resolved from a safety point of view. Subsequently, a license change was approved eliminating the restrictions which the Commission had imposed. The day-to-day communications between the licensee and NRC staff have also been beneficial to both organizations in the processing of licensing actions and minimizing the need for additional information.

The initial submittals and responses to NRC requests for information consistently met the projected schedules or a sound justification and a revised schedule were provided. The positive attitude of the licensee's technical staff in responding to NRC requests concerning safety issues consistently helped in achieving timely resolutions of safety issues in the licensing area.

The licensee continued to maintain an adequate licensing staff as reflected in the timely responses and in the quality of the submittals relating to licensing actions. In addition, the senior management changes, including the senior vice president position and the two assistant plant managers, should enhance the quality and timeliness of the licensee's submittals.

2. Conclusion

Category: 1

Trend During This Period: Constant

3. Board Recommendations

A high level of performance in this area was achieved.

## V. SUPPORTING DATA AND SUMMARIES

#### A. Licensee Activities

During the assessment period, refueling outages were conducted on both units and several modifications common to both units were completed. The reactor trip breakers were modified such that an automatic trip signal energizes the reactor trip breaker shunt trip coils as well as deenergizes the associated undervoltage coils. In addition, human factors engineering modifications were completed which upgraded the control room floor plan and operating areas. The J. M. Farley Nuclear plant training center and plant specific simulator were completed.

During the Unit 1 refueling outage from February 10, 1983 to April 23, 1983, feedwater pipe to nozzle cracks were found on all three steam generators. Interim corrective repairs were performed prior to restart with final corrective action under evaluation. The licensee replaced reheater moisture separator tube bundles and chevrons, and feedwater heaters 3A, 3B, 4A and 4B to eliminate copper for steam generator protection. During this outage, the licensee also completed installation of a reactor vessel head vent system and performed the five-year integrated leak rate test.

In September 1984, the licensee modified the Unit 1 spent fuel storage racks. The original racks were replaced with high density units increasing the unit spent fuel storage capacity to 1407 assemblies.

At the close of this evaluation period, Unit 1 had completed in excess of 250 days of continuous operation.

Unit 2 shut down for refueling on September 16, 1983, and returned to power on October 27, 1983. During the outage, the installation of a reactor vessel head vent system was completed, and modifications to the

main steam isolation valves were performed. Following restart from this outage the unit completed 280 days of continuous online operation. The unit was shut down on August 31, 1984, due to re-analysis of steam generator eddy current test results which required plugging of two tubes. The unit was restarted on September 18, 1984.

The Institute of Nuclear Power Operations (INPO) conducted one evaluation during this assessment period. Additionally, the Accreditation Board of the Institute of Nuclear Power Operations accredited Alabama Power Company for the operations training programs taught at Farley Nuclear Plant during this assessment

> System operator training (non-licensed) Operator license training (licensed) License upgrade training (licensed) Shift technical adviser training (non-licensed) Shift supervisor training (licensed) Licensed retraining (licensed)

B. Inspection Activities

During the assessment period, routine inspections were performed at the J. M. Farley facility. Areas inspected included, but were not limited to, facility operations, radiation protection/radiological controls, surveillance activities, maintenance activities, fire protection, emergency preparedness, security and safeguards, refueling activities, inservice inspection and quality assurance.

C. Licensing Activities

The assessment on licensing activities was based on the following licensing actions:

- Fire Protection Exemption Granted (two)
- Radioidine Protection Factor Exemption Granted
- Inservice Testing Relief for Check Valve Tests Granted (three)
- Inservice Inspection Additional Reliefs Granted (four)
- ISI Scheduled Extensions Granted (two)
- Equipment Qualification (EQ) Schedule Extensions Granted (two)
- Emergency TS Authorized (one)
- License Amendments Issued (forty-nine).

Significant amendments included:

- Deletion of Turbine Overspeed Valve Tests from Technical Specifications
- Deletion of River Water System and Change Diesel Generator Loads from Technical Specifications
- Auto Actuation of Shunt Trip
- Environmental Qualification of Electrical Equipment
- Alternate Shutdown System Design Review Appendix R

- Masonry Walls (IEB 80-11) Unit 1
- NUREG-0737 Technical Specifications Generic Letters (GLs) 82-16 and 83-37
- Change to Emergency Preparedness Audit Frequency (GL 82-17)
- Update Charcoal Filter Tests in Technical Specifications
- Removal of Snubber Tables from Technical Specifications (GL 84-13)
- Fuel Enrichment Technical Specifications
- Upgrade Meteorological Tower Technical Specifications
- Four One-Time Technical Specification Changes (three precluded shutdowns)
- New Primary Isolation Valve Leakage Criteria Technical Specifications
- Delete 8-Hour Work Day from Technical Specifications
- Reactor Coolant System High Point Vents
- Confirmatory Order Supplement 1 to NUREG-0737
- D. Investigation and Allegations Review

There were no significant investigations or allegation activities during the assessment period.

- E. Escalated Enforcement Actions
  - 1. Civil Penalties

None

Orders (Those relating to enforcement)

None

F. Management Conferences Held During Appraisal Period

A Management Meeting was held at the J. M. Farley site on January 12, 1984, to discuss the application of 10 CFR 50.48 and 10 CFR 50 Appendix R (Fire Protection).

An enforcement conference was held at the J. M. Farley site on October 30, 1984, to discuss inadequate supervision of a security response drill.

G. Review of Licensee Event Reports and 10 CFR 21 Reports submitted by the Licensee

During the assessment period, there were 73 LERs reported for Unit 1 and 46 LERs reported for Unit 2. The distribution of these events by cause, as determined by the NRC staff, was as follows:

Cause		Unit 1	Unit 2
Component	Failure	34	15
Design		3	1

Construction Expristion or				
Installation	3		0	
Personnel				
- Operating Activity	3		11	
- Maintenance Activity	6		2	
- Test/Calibration Activity	7		3	
- Other	1		1	
Out of Calibration	4		5	
Other	12		8	
TOTAL	73		46	

H. Inspection Activity and Enforcement

FUNCTIONAL	NO. OI V	VIOLATIONS	IN EACH III	SEVERITY	LEVEL
Plant Operations	2	3			
Radiological Controls		2			
Maintenance	4	1			
Surveillance	7	2			
Fire Protection	2				
Emergency Preparedness					
Security	1	2			
Refueling					
Training					
Quality Program and					
Administrative Contro	ls	4			
Affecting Quality					

TOTAL