
U. S. NUCLEAR REGULATORY COMMISSION
REGION II

SYSTEMATIC ASSESSMENT OF
LICENSEE PERFORMANCE
BOARD ASSESSMENT

ALABAMA POWER COMPANY

FARLEY NUCLEAR PLANT UNITS 1 and 2

DOCKET NUMBERS 50-348 and 50-364

JULY 1, 1981 THROUGH JULY 31, 1982

INSPECTION
REPORT NUMBERS

50-348/82-28, 50-364/82-28

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I. INTRODUCTION

A formal licensee performance assessment program has been implemented in accordance with the procedures discussed in the Federal Register Notice of March 22, 1982. This program, the Systematic Assessment of Licensee Performance (SALP), is applicable to each operator of a power reactor or holder of a construction permit (hereinafter referred to as licensee). The SALP program is an integrated NRC staff effort to collect available observations of licensee performance on a periodic basis and evaluate performance based on these observations. Positive and negative attributes of licensee performance are considered with emphasis placed on understanding the reasons for a licensee's performance in important functional areas, and sharing this understanding with the licensee. The SALP process is oriented toward furthering NRC's understanding of the manner in which: (1) the licensee directs, guides, and provides resources for assuring plant safety; and (2) such resources are used and applied. The integrated SALP assessment is intended to be sufficiently diagnostic to provide meaningful guidance to the licensee. The SALP program supplements the normal regulatory processes used to ensure compliance with NRC rules and regulations.

II. CRITERIA

Licensee performance is assessed in certain functional areas depending on whether the facility has been in the construction, preoperational, or operating phase during the SALP review period. These functional areas encompass a wide spectrum of regulatory programs and represent significant nuclear safety and environmental activities. A functional area may not be assessed because of little or no licensee activity in that area, or lack of meaningful NRC observations.

One or more of the following evaluation criteria were used to assess each functional area:

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

The SALP Board has categorized functional area performance at one of three performance levels. These levels are defined as follows:

Category 1: 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 such that a high level of performance with respect to operational safety or construction is being achieved.

Category 2: 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 such 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 such that minimally satisfactory performance with respect to operational safety or construction is being achieved.

The functional area being evaluated may have some attributes that would place the evaluation in Category 1, and others that would place it in either Category 2 or 3. The final rating for each functional area is a composite of the attributes tempered with judgment by NRC management as to the significance of individual items.

III. SUMMARY OF RESULTS

A. Overall Utility Evaluation

The Alabama Power Company's corporate nuclear division is strong and well managed. This organization is composed of senior managers who have an extensive background in nuclear plant management and operations, and are able to provide adequate support to the Farley facility. The licensee has been responsive to NRC concerns and the organization appears to be safety oriented. No significant utility weaknesses have been identified.

B. Overall Facility Evaluation - Farley 1 and 2

The Farley facility appears to be managed by well qualified and experienced personnel. Major strengths were noted in the areas of plant operations, radiological controls, maintenance, surveillance, emergency preparedness, security and safeguards, and refueling. All senior plant managers hold active senior reactor operator licenses and are knowledgeable of the intricacies of plant operations, maintenance, radiation protection, radioactive waste management, environmental protection, quality assurance, and plant security. There were no significant weaknesses identified.

C. Facility Performance - Farley 1 and 2

Tabulation of ratings for each functional area:

Operations (Units 1 and 2)

1. Plant Operations - Category 1
2. Radiological Controls - Category 1
3. Maintenance - Category 1
4. Surveillance - Category 1

5. Fire Protection - Category 2
6. Emergency Preparedness - Category 1
7. Security and Safeguards - Category 1
8. Refueling - Category 1
9. Licensing Activities - Category 2

D. SALP Board Members

- R. C. Lewis, Director, Division of Project and Resident Programs (DPRP), Region II (RII) (Chairman)
J. A. Olshinski, Director, Division of Engineering and Technical Programs, RII
D. M. Verrelli, Chief, Projects Branch 1, DPRP, RII

E. SALP Board Attendees

- V. L. Brownlee, Chief, Reactor Projects Section 2B, DPRP, RII
F. S. Cantrell, Chief, Reactor Projects Section 1B, DPRP, RII
D. M. Montgomery, Chief, Independent Measurements and Environmental Protection Section, Division of Emergency Preparedness and Operational Support (DEPOS), RII
M. V. Sinkule, Chief, Operational Support Section, DEPOS, RII
W. H. Bradford, Senior Resident Inspector, DPRP, RII
W. H. Ruland, Resident Inspector, DPRP, RII
R. C. Butcher, Project Inspector, Reactor Projects Section 1B, DPRP, RII
E. A. Reeves, Project Manager, Operating Reactors Branch 1, Division of Licensing, Office of Nuclear Reactor Regulation

IV. PERFORMANCE ANALYSIS FOR FARLEY UNITS 1 AND 2

A. Functional Area Evaluations

Licensee Activities

A unit 1 outage was conducted from September 1981, until March 1982. The outage was caused by the necessity of rebuilding the main generator due to an internal electrical fault. During the outage, the licensee elected to perform early refueling of the reactor. Westinghouse technicians performed core baffle plate peening during the refueling outage to alleviate water impingement on the fuel assemblies. Fuel assembly clad leaks currently exist. Coolant activity levels are approaching one-quarter of their allowed limit. Unit 2 was shutdown from February 1982, until March 1982, for reactor coolant pump seal replacement and other maintenance. During this review period, unit 2 achieved a record for the highest operating availability for the first year of operation for units of a comparable type.

Inspection Activities

The routine inspection program was performed during this review period. No team or special inspections were conducted.

1. Plant Operations

a. Analysis

Routine inspection coverage was performed by the resident inspectors throughout the review period. Additionally, two quality assurance program inspections were performed by regional based inspectors. Six violations were identified as follows:

- (1) Severity Level IV violation concerning the changing of reactor operational modes on two occasions without the required equipment being operable as specified by technical specifications.
- (2) Severity Level IV violation concerning an operator error that rendered the diesel generator inoperable because starting air valves had been isolated at the engine.
- (3) Severity Level IV violation concerning the use of inadequate procedures to provide positive control of keys for locked valves.
- (4) Severity Level IV violation for the failure to follow established Quality Assurance (QA) procedures concerning the improper installation of containment spray ring nozzles.

- (5) Severity Level IV violation for the failure to follow established procedures pertaining to the off normal position of engineered safety system valves, which resulted in inoperable containment spray pumps.
- (6) Severity Level V violation for the failure to follow established procedures concerning filling the "1-B" and "1-C" steam generators.

The licensee's supervisory staff is knowledgeable and proficient in day-to-day plant operations. Predicted plant evolutions appear to be well planned with established and realistic priorities. The licensee has been quick to take corrective action where violations have been identified by NRC. The licensee also demonstrates concern for items identified by the internal audit group. Corrective action in this area is generally prompt. The licensee's knowledge of regulations, guides, standards and generic issues is good, and interpretations of these documents and associated issues have been conservative. Licensee technical competence appears to be 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. The licensee is well prepared at meetings with NRC. The licensee's staff is generally able to make immediate commitments or state the utility's position in a given area.

The licensee has a positive nuclear safety attitude and has no significant administrative, management control or material problems. The problems identified by the above violations were non-repetitive in nature and were dealt with in a timely manner. The violations did not demonstrate evidence of a programmatic breakdown.

The qualifications of plant management adequately fulfill NRC requirements. All senior plant managers hold senior reactor operator licenses. The attitude of plant management is slanted towards safety and efficiency. This is exemplified by supervision throughout the plant. The plant appears to be well managed with conscientious and capable personnel.

Regarding the operational quality assurance program, corporate management is involved in site activities and has assured that site personnel are aware of the corporate quality assurance program, how it functions, and their relationship to quality assurance. Audits are generally thorough and audit findings are resolved within a reasonable time. Plant quality assurance staffing appears adequate with qualified personnel filling key staff positions. The Plant Operations Review Committee has been performing its technical

specification function adequately, meeting quorum and qualification requirements, and performing required reviews. Both the design change and maintenance programs are being conducted in an acceptable manner. For both programs, the necessary work reviews were generally thorough and technically sound, procedures and plans were adhered to, conditions requiring corrective action were adequately rectified in a timely and effective fashion, and records were adequately maintained and retrievable. The licensee has an adequate system for tracking and correcting NRC identified items in that a large number of previously identified inspection findings were satisfactorily corrected by the licensee during the assessment period.

The licensee has constructed a new site training center which will house a simulator for training plant licensed operators. The facility will offer classroom instruction in all phases of plant operations, maintenance, radiation control, and general employee training. The training staff appears to be well trained and qualified.

The training and qualification program contributes to an adequate understanding of operations. Yet, of the licensee events reported, about 1 of 3 are attributed to personnel errors. Two separate personnel errors in engineered safeguards system valve positions were reported. Both events involved valves left in the incorrect position. A licensee program to minimize errors in valve lineups was strengthened as a response to these occurrences. These examples as well as the other personnel events indicate a need for the licensee to devote increased attention to this area.

In the operator licensing area, the operator examination failure rates were about 30 percent. This is in the average range when compared to other facilities examined.

An operational event involving inoperability of the containment spray system was discovered subsequent to the end of this review period. The system may have been inoperable during this review period. The event was not considered in this appraisal but will be a part of the next appraisal.

b. Conclusion

Category 1

c. Board Comments

Licensee management attention and involvement are aggressive and oriented toward nuclear safety. No decrease in licensee or NRC attention in this area is recommended.

2. Radiological Controls

a. Analysis

Seven inspections were performed in this area by regional based inspectors. Additionally, routine inspections were performed in this area by the resident inspector. Two violations were identified as follows:

- (1) Severity Level V violation concerning the failure to post Form NRC-3 at the new low level waste facility.
- (2) Severity Level V violation concerning the failure to use charcoal cartridges for sampling radioiodine.

Neither of these violations are considered to be significant programmatic deficiencies. The lack of significant violations is indicative of a good, comprehensive radiation protection program. Inspections have revealed adequate health physics staffing with appropriately qualified licensee and contractor personnel.

A health physics team appraisal conducted during the previous SALP review period identified a number of weaknesses in the licensee's training program. Subsequent inspections during this review period have revealed that the licensee has implemented all of the recommendations of the appraisal resulting in a much improved training program. The training program has been found to be satisfactory and consistent with requirements. Discussions with licensee personnel, observations by inspectors and the absence of violations, indicate that the training program has been effective. Radiological protection procedures were also found to be adequate and consistent with requirements.

Waste handling was satisfactory and a reduction in waste volume has been accomplished. The new low level waste handling facility is an excellent improvement.

Posting, labeling, and other controls being exercised for high radiation areas were observed and found to meet requirements. A review of survey results and independent measurements revealed no violations or deviations. Inspections of liquid and gaseous radioactivity effluent releases and monitor calibrations revealed compliance with applicable regulations, technical specifications and licensee procedural requirements.

A review of records of the transport of radioactive materials revealed no violations with NRC or Department of Transportation regulations.

The corporate management and health physics staffs have been strongly supportive of the site health physics program. This observation is based on licensee actions taken to improve areas identified by the health physics appraisal. The licensee also shows a willingness to promptly correct violations, provide adequately qualified health physics staffing, improve the training program, and improve the waste handling program, as demonstrated by the construction of the new waste handling facility. Examples of licensee efforts to improve the material aspects of the program include installation of a new demineralizer liquid waste processing system augmenting the existing waste solidification system, and replacement of portal monitors with more sensitive "state of the art" units. In the above and other areas, the licensee obtains information from industry and applies the knowledge gained to problem solving at the Farley plant. Also, when industry information is not available for a unique problem, the licensee is willing to provide the resources necessary to pioneer the solution to the problem. The licensee's health physics program has been strengthened by providing specialized supervision responsible for the areas of waste management, effluent controls, and the ALARA program, as evidenced by improvements in each.

The licensee has a written policy for, and commitment to, the ALARA program. A section supervisor has been assigned the responsibility for the ALARA program and he reports directly to the chemistry and health physics supervisor. The program is the sole responsibility of the ALARA supervisor. Written procedures are available to implement the program. ALARA Problem and Evaluation Reports, by which all plant personnel can report an identified problem in the ALARA program, are routinely used. The ALARA supervisor reviews design changes, equipment changes, and the performance of specific work activities to assure that ALARA concepts are considered. This was verified by review of records which revealed input by the ALARA supervisor for the new demineralization system, solidification system, and waste storage facility. The ALARA supervisor closely coordinates his activities with the plant health physics staff. Several items enumerated to the ALARA supervisor by NRC had all been previously recognized and corrective actions were in progress or planned. The ALARA program includes collection of exposure data which is analyzed and plotted on graphs to determine where improvements may be made in the ALARA program. The overall ALARA program has indicated effective improvement in exposure control.

Current plans are for the relocation of the contaminated laundry to a more suitable location in an unused waste drumming facility, modification of the current health physics

control point office, modification of the current health physics counting room, and procurement of a new whole body counter. All of these changes will be significant improvements.

Inspection of the licensee's radiological environmental monitoring program revealed no violations or other areas of concern. The management and implementation of the program were consistent with applicable technical specification and license requirements. Inspections during the SALP period found the environmental monitoring program to be well managed, with adequate controls and resources to achieve a high level of performance in assuring the required radiological environmental protection.

One quality control and confirmatory measurements inspection was performed with the Region II mobile laboratory during the evaluation period. One violation, item (2), above, was identified concerning the use of charcoal cartridges. This inspection also found that overall management of the radiochemistry program was adequate.

b. Conclusion

Category 1

c. Board Comments

Licensee resources are ample and effectively utilized. No change in inspection frequency is warranted.

3. Maintenance

a. Analysis

During the evaluation period, the area of routine facility maintenance was reviewed by the resident inspectors. There were no violations or deviations identified in this area.

The licensee has a positive nuclear safety attitude and has developed a viable preventive and corrective maintenance program. Maintenance activities generally exhibit evidence of adequate preplanning with established priorities. Maintenance procedures and policies appear to be adhered to by the maintenance staff.

The licensee is responsive and conducts investigations to determine, and correct if required, activities related to maintenance which appear to be contrary to the prescribed function of equipment. An example of this is the licensee's action in contacting Westinghouse Corporation when problems

were experienced on reactor coolant pump seals. Another example was the management initiative taken in the contacting of Colt Industries and the formation of a task force to correct operating problems associated with two of the small, opposed piston, emergency diesel generators. Licensee responses to maintenance related and NRC issues are typically viable and acceptable.

The maintenance training and qualification program appears to be a contributing factor in work preparation and adherence to procedures.

b. Conclusion

Category 1

c. Board Comments

A high level of performance with respect to maintenance has been achieved. No change in inspection frequency is warranted.

4. Surveillance

a. Analysis

Operational Surveillance

One inspection was performed by regional based inspectors of the licensee's reactor building tendon surveillance program. Additionally, routine inspections were performed by the resident inspectors of the operational surveillance program. No violations or deviations were identified.

Prior to this evaluation period, the licensee reported problems encountered during previously conducted tendon surveillance inspections, and proposed plans to resolve these problems. During NRC review, it was observed that the licensee's approach to resolve these problems was technically sound and thorough. Management involvement, staffing, and training were adequate for the level of activity involved.

Routine plant surveillance related activities appear to be well defined and indicate evidence of pre-planning and assignment of realistic priorities. The licensee is continuously upgrading the surveillance program.

Reviews of surveillance activities are performed by prescribed reviewers who are qualified to perform these activities. Review of surveillance records reveals that such records are readily available, complete and are adequately

maintained. In-station investigations are routinely performed to address, assess and correct non-reportable surveillance concerns. The licensee also has a strong onsite corporate QA organization involved in the surveillance program.

During the unit 1 refueling outage, the resident inspectors observed various surveillance activities. Within the observed areas, there were no violations identified. These activities were well managed, tracked, and performed.

Inservice Inspection (ISI)

During the evaluation period, three inspections were performed in the area of inservice inspection. One of these inspections included inspection in the area of inservice testing of pumps and valves. One violation was identified as follows:

Severity level V violation concerning the failure to follow ASME Section XI pertaining to nondestructive examination requirements.

This violation is considered minor and not indicative of a programmatic breakdown.

Based on a review of the ISI program, a review of ISI procedures, and an evaluation of ISI activities, licensee management involvement in ISI activities appears to be adequate. Authorities and personnel responsibilities are well defined. The ISI organization appears to be adequately staffed with trained and qualified personnel.

Licensee resolution of ISI related technical issues generally shows a clear and thorough understanding of the issues. Licensee responses to NRC initiatives are normally timely and acceptable. An example of an issue whose timeliness could have been improved concerned the excessive time taken to resolve weld indications in the unit 1 pressurizer shell. The final resolution of this issue remains open pending a reanalysis during the next refueling outage. In some instances, as shown by this example, timeliness of solutions could be improved.

b. Conclusion

Category 1

c. Board Comments

The conduct of surveillance activities was well managed. No decrease in NRC or licensee attention is recommended.

5. Fire Protection

a. Analysis

One inspection was performed in this area by regional based inspectors. Additionally, periodic inspections were performed by the resident inspector. In the areas inspected no violations or deviations were identified.

The licensee has completed practically all of the fire protection modifications required by NRC following the 1975 Browns Ferry fire. However, one deviation and several open items remain outstanding on these modifications. These items include: Substandard fire damper installations; deficient automatic sprinkler system installations; lack of physical examinations required for fire brigade members; substandard welding and cutting fire prevention procedures; and several discrepancies between the "as built" plant fire protection features and those described in the licensee's Fire Protection Reevaluation Manual. At the conclusion of this assessment period the licensee was reviewing these items to determine the action required to resolve these outstanding items.

On occasions during this assessment period, the water level in the fire protection water storage tanks dropped below the minimum level permitted by the technical specifications. These events were promptly reported to NRC by the licensee. A contributor to this problem was the electric fire pump being operated continuously to maintain pressure in the piping system. This situation existed because the system contained a sufficient number of leaks to exceed the capacity of the smaller, pressure maintenance pump. The fire pump operating alarm had been disconnected to prevent its continuous alarm due to the operating fire pump. Disconnecting this alarm also disconnected the low water tank alarms. Therefore, control room annunciation of fire pump, and water tank status, was not provided. Correction of this problem was scheduled to be implemented by late 1982. In the interim, the operating status of the pumps and water level of the tanks was being monitored by periodic visual inspections. However, in the event of a pipe rupture or break, the fire protection water supply could be reduced below that permitted by the technical specifications and could remain in that condition until detected by the visual inspection of water tank level.

Overall, management involvement and control of the fire protection program is adequate with problem areas generally promptly corrected. The licensee is responsive to NRC initiatives and fire protection related violations are

infrequent. Fire protection related events are properly reported. Routine control of the normal daily fire protection program is accomplished by a fire protection coordinator who appears to be provided with a sufficient staff to assure conformance to the licensee's fire protection commitments. NRC inspections have verified that the licensee, in general, complies with these procedures. General housekeeping of the plant is consistently above average.

The training of the plant fire brigade is under the supervision of a professional fire fighter assigned to the plant training department. The training program appears to be very comprehensive in the areas of classroom training, fire drills and practice sessions. A site fire training complex has recently been constructed to provide fire brigade members with realistic fire fighting training.

b. Conclusion

Category 2

c. Board Comments

Fire protection water storage tank low level events have occurred in numerous instances. Although the functional area of fire protection at Farley is evaluated as Category 2, priority attention by management is required to correct this deficiency.

6. Emergency Preparedness

a. Analysis

An emergency preparedness appraisal was conducted in September 1981, consisting of a thorough, indepth review of the licensee's emergency preparedness program. Farley was one of only two operating facilities in Region II where no emergency preparedness deficiencies were identified during the appraisal. This may be attributed to the emphasis placed on emergency preparedness by both corporate and plant management. No violations or deviations were identified in this area during the review period.

The licensee's responsiveness to emergency preparedness issues has been good. The appraisal revealed no significant weaknesses in the areas of emergency preparedness staffing and training.

b. Conclusion

Category 1

c. Board Comments

Licensee management attention, in this area, has been aggressive and oriented toward nuclear safety. No change in inspection frequency is warranted.

7. Security and Safeguards

a. Analysis

Four inspections were performed in this area by regional based inspectors and routine inspections were performed throughout the evaluation period by the resident inspectors. Three violations were identified as follows:

- (1) Severity Level IV violation concerning the failure to provide compensatory measures for a degraded assessment capability.
- (2) Severity Level IV violation concerning the failure to maintain surveillance of escorted personnel.
- (3) Severity Level V violation concerning the failure to comply with requirements for the issuance of security badges.

These violations do not indicate programmatic weaknesses. The low number of violations is indicative of the corporate and site management's support and security awareness. There is an obvious positive concern and emphasis placed on security management. The licensee provides timely and thorough corrective actions on all identified technical issues raised during security inspections. The addition of a security training supervisor has greatly improved the management and operation of the security training program. The staffing of the security guard force is adequate to cover all contingencies indicated in the Farley Security Contingency Plan as well as normal plant operations.

b. Conclusion

Category 1

c. Board Comments

Ample concern for security has been shown by the plant and corporate staffs. No change in inspection frequency is warranted.

8. Refueling

a. Analysis

Refueling activities on unit 1 were observed by the resident inspectors. There were no equipment or material problems and no violations were identified. The staffing, training, performance, and attitude of the licensee and the refueling contractor were comparable to the past refueling.

The licensee followed a management approved refueling procedure, while 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 using various methods, including flow and critical path charts.

Unit 2 was not refueled during the period.

b. Conclusion

Category 1

c. Board Comments

Licensee resources were effectively used such that a high level of performance in this functional area was achieved. No change in inspection frequency is warranted.

9. Licensing Activities

a. Analysis

Licensee management continues to provide detailed involvement and control to assure quality performance in this area. The status of NUREG-0737 was first reported to the staff in December 1981, prior to the staff's generic letters of March and May 1981, requiring such reports. This management initiative is an example of excellent management involvement in the important post-TMI effort.

The licensee appears to have a clear understanding of the technical and legal issues involved with licensing actions. Conservatism is generally exhibited in licensee technical proposals. Yet, the licensee has shown a tendency to use one-time technical specification proposed changes while developing the final technical proposals for issues of a more permanent nature. Five separate, one-time extensions relating to the diesel generators' allowable outage time are an example which lead to optimization in testing schedules

and positive improvements to diesel reliability. However, since the emergency on-site power system has always had a uniqueness and flexibility in design, the licensee's early proposals might have stressed the improved, existing plant safety at the site rather than requesting one-time license changes after diesel generator problems arose.

Few longstanding regulatory issues are attributable to the licensee. The licensee meets deadlines on most submittals. Recommendations are usually technically sound and thorough. As an example, during the reissue of unit 1 technical specifications, numerous outstanding generic as well as plant specific regulatory reviews were resolved. However, in some cases, the licensee repeatedly proposed changes to technical specification issues which the NRC staff closed during the unit 2 licensing reviews. The result was a loss of time of several months in issuance of the new technical specifications needed to assure consistency and uniformity to the extent appropriate between unit 1 and 2 requirements.

Key positions are identified in the licensing area and authorities and responsibilities are defined. A weakness has been noted in the licensee's scheduling of proposed license amendments. Of the twenty license amendments issued during the period, half required less than a month and a half from receipt until issuance. But, five of these required expedited action ranging from one to three days from the receipt of the submittal until the license amendment was issued.

b. Conclusion

Category 2

c. Board Comments

The licensee should direct more corporate management attention to improve headquarters to plant coordination, planning and communication, to reduce the disruptive effect of expedited and unplanned licensing actions.

B. Supporting Data

1. Reports Data

a. Licensee Event Reports (LERs)

Unit 1: 56

Unit 2: 49

An evaluation of unit 1 LERs revealed that they were submitted primarily in the SALP functional areas of plant operations and surveillance. The predominant causes, as would be expected, were mechanical and electrical problems. Within each of these two areas, however, there were no specific identifiable related problems or trends. The subjects of the LERs attributed to mechanical problems ranged from a broken fan belt to a damaged motor rotor. The electrical problems ranged from a blown fuse to a transformer failure. The most recurrent of the electrical problems included seven instances of circuit failure or amplifier drift. There were no major operational problems associated with these LERs.

An evaluation of unit 2 LERs revealed that the SALP functional areas of plant operations and surveillance contributed the major portion of LERs. The major causes were mechanical or electrical malfunctions. The mechanical problems ranged from a leak in a water level indicator to a faulty snubber. Amplifier drift appeared to be the most predominant electrical problem with five occurrences. Other causes of electrical LERs ranged from blown fuses to battery failure and power loss. The only major operational problem was associated with rotor damage to diesel generator "1-2A" which resulted in extensive diesel out of service time.

In general, reportable events are reported in a timely manner. Corrective action is usually taken, but may not be effective as indicated by some instances of repetition.

Reports relating to equipment failures dominated the reportable events as discussed above. However, of more significance are the events due to personnel error which approximated 35 percent of all events. Several reports concerned repeated events relating to low water level in the fire system tanks.

b. Part 21 Reports

Unit 1: 1
Unit 2: 0

2. Investigation and Allegation Review

No major investigation or allegation activities occurred during the review period.

3. Enforcement Actions

a. Violations

12

b. Civil Penalties

No civil penalties were issued during this review period.

c. Orders

No orders relating to enforcement matters were issued.

4. Administrative Actions

a. Confirmation of Action Letters

No Confirmation of Action letters were issued during this review period.

b. Management Conferences

A conference was held on January 26, 1982 to discuss unit 1 containment spray ring nozzle misorientation and unit 2 chemical spray additive tank valve mispositioning.

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February 2, 1983

Docket Nos. 50-348
50-364

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1982 Systematic Assessment of Licensee Performance (SALP)
for Farley Nuclear Plant
NRC Report Nos. 50-348/82-28 and 50-364/82-28

Dear Mr. O'Reilly:

The subject SALP Assessment, paragraph 5a, identified the "lack of physical examinations required for fire brigade members" and "substandard welding and cutting fire prevention procedures" as open items of the Farley Nuclear Plant Fire Protection Program. Alabama Power Company responded to this assessment by letter of December 21, 1982. On January 4, 1983, representatives of the NRC Regional Staff, including Messrs. Conlin and Miller, and Alabama Power Company staff members, Messrs. O. D. Kingsley, Jr. and R. L. George, discussed the applicability of the Farley Nuclear Plant Fire Protection Program and its compliance with Appendix R. As discussed, the position of Alabama Power Company is that the present use of flame permits to control welding and cutting and the now current use of annual physical qualifications for fire brigade members at Farley Nuclear Plant are adequate and satisfy the provisions of Appendix A to Branch Technical Position BTP APCS 9.5-1. In addition, it was noted that 10CFR50.48 provides that Branch Technical Position BTP APCS 9.5-1 and Sections III.G, III.J and III.O of Appendix R be applied to operating plants with NRC Staff accepted safety evaluation reports. The Farley Nuclear Power Plant received such a safety evaluation report by the issuance of the Joseph M. Farley Safety Evaluation Report, Fire Protection Review, Units 1 and 2, dated February 12, 1979, as Amendment 11 to Farley Unit 1 Operating License No. NPF-2. As requested in Alabama Power Company letter dated December 21, 1982, and reiterated in the January 4, 1983 discussion, these two open items should be closed and removed from

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from the subject SALP Assessment since the now current Alabama Power Company program complies with all applicable licensing provisions.

The discussion on January 4, 1983 of the Alabama Power Company position is herein summarized as clarification to the December 21, 1982 letter.

Applicability of Appendix R to Farley Nuclear Plant

The applicability of Appendix R was addressed in Alabama Power Company letter dated March 19, 1981 which provided the NRC a plan and schedule to comply with the provisions of Appendix R. Regarding both Units 1 and 2, this letter stated, "Alabama Power Company has recently completed extensive modifications and upgrades to its fire protection program as a result of the Fire Protection Program Reevaluation; therefore, only Sections III.G, III.J, and III.O of Appendix R apply to the Farley Nuclear Plant."

The basis for the statement of the March 19, 1981 letter is 10CFR50.48(b) which states as follows:

"Except for the requirements of Sections III.G, III.J and III.O, the provisions of Appendix R to this part [10CFR50] shall not be applicable to nuclear power plants licensed to operate prior to January 1, 1979, to the extent that fire protection features proposed or implemented by the licensee have been accepted by the NRC staff as satisfying the provisions of Appendix A to Branch Technical Position BTP APCS 9.5-1 reflected in staff fire protection safety evaluation reports issued prior to the effective date of this rule [February 17, 1981]. . ."

The NRC's Joseph M. Farley Safety Evaluation Report, Fire Protection Review, Units 1 and 2, dated February 12, 1979 states,

"Since Unit Nos. 1 and 2 are of the same design, except where noted, all comments made in this report apply to both units."; additionally, "In summary, the Fire Protection Program for the Farley Nuclear Plant with the improvements already made, is adequate for the present time and, with the scheduled modifications, will meet the guidelines contained in Appendix A to BTP ASB 9.5-1."

The Fire Protection Program for Farley Nuclear Plant Units 1 and 2 satisfies the provisions of Appendix A to Branch Technical Position BTP APCS 9.5-1 and was accepted by the NRC staff in a safety evaluation report issued prior to the effective date of 10CFR50.48 and Appendix R; therefore, the exclusion for implementing certain provisions of Appendix R as specified by 10CFR50.48(b) is extended to Farley Nuclear Plant Units 1 and 2.

Farley Nuclear Plant Units 1 and 2 received operating licenses on June 25, 1977 and March 31, 1981, respectively. Although Unit 2 was licensed after January 1, 1979, the exclusion for implementing certain provisions of Appendix R as specified in 10CFR50.48(b) is applicable to Unit 2 as stated in the aforementioned March 19, 1981 letter. This is supported by the NRC's Safety Evaluation Report for Farley Nuclear Plant Unit 2, Supplement 5, dated March 1981, which states:

"On October 27, 1980, the Commission approved for publication in the Federal Register a new §50.48 and Appendix R to 10 CFR Part 50 delineating certain fire protection provisions for nuclear power plants licensed to operate prior to January 1, 1979. By letter dated December 8, 1980, the licensee committed to implement in Unit 2 any modifications required for Farley Unit 1 for the following three issues identified in Appendix R as items to be backfitted.

1. Section III.G, Fire Protection of Safe Shutdown Capability
2. Section III.J, Emergency Lighting
3. Section III.O, Oil Collection System for Reactor Coolant Pumps

"The implemented schedule will be in accordance with the requirements of the rule.

"Based on these commitments and our [NRC staff] evaluation, we conclude that Farley Unit 2 fire protection program will meet all the requirements of Appendix R to 10 CFR Part 50 when the committed modifications have been completed, meets the requirements of General Design Criterion 3, and therefore is acceptable."

Therefore, the position of Alabama Power Company is that only Sections III.G, III.J and III.O of Appendix R apply to Farley Nuclear Plant Units 1 and 2. The obligatory compliance by Farley Nuclear Plant Units 1 and 2 of any Appendix R provisions, other than Sections III.G, III.J and III.O, is outside the scope of the present Farley Nuclear Plant fire protection program and the Branch Technical Position BTP APCS 9.5-1 and is therefore not justified.

Annual Physical Qualification

As discussed, the present Farley Nuclear Plant Fire Protection Program satisfies the provisions of Appendix A to Branch Technical Position BTP APCS 9.5-1 and associated supplemental guidance and provides adequate guidance to ensure that fire brigade members are physically qualified to fulfill their responsibilities. As

supplemental guidance to Branch Technical Position BTP APCS 9.5-1, the NRC issued "Nuclear Plant Fire Protection Functional Responsibilities, Administrative Control and Quality Assurance", dated August 29, 1977, which provides that fire brigade members participate in annual practice sessions under strenuous conditions and their qualifications "should include satisfactory completion of a physical examination for performing strenuous activity".

All Farley Nuclear Plant fire brigade members participate in annual practice sessions using fire fighting equipment and emergency breathing apparatus. These practice sessions are conducted under the strenuous conditions involving an actual fire that could occur at a nuclear power plant and include fire fighting in enclosed spaces, agility in protective clothing, manipulating fire fighting equipment, wearing emergency breathing apparatus, and demonstration of the physical capacity and stamina to perform fire fighting activities. Fire brigade members are drilled and evaluated individually and as a team. Members have been removed from the fire brigade when satisfactory completion of the practice session was not demonstrated due to lack of physical capability.

Alabama Power Company has demonstrated compliance with the supplemental guidance dated August 29, 1977, and thereby Branch Technical Position BTP APCS 9.5-1, by the Farley Nuclear Plant Fire Protection Program Reevaluation (FPPR), dated September 1977. FPPR Amendment 3, Question 53, dated October 1978, identifies pertinent Farley Nuclear Plant procedures and provides a point-by-point response to the provisions of the supplemental guidance. It is the opinion of Alabama Power Company that these annual practice sessions at Farley Nuclear Plant sufficiently examine and demonstrate the physical capabilities of fire brigade members to perform strenuous fire fighting activities and therefore satisfies the supplemental guidance and Branch Technical Position BTP APCS 9.5-1.

As a supplement to the information previously provided in letter of December 21, 1982, Alabama Power Company provides a medical screening of fire brigade members in addition to physical examination provided by practice sessions. All fire brigade members must satisfactorily complete a pulmonary examination in order to qualify for the use of emergency breathing apparatus and fire brigade membership. Moreover, the medical fitness of fire brigade members, and all other employees, is addressed by an Alabama Power Company management procedure. Alabama Power Company provides all employees, including fire brigade members, a cost-free medical examination by a qualified physician. This medical examination is optional to all employees, except security members who must satisfactorily complete an annual medical examination. Employees over the age of thirty-five are formally notified during

the month of their birth of the Alabama Power Company policy regarding medical fitness and requested to complete a cost-free medical examination. Furthermore, all security members, including those of the fire brigade, successfully complete an annual physical fitness test which demonstrates the most physically demanding day-to-day and contingency situations that may be encountered during job performance in accordance with 10CFR50.73, Appendix B. It is the position of Alabama Power Company that the current use of this medical screening provides a supplement to the practice sessions such that the Farley Nuclear Plant fire brigade members are physically qualified to perform strenuous fire fighting activities.

Use of Open Flame Permits

Farley Nuclear Plant Fire Protection Program Reevaluation, Amendment 3, Question 53, Attachment 4, provides a point-by-point response to the provisions of supplemental guidance dated August 29, 1977. The response to the provisions for a work permit to control ignition sources is outlined in Alabama Power Company administrative procedure FNP-O-AP-38, Use of Open Flame, which provides for supervisory approval of an open flame permit.

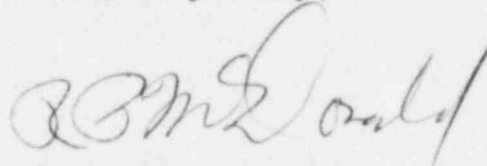
At Farley Nuclear Plant, the Group Foreman who assumes responsibility for the work requiring a flame permit and the Shift Foreman are responsible to authorize the use of open flame permits. Shift Foremen are trained in fire protection measures in accordance with the Farley Nuclear Plant Fire Protection Program. When the reactor is critical, the use of an open flame permit will not be approved in the Auxiliary Building Battery Rooms, Auxiliary Building Battery Switchgear Rooms, Main Control Room or the Cable Spreading Room unless absolutely essential. An open flame permit is approved for the expected duration of the work. The Group Foreman is responsible for the daily supervision and periodic checks of work activity, compliance with open flame permit provisions and the handling and operation of cutting and welding equipment. The Group Foreman will ensure that proper fire fighting equipment is available, combustibles are removed or shielded from ignition sources, and fire watches are posted in safety related areas or areas containing combustibles. Fire watches have no other duty. A final inspection of the area is made within approximately one-half an hour after the use of an open flame permit has terminated.

As previously discussed, the NRC Staff Safety Evaluation Report, dated February 12, 1979, has determined that the present Farley Nuclear Plant Fire Protection Program satisfies the provisions of Appendix A to Branch Technical Position BTP APCSB 9.5-1. It is the opinion of Alabama Power Company that the present open flame permit system is adequate to minimize the potential of a fire from the use of ignition sources and that the imposition of the provisions of Appendix R, Section III.K at Farley Nuclear Plant is not justified.

Conclusion

The Fire Protection Program for Farley Nuclear Plant Units 1 and 2 satisfies the provisions of Appendix A to Branch Technical Position BTP APCS 9.5-1 and was so accepted by the NRC Staff in a safety evaluation report issued prior to the effective date of 10CFR50.48 and Appendix R. In accordance with 10CFR50.48(b), only Sections III.G, III.J and III.O of Appendix R apply to Farley Nuclear Plant. It is the position of Alabama Power Company that the imposition of fire protection requirements other than that of BTP APCS 9.5-1, associated supplemental guidance and any Appendix R sections other than Sections III.G, III.J and III.O is not justified and would not significantly contribute to improved fire protective safety at Farley Nuclear Plant. Therefore, Alabama Power Company requests that the two open items regarding physical examinations and fire prevention procedures be closed and removed from the subject SALP Assessment.

Yours very truly,



F. L. Clayton, Jr.

FLCJr/MAL:mjh-D37

cc: Mr. R. A. Thomas
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