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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

(Joseph M. Farley Nuclear  
Plant, Units 1 and 2)

Docket Nos. 50-348-CivP  
50-364-CivP

ASLBP No. 91-626-02-CivP

## PRE-HEARING BRIEF OF ALABAMA POWER COMPANY

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	Docket Nos. 50-348-CivP
ALABAMA POWER COMPANY	)	50-364-CivP
	)	
(Joseph M. Farley Nuclear	)	
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PRE-HEARING BRIEF OF ALABAMA POWER COMPANY

In this enforcement hearing, Alabama Power Company is contesting the imposition by the NRC Staff of a \$450,000 civil monetary penalty for an alleged failure to comply with the requirements of 10 CFR 50.49. This regulation, promulgated on January 21, 1983, established a November 30, 1985 deadline for licensees to identify, qualify, and document such qualification for all safety-related electrical equipment required to function in a design basis accident environment. The Staff, in imposing the civil penalty, has alleged that Alabama Power Company did not comply with 10 CFR 50.49 by this deadline.

In response to this allegation, Alabama Power Company contends that: (1) from a technical standpoint, Alabama Power Company had sufficient documentation to establish that its electrical equipment, requiring qualification, would perform its intended function in a design basis accident environment; (2) because the Staff relied on information that evolved after the deadline, it cannot meet the "clearly knew or should have known" standard required by its own Modified Enforcement Policy for implementing civil penalties for EQ violations; and (3) any alleged deficiency in documentation did not pose a significant safety hazard that would warrant civil enforcement under the Modified Enforcement Policy or, more broadly, under Section 234 of the Atomic Energy Act. In the case of each alleged violation,

the burden is on the Staff to prove the antithesis of each of these three points. As the evidence in this case will show, the Staff has failed to carry that burden and, as a result, the civil penalty assessed Alabama Power Company is due to be withdrawn, or drastically reduced.

In addition, to the extent the Board disagrees with any of the above positions and concludes that the Staff has met its burden of proof regarding all prerequisites to escalated enforcement (on some or all of the specific alleged violations), Alabama Power Company requests that this Board reconsider both the Severity Category assigned by the Staff as well as the Staff's escalation/mitigation analysis. Alabama Power Company does not believe that the Severity Category assigned by the Staff appropriately reflects the lack of safety significance of the alleged violations still at issue. With respect to the escalation/mitigation analysis, Alabama Power Company disputes the 50% escalation of the base civil penalty applied for an alleged lack of best efforts and disputes the 25% escalation applied for allegedly insufficient corrective actions. In fact, when viewed in appropriate perspective, Alabama Power Company believes that its corrective actions and its substantial efforts to comply with EQ requirements entitled it to a substantial mitigation of any base civil penalty.

At the core of many of the Staff's allegations is one recurring issue: Alabama Power Company believes that it has been subjected to an evolving level of Staff expectations for EQ compliance. As Alabama Power Company will establish in its Direct Written Testimony, the Staff applied two years worth of post-deadline EQ experience and knowledge to Alabama Power Company's pre-deadline state of mind to determine whether it complied with the EQ rule. Using 1987 expectations, the Staff inspected Farley Nuclear Plant and determined that Alabama Power Company no longer was in compliance with 10 CFR 50.49

as it had declared on December 13, 1984, when the Staff issued to Alabama Power Company a Safety Evaluation Report evaluating the Farley EQ program. Alabama Power Company believes that for regulatory purposes, the Staff has a right and obligation to review a licensee's compliance with its regulations. However, for enforcement purposes, particularly under the Staff's own Modified Enforcement Policy, the Staff should not be allowed to revisit a pre-deadline determination of compliance and, using post-deadline knowledge, impose a civil penalty claiming that Alabama Power Company no longer met the deadline.

The balance of this brief will provide the Board with a succinct overview of the principal components of Alabama Power Company's position. First, it will present generally the undisputed factual history of Alabama Power Company's responsiveness to and compliance with Staff EQ requirements. This history will establish not only that Alabama Power Company exercised best efforts to meet the EQ deadline, but also that the Staff, prior to the deadline, acknowledged Farley Nuclear Plant's compliance with 10 CFR 50.49. Second, this brief will outline Alabama Power Company's argument that each item of electrical equipment at issue in this enforcement action was qualified to the requirements of 10 CFR 50.49 -- at least as those requirements were understood by Alabama Power Company and the Staff prior to the EQ deadline. Third, to the extent qualification remains in dispute, this brief will highlight the argument, which will be further developed in the Direct Written Testimony, that the Staff has failed to establish that on November 30, 1985, Alabama Power Company "clearly knew or should have known" of those alleged violations. Finally, Alabama Power Company will present its argument that the alleged violations were strictly documentation-related and not safety significant. Under the Modified Enforcement

Policy as well as broader principles of law and policy, these "deficiencies" do not justify the imposition of a civil penalty.

#### FACTUAL OVERVIEW

In its Direct Written Testimony, Alabama Power Company witnesses will present to the Board a detailed review of the development of the EQ rule and of Alabama Power Company's responsiveness to each Staff requirement, inquiry and request. As a result, this brief will only mention the more significant milestones in Alabama Power Company's compliance efforts from 1978 until November 30, 1985. It is important to underscore that, for enforcement purposes under the Modified Enforcement Policy, November 30, 1985 is the cut-off date for determining compliance with 10 CFR 50.49 and what Alabama Power Company "clearly knew or should have known."

In January, 1980, the Staff issued Bulletin 79-01B, which, in part, required licensees to compile a Master List of all safety-related electrical equipment required to function in a design basis accident, and to ensure that the licensee had documentation sufficient to establish that each item of equipment on this Master List was qualified to perform its intended function in a post-accident environment. In response to Bulletin 79-01B, Alabama Power Company submitted to the Staff a separate Master List for Farley Nuclear Plant Units 1 and 2. After reviewing these submittals, the Staff issued Safety Evaluation Reports in 1981 concluding that Alabama Power Company's Master Lists were "complete and acceptable."

In 1980, the Staff conducted an evaluation of the Farley Nuclear Plant EQ documentation files. This evaluation resulted in a Technical Evaluation Report, signed by Mr. Norman Merriweather on December 10, 1980, which concluded that several of the items

at issue in this enforcement action were "qualified." Farley Nuclear Plant was also the subject of two on-site inspections in 1980. A primary purpose of the first inspection was to look at system interfaces, which by definition included a review of the V-type taped cable terminations and the 5-to-1 pigtail terminations for the Hydrogen Recombiners at issue in this enforcement action. The second inspection was conducted under the direction of Mr. Phil DiBenedetto for the purpose of determining whether Unit 2 should receive its full power license. That audit found only insignificant deficiencies in Alabama Power Company's EQ program and, as a result, the Commission issued Unit 2 its license in March, 1981.

As part of the Staff's review of Alabama Power Company's compliance with Bulletin 79-01B, the Staff retained Franklin Research Center to review the qualification documentation for each item of electrical equipment on the Master Lists. In response to a Staff request, Alabama Power Company submitted to Franklin Research Center certain test reports that it was using to establish qualification. At the conclusion of Franklin's review of the documentation, Franklin submitted to the Staff a Technical Evaluation Report, which identified each item of electrical equipment on Alabama Power Company's Master List as being either qualified, unqualified, or as having deficient qualification documentation. Subsequently, the Staff submitted to Alabama Power Company an SER for each unit transmitting the Franklin Technical Evaluation Reports, and adopting the "bases and findings" of the Franklin TERs. Upon receipt of the SERs in the spring of 1983, Alabama Power Company began to resolve each deficiency identified by Franklin, and on January 11, 1984, met with the Staff in Washington, D.C. to discuss its proposed resolutions to these deficiencies. At this meeting, the Staff agreed that Alabama Power Company had either resolved each of the Franklin-identified deficiencies or that the plan presented for resolving



such deficiencies was acceptable. The minutes of this meeting are documented in a letter from Alabama Power Company to the Staff dated February 29, 1984.

As a result of the Staff's concurrence in Alabama Power Company's resolution to the Franklin deficiencies, Alabama Power Company believed that it was in compliance with 10 CFR 50.49 and had achieved this compliance by the November 30, 1985 deadline. Then, on December 13, 1984, the Staff issued a Safety Evaluation Report for Unit 1 and Unit 2, which clearly stated that the Staff agreed with Alabama Power Company that it had met the requirements of 10 CFR 50.49. In those Safety Evaluation Reports, the Staff reached three conclusions:

- (1) Alabama Power Company's electrical equipment environmental qualification program complies with the requirements of 10 CFR 50.49;
- (2) The proposed resolutions from each of the environmental qualification deficiencies identified in the January 31, 1983 SER and FRC TER are acceptable; and,
- (3) Continued operation will not present undue risk to the public health and safety.

Despite this pre-deadline proclamation by the Staff that Alabama Power Company was in compliance with 10 CFR 50.49, the Staff, after a 1987 inspection of Farley Nuclear Plant, determined that Alabama Power Company was not in compliance with 10 CFR 50.49 before the deadline and assessed a civil penalty for this "programmatic breakdown."

## II. TECHNICAL ARGUMENTS

Alabama Power Company believes that for each item of electrical equipment alleged by the Staff to be in violation of 10 CFR 50.49, it had in its qualification files documentation sufficient to establish that the respective item would perform its intended function in a design basis accident environment. Several expert witnesses for Alabama Power Company



will proffer Direct Written Testimony supporting the Company's position that the documentation in its qualification files, along with reasonable engineering judgment, was sufficient to allow an engineer, knowledgeable in EQ, to conclude that the item would perform its required function. A summary of Alabama Power Company's technical position for each item of equipment at issue is attached as Attachment 1. As this Attachment illustrates, many of the technical disputes are simply disagreements between Staff inspectors and Alabama Power Company engineers over documentation of technical conclusions and engineering judgments.

Alabama Power Company also contends that many of the Staff's positions taken in this enforcement action regarding what needed to be addressed in EQ documentation were based on knowledge obtained after the EQ deadline, and, therefore, cannot be used against a licensee for enforcement purposes under the Modified Enforcement Policy. To support this contention, Alabama Power Company references the training seminar conducted at the Sandia National Laboratories several weeks before the Farley Nuclear Plant inspection. At this seminar, Staff inspectors were educated on the most up-to-date knowledge regarding EQ compliance. Then, armed with the Sandia list of likely violations, the inspectors audited Farley Nuclear Plant to see if Alabama Power Company had met this "moving target" of Staff expectations. Though the Staff concluded that its 1987 expectations had not been met, Alabama Power Company, nevertheless, contends that its engineering judgment and supporting documentation established compliance with 10 CFR 50.49. Additional documentation provided in 1987 was necessary only to confirm this compliance, to address new, post-deadline issues, or to meet higher standards for the level of detail required for EQ documentation.

### III. THE "CLEARLY KNEW OR SHOULD HAVE KNOWN" STANDARD

To impose a civil penalty under the Modified Enforcement Policy, the Staff must prove that prior to the November 30, 1985 deadline, Alabama Power Company "clearly knew or should have known" of the lack of proper environmental qualification for the electrical equipment at issue in this enforcement action. As Alabama Power Company will establish in its Direct Written Testimony, the Staff has failed to meet this burden. For each individual item of electrical equipment, Alabama Power Company witnesses will discuss in detail why Alabama Power Company believed such item was qualified to 10 CFR 50.49 by the deadline or why such item did not require qualification.

Alabama Power Company will present a distinguished panel of witnesses to explain its case on each of the alleged violations still at issue. These witnesses include experts from Bechtel and Alabama Power Company who have had longstanding involvement in the evolution of EQ issues. The Company's witnesses also will include two consultants in private employment who were involved in the EQ program at the NRC prior to the November 30, 1985 deadline. Taken together, these well-qualified witnesses present a strikingly clear picture of what Alabama Power Company "knew or should have known" prior to the deadline. Their perspective stands in stark contrast to the overly simplistic, after-the-fact view adopted by the Staff in the Notice of Violation, Order, and in their direct testimony.

For their part, the Staff presents no witness with the detailed, pre-deadline EQ qualifications of the Alabama Power Company witnesses. Instead, the Staff relies on cursory statements and the specious logic that because violations were found in 1987, then certainly Alabama Power Company should have known of these violations prior to the deadline. The Staff witnesses point broadly in some cases to generic communications as a basis for its

"clearly should have known" findings. However, in these cases, the Company's witnesses will put those communications in proper perspective indicating that the Staff has taken liberties with the generic correspondence by reading entirely too much into those communications in order to support a "clearly should have known" finding.

Alabama Power Company's "clearly knew or should have known" argument also focuses on the Staff's December 13, 1984 Safety Evaluation Report, which concluded that Farley Nuclear Plant was in compliance with 10 CFR 50.49. This document is a clear and tangible indication of Alabama Power Company's pre-deadline understanding of its compliance with the EQ rule. It also clearly establishes what the Staff thought of Alabama Power Company's EQ program after auditing all of Alabama Power Company's qualification files and conducting two on-site inspections. Incredibly, the Staff failed to mention this SER in its direct written testimony. Instead, the Staff considered only the alleged lack of documentation at Farley Nuclear Plant in 1987 to determine what Alabama Power Company must have known prior to the deadline.

In sum, because the Staff has failed to identify persuasively why Alabama Power Company should have known of these alleged violations, no civil penalty should issue under the Modified Enforcement Policy.

#### IV. THE ALLEGED VIOLATIONS' LACK SAFETY SIGNIFICANCE

Alabama Power Company's witnesses also will show that none of the alleged violations posed any significant threat to the public health and safety, and, therefore, under Section 234 of the Atomic Energy Act, cannot result in a civil penalty. (See Atlantic Research Corporation, CLI-80-7, 11 NRC 413 (1980).) The evidence in this case will show that each item of equipment was at all times completely operational and capable of


performing its intended function in a post-accident environment. To Alabama Power Company, this enforcement action can be reduced to a disagreement over engineering judgment between Alabama Power Company engineers and Staff investigators regarding the adequacy of the qualification documentation files. Once the Staff determined the files to be inadequate, they equated lack of paper with actual safety significance and imposed a civil penalty. Alabama Power Company believes that this practice is inconsistent with sound regulatory policy, does not advance any public interest and is violative of Section 234 of the Atomic Energy Act.

In addition, for certain of the alleged violations still in issue, the Staff has inappropriately ignored Section III of its own Modified Enforcement Policy. To the extent documentation deficiencies existed during the inspection, and where those "deficiencies" involved little safety significance, Section III of the Modified Enforcement Policy specifically calls for the "violation" to be treated outside the context of civil penalties if the licensee produced sufficient documentation during the inspection. As Alabama Power Company's witnesses will show, for certain items of equipment at issue, Alabama Power Company had sufficient documentation to establish operability and/or qualification by the conclusion of the EQ inspection at Farley Nuclear Plant. Not only did this documentation prove the "deficiency" was insignificant, it also proved that the standards for EQ documentation had been met. As a result, under Section III of the Modified Enforcement Policy, these "violations" should not have been treated as a basis for a civil penalty.

#### V. CONCLUSION

Due to the Staff's failure to present persuasive testimony on any of the issues discussed above, the Staff has failed to meet its burden of proving that the \$450,000 civil

penalty is justified. Alabama Power Company therefore requests that this Board withdraw the civil penalty at the conclusion of the enforcement hearing.

  
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## EQ NOV MATRIX

ISSUE	NRC POSITION	APCO POSITION ON QUALIFICATION	SAFETY SIGNIFICANT	EVOLVING ISSUE
1. V-Splices	Not on Master List, not qualified.	Such splices are not required to be on the Master List. NRC SER in 1981 approved the Master List without splices being listed. NRC inspected interface integrity in 1980 without identifying violations or deviations. Okonite testing proved splice materials qualified. "V" configured splices qualifiable based on engineering judgment. This engineering judgment was confirmed by test of such splices by Wyle test.	No.  Since qualification provided by Wyle testing.	Yes.  No basis to question terminations in 1985.
2. 5-to-1 Tape Splices	Not on Master List, not qualified.	Such splices are not required to be on the Master List. NRC SERs in 1981 approved the Master List without splices being listed. NRC inspected interface integrity in 1980 without identifying violations or deviations. NRC SERs in 1983 stated Hydrogen Recombiners were qualified. Westinghouse testing which proved Hydrogen Recombiners were qualified was conducted using identically configured splices. Okonite testing proved splice materials used at FNP were qualified. Therefore splices used at FNP were qualified by similarity.	No.  Since qualified by similarity to tested splice.	Yes.  Previously approved; not an issue in 1985.
3. Terminal Blocks in Instrumentation Circuit	Documentation does not demonstrate terminal blocks would maintain acceptable instrument accuracy.	NRC knew as early as 1978 that FNP used terminal blocks in instrumentation circuits. Franklin and NRC was again informed of this use in 1983 and found terminal blocks in instrument circuits to be qualified. The concerns documented in IN 84-47 were addressed during the 1/11/84 meeting with the NRC Staff and documented in the 2/29/84 letter from APCo to NRC. The NRC 12/13/84 SER provided assurance that the resolution to this issue was acceptable to NRC.  Terminal blocks used in instrumentation circuits are qualified at FNP since the terminal blocks would maintain acceptable instrument accuracy during the portions of the design basis events where operator actions were necessary. Said another way, the instruments associated with the terminal blocks in question are not required during the portion of the design basis events when unacceptable instrument accuracy could be expected. Operator actions, based on these instruments, are not required during peak adverse containment conditions.	No.  Analysis has shown that terminal blocks would not degrade to the point where plant operators would be misled.	Yes.  Instrument accuracy issues evolved considerably post-deadline.



ISSUE	NRC POSITION	APCO POSITION ON QUALIFICATION	SAFETY SIGNIFICANT	EVOLVING ISSUE
4. Raychem/Chico Seals	File did not demonstrate qualification. File did consider possible chemical interaction.	The file adequately documented the qualification of the Raychem/Chico seals used in Namco limit switches. 10 CFR 50.49, DOR Guidelines, and NUREG-0588 allows qualification using partial testing and analysis. As such, APCo had Raychem testing which qualified the heat shrink breakout boot to FNP parameters (radiation, temperature, humidity, chemical spray); testing of Chico A cement, which qualified this material to FNP parameters (radiation only, since protected by Raychem boot and pipe nipple); and APCo/Bechtel testing of Raychem boot and Chico A cement when used in combination which proved that the combination would not fail when subjected to pressure (a problem identified by Raychem and duplicated at FNP without the Chico backing).	No.  Raychem/Chico seals are qualified.	Yes.  Seals were qualified. Documentation sufficient under 1985 or 1987 standards.
5. Limitorque T-Drains	Limitorque MOVs are not qualified without T-drains.	Limitorque tested MOVs both with and without motor T-drains. These tests, taken together as allowed by 10 CFR 50.49, envelope FNP post-accident conditions and adequately demonstrate that T-drains are not required to ensure that Limitorque MOVs will perform their intended safety-related functions.	No.  MOVs are qualified without such drains at Farley Nuclear Plant.	Yes.  Issue evolved after deadline.
6. Limitorque Terminal Blocks	Installed components not identical to that tested. IN 83-72 should have prompted walkdown.	APCo had reasonable assurance that the MOVs in question were qualified. NRC indicated that IN 83-72 applied to MOVs modified by third-party vendors. APCo had certificates of conformance to appropriate test reports from Limitorque, appropriate receipt inspection, as well as NRC-accepted QC and QA programs. APCo therefore had every reason to believe that: (1) Limitorque MOVs supplied to FNP were the MOVs that were specified; (2) the MOVs specified, received, and installed were the same as the MOVs tested; and (3) the MOVs were appropriately installed. Based on this alone, at the time that IN 83-72 was issued, APCo had sufficient assurance that IN 83-72 did not apply to FNP. Moreover, it must be noted that in 1986 (after the deadline), NRC issued IN 86-03 concerning unqualified Limitorque internal wiring. This did prompt disassembly type walkdowns at FNP. Additionally, since the NRC Staff refrained from escalated enforcement on the subject because it was not clear that licensees should have known of the concern and since the internal wiring of concern to IN 86-03 terminates on the blocks of concern here, we believe this to be	No.  There is reasonable assurance that MOVs would have performed intended function.	Yes.  No basis to identify/address MOV internals prior to deadline.



ISSUE	NRC POSITION	APCO POSITION ON QUALIFICATION	SAFETY SIGNIFICANT	EVOLVING ISSUE
6. (Continued)		clear evidence that licensees (including APCo) cannot meet the "clearly should have known" standard established by the NRC in the Modified Policy which must be satisfied before a civil penalty can be imposed.		
7. Gens Level Transmitter	Not qualified without silicone oil or with V-splice.	See No. 1 for V-splice discussions. Low or missing silicone oil is not an EQ program deficiency. The EQ program established that the maintenance program would address EQ matters (e.g., periodic replacement, necessary gasket replacements, installation, in accordance with vendor instruction manuals, etc.). Furthermore, maintenance related to EQ components assumes that non-EQ maintenance activities (e.g., calibrations) are performed. As such, if maintenance activities are not performed, it in no way implicates the EQ program. Moreover, these transmitters are qualified to perform their safety-related function without silicon oil. This is based on the absence of safety-related function of these transmitters.	No.  Not primary means of switching from RWST to containment sump.	Yes.  Maintenance was not an EQ issue prior to EQ deadline.
8. Premium RB Grease	Unqualified or mixed grease (not identical to tested).	Grease serves only a mechanical component lubrication function. As such, it cannot perform any electrical function. Since 10 CFR 50.49 clearly only requires qualification of electrical components by test or similarity, the use of a different grease from that tested cannot be the subject of a fine under a policy applicable to this rule. The vendor specifically states that an equivalent grease is acceptable. Texaco Premium RB grease is equivalent to the vendor-recommended grease. Moreover, Premium RB grease was later shown to be fully qualified (even though such qualification is not required). Moreover, the mixing of grease, even though not an ideal practice, does not prevent the grease from performing its intended lubrication function.	No.  Grease used was equivalent to that tested and later shown to be fully qualified.	No.  Issue evolved after deadline.

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