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 Plant, Units 1 and 2)	)	
	)	(ASLBP NO. 91-626-02-CivP)

REBUTTAL TESTIMONY OF JAMES G. LUEHMAN AND PAUL C. SHEMANSKI ON BEHALF OF THE NRC STAFF CONCERNING ENFORCEMENT

Q1. State your full name and current position with the NRC.

A. James G. Luehman, Senior Enforcement Specialist, Office of Enforcement.

Paul C. Shemanski, Senior Electrical Engineer, License Renewal Project Directorate, Office of Nuclear Reactor Regulation.

Q2. Have you prepared a copy of your Professional Qualifications?

A. (All) A copy of each of our Professional Qualifications has been admitted previously into evidence as Staff Exh. 1.

Q3. What is the purpose of your testimony?

A. (All) The purpose of our testimony is to rebut portions of the Alabama Power Company (APCo) testimony regarding the violations of the NRC requirements for environmental qualification of electrical equipment important to safety for nuclear

power plants which led to the civil penalty that is the subject of this hearing. The APCo testimony which is the subject of this rebuttal testimony is contained in Direct Testimony of David Huber Jones and Bernard Douglas McKinney, Jr. on Behalf of Alabama Power Company (ff. Tr. 897) (hereafter J/McK), Direct Testimony of William B. Shipman on Behalf of Alabama Power Company (ff. Tr. 953), Direct Testimony of Jesse E. Love, James E. Sundergill and David H. Jones on Behalf of Alabama Power Company (ff. Tr. 978) (hereafter L/S/J), Direct Testimony of Vincent S. Noonan on Behalf of Alabama Power Company (ff. Tr. 1225) (hereafter Noonan), and Direct Testimony of Philip A. DiBenedetto on Behalf of Alabama Power Company (ff. Tr. 1227) (hereafter DiBenedetto).

DECEMBER 1984 SER

Q4. Messrs. Jones and McKinney have testified that with the issuance of the December 13, 1984 Safety Evaluation Report (SER), Alabama Power Company understood that it complied with all of 10 C.F.R. § 50.49. In your opinion, did the December 13, 1984 SER convey to APCo NRC Staff acceptance of APCo compliance with all of the requirements of 10 C.F.R. § 50.49? (J/McK Q&A 17, pp.33-35)

A. (Shemanski) No. To begin with, I am very familiar with the final environmental qualification SERs that were sent to each licensee for the 71 operating reactors.

I attended each of the one-day meetings with the 52 licensees of the 71 operating reactors in 1984 to discuss the licensee's proposed method of resolution of the environmental qualification deficiencies identified in the 1982-83 SERs. I had responsibility for drafting each of 71 SERs issued in 1984-85.

The December 13, 1984 SER (APCo Exh. 21) for the Farley facility does not state what APCo attempts to attribute to the document. Messrs. Jones and McKinney, and other APCo witnesses, have taken the statement, "Alabama Power's [sic] electrical equipment environmental qualification program complies with the requirements of 10 C.F.R. § 50.49" in the Conclusions section on page 9 of the SER out of context and assert that the statement meant that APCo was in compliance with the requirements to 1) identify equipment required to be identified, 2) qualify that equipment, and 3) document the qualification of the equipment.

That interpretation simply is not reasonable given the wording of the entire SER and the information promulgated by the Commission at the time licensees were meeting with the NRC Staff to resolve environmental qualification issues. The Conclusions section on page 3 of the SER states that the conclusions are based on the SER Evaluation which, in turn, is based on the NRC Staff's audit review of 1) the licensee's proposed resolutions of the environmental qualification deficiencies identified in the January 31, 1983 SER and January 14, 1983 FRC

TER, 2) compliance with the requirements of 10 C.F.R. § 50.49, and 3) justification continued operation (JCO) for those equipment items for which the environmental qualification is not yet completed. Each of these three basis for the NRC Staff's evaluation is discussed in detail in the SER. The "Compliance With 10 C.F.R. 50.49" section begins on page 5, discusses the "approach" used by APCo to identify equipment within the scope of paragraph (b)(1) of 10 C.F.R. § 50.49, the "method" used to identify equipment within the scope of paragraph (b)(2), and the "approach" to identify equipment within the scope of paragraph (b)(3). The findings of the NRC Staff regarding compliance with 10 C.F.R. § 50.49, as stated on pages 6 and 8 of the SER were that the NRC Staff found APCo's "approach" and the "methodology" being used to identify items within the scope of 10 C.F.R. § 50.49 acceptable. The NRC Staff was not approving specific items on the Farley Master List nor can the SER reasonably be read to draw such a conclusion.

The "Proposed Resolutions of Identified Deficiencies" on page 4 of the SER, (APCo Exh. 21) describes how the NRC Staff discussed proposed resolutions for equipment qualification deficiencies identified in the January 31, 1983 SER that were discussed with APCo during the January 11, 1984 meeting with the licensee. The section clearly states that the NRC Staff has not reviewed additional analyses or documentation and that "[t]he licensee's equipment

environmental files will be audited by the Staff during follow-up inspections to be performed by Region II, with assistance from IE Headquarters and NRR staff as necessary." The section goes on to state that "the primary objective of the file audit will be to verify that they contain the appropriate analyses and other necessary documentation to support the licensee's conclusion that the equipment is qualified." The section concludes on page 5 with the NRC Staff finding that the licensee's approach for resolving the identified environmental qualification deficiencies was acceptable.

The "Justification for Continued Operation" section on page 8 of the SER (APCo Exh. 21) simply restates APCo's own statements to the NRC in APCo's letters of March 14 and May 13, 1983, that it was the judgment of Alabama Power Company that all electrical equipment important to safety within the scope of 10 C.F.R. § 50.49 at Farley Units 1 and 2 was environmentally qualified and Justifications for Continued Operation were not necessary.

The interpretation Messrs. Jones and McKinney, and other APCo witnesses, have given the statement, "Alabama Power's [sic] electrical equipment environmental qualification program complies with the requirements of 10 C.F.R. § 50.49," also is not reasonable given the nature of the one-day meetings the NRC Staff had with each licensee. During the one-day meeting, the format was generally the same. Although I don't recall the specifics in every detail, I do

recall the format of each meeting. The intent of the meeting was to go over each and every deficiency, identified by the Franklin TER, and from the licensee, hear how these deficiencies were going to be resolved, either through testing, additional analysis, or replacement. The NRC Staff, during the meeting, gave guidance to the licensee as to whether or not the licensee's proposed method of resolving these deficiencies would be acceptable.

Again, since the meetings took place approximately seven years ago, it is difficult to recall any specific details, but I do recall that we also spent time with the licensee about the verification inspections that were planned. We tried to give the licensee some advance knowledge as to what we would be looking for. During the meetings with the licensees, we discussed the two-phase approach to the inspection itself where we would devote two to three days reviewing documentation including test reports analyses, that type of information, and then it would be followed up by a plant walkdown, a physical inspection of the equipment selected from the master list to be audited or inspected. We also told the licensees we would be looking to ensure that the orientation of the equipment, the way it is physically installed in the plant, matches the way it was tested in the autoclave, the EQ test chamber, and that there was a correlation between the test report and the physical installation of the component. While a component could be qualified as tested, its qualification status could be voided simply through

installation errors. We alerted the licensees that we would be looking for these types of things and of our expectations during the verification inspections.

In summary, when the NRC Staff wrote the December 13, 1984 SER (APCo Exh. 21), we made a finding that APCo's methodology was sufficient to substantiate compliance with 10 C.F.R. § 50.49. The NRC Staff had not reviewed in detail any of APCo's or any other licensee's documentation at the time of the late 1983 and early 1984 meetings with the licensees. The final environmental qualification SER issued to each licensee was based on the Franklin TER, the meeting with the licensee, and the submittal each licensee made after the licensee had met with the NRC Staff. Throughout this process, the NRC Staff regarded the independent review it would conduct during the follow-up inspection as the final verification of a licensee's compliance with the requirements of 10 C.F.R. § 50.49 and the SER clearly stated this process.

Q5. What was the rationale for the NRC Staff stating that continued operation will not present undue risk to the public health and safety in the Conclusions of the December 13, 1984 SER, and the final environmental qualification SERs issued to other licensees in the 1984-85 time frame?

A. (Shemanski) Pending independent NRC Staff review, we relied upon the assertions and analysis by the licensees that their equipment was qualified or that

a Justification for Continued Operation (JCO) assured that the plant could go to and maintain a safe shutdown in the event of a design basis accident. For those licensees that submitted JCOs, we reviewed the JCO for deficiencies requiring shutdown. Alabama Power Company asserted that all of their equipment was qualified and they did not submit any JCOs. The testimony of APCo's own witness, Mr. Noonan, corroborates the NRC Staff practice of relying on licensees' assertions when he testifies in response to a question from Judge Bollwerk, (Tr. 1293)

> JUDGE BOLLWERK: But again, given the recognition that it's the licensee's responsibility for safe operation, would the staff, consistent with that idea, make some kind of a broad safety finding?
>
> WITNESS NOONAN: Yes, sir. The staff was always under direction to make a safety finding, but only on the basis that the utility made the statement first. That was historically, in every [illegible] that I was involved with when I was at the staff, it was always our contention that the utility has to say first it's okay to operate. And then we would come in and concur with that position.
>
> And every SER that I was ever involved with, that's exactly the basis for the SER. We wrote, early on we wrote something we called EERs, which were engineering evaluation reports. And the reason we called those EERs was, after the final review of the document -- it started out to be a safety evaluation, it started out that way.
>
> After we got done, if we found that the utilities could not make the statement first that the plant was safe to operate because of the lack of data, we withdrew our safety conclusions, and issued an engineering evaluation.
>
> Basically, it said: Here's where you stand. Now come back and fill in the holes. So if the utility can't draw the

conclusion first, then as a staff member in 1984, and before that, I can't draw a conclusion either.

Q6. Was the Commission aware of this policy of allowing plants to operate while licensees' assertions of environmental qualification were still undergoing NRC Staff review?

A. (Shemanski) Yes they were. In fact, the Commission explained their rationale for relying on licensees' assertions pending independent NRC Staff review in a Commission Policy Statement on environmental qualification published in the *Federal Register* on March 7, 1984. 49 Fed. Reg. 8422, March 7, 1984 (Staff Exh. 61). The policy statement explained the Commission's response to a court decision regarding a Commission rule which removed the June 30, 1982 deadline for the completion of environmental qualification from certain power plant licenses, and described the actions the NRC was taking regarding environmental qualification. Section IV, Current Commission Policy, stated the technical and policy reasons why the Commission relied on licensees' assertions regarding environmental qualification pending independent NRC Staff review. Those reasons included the determination the NRC had made during the licensing process that a licensee was technically capable of operating its plant safely.

Q7. APCo asserts that the NRC Staff "approved" the Farley Master List and documentation submitted in support of the environmental qualification of electrical equipment at Farley in the earlier SERs issued by the NRC Staff. Did these early SERs reflect review and approval by the NRC Staff of detailed environmental qualification documentation and master lists? (J/McK Q&A4, pp.3-6; Tr. 907, and Tr.1055)

A. (Shemanski) No they did not. It may be helpful here to go back to the same policy statement I referred to in the answer to question 6, above. That policy statement, 49 Fed. Reg. 8422, March 7, 1984 (Staff Exh. 61), also outlined the background of the environmental qualification rule, including licensees' submittals in response to IE Bulletins 79-01 and 79-01B. The Background section describes the 1981 and the 1983 rounds of progressively more detailed safety evaluations for all operating reactors and the NRC Staff reliance on the licensees' assurances during these early reviews.

The conclusions in the 1981 SER were made with regard to compliance with Commission Memorandum and Order CLI-80-21, 11 NRC 707, a 1980 document. That was the first attempt by licensees to compile EQ documentation, which resulted in the Franklin Technical Evaluation Reports. That documentation was old, although it was the best the licensees had at the time. The NRC Staff recognized that there were many deficiencies in this documentation. Licensees

in a lot of cases simply did not have adequate documentation to demonstrate qualification. The early documentation provided a starting point, but it was not by any means considered to be the final word. APCo's own witness, Mr. Noonan, agrees with this point when, in answer to Judge Bollwerk's question regarding SERs, Mr. Noonan testifies, (Tr. 1293, ll.13-17)

> Because back in 1979 and 1980 we didn't have much to go on. There wasn't much qualification data available to the staff to review. You can see that by looking at those early SERs and TERs. There are just a lot of holes. So it was like that.

It is also helpful to bear in mind that the Final Rule on the Environmental Qualification of Electrical Equipment Important to Safety (10 C.F.R. § 50.49) was not published until January 21, 1983. In promulgating that rule, with its compliance deadline date of November 30, 1985, the Commission stated that it was amending its regulations to clarify and strengthen the criteria for environmental qualification of electrical equipment important to safety. In the Summary of the Statement of Considerations for 10 C.F.R. § 50.49, 48 Fed. Reg. 2729, January 21, 1983, the Commission stated,

> Specific qualification methods currently contained in national standards, regulatory guides, and certain NRC publications for equipment qualification have been given different interpretations and have not had the legal force of an agency regulation. This amendment codifies the environmental qualification methods and criteria that meet the Commission's requirements in this area.

The second round of SERs issued in 1983 were to adopt the Franklin Research Center's conclusions regarding Inform submitted by licensees in 1981. Although the early documentation submitted was rather weak, it allowed us to conduct the one-day meetings and discuss the deficiencies with the licensees. The NRC Staff told the licensees that it would verify, through the inspection process, that the documentation fully supported environmental qualification.

The 1984-85 SERs were the first time the NRC Staff addressed environmental qualification after promulgation of 10 C.F.R. § 50.49. Keeping in mind, that the information looked at was old, it was the best available at the time. It served its purpose of providing information for the one-day meetings and allowed the NRC Staff to generate an SER. The NRC Staff found the plants in compliance with 10 C.F.R. § 50.49 if the licensee's assertions regarding methodology for complying and any justifications for continued operation the licensee submitted seemed appropriate, subject to audit during follow-up inspections.

The 1981 and 1983 SERs were part of a series of reviews conducted by the NRC Staff based on submittals and subsequent submittals by the licensee, beginning with the licensee's response to Bulletin 79-01B. It was a process where the licensee sent in information, Franklin evaluated the information, the NRC Staff issued a preliminary TER, wrote an SER, a final TER, and a final SER. It

was a series of documents, each one being somewhat more detailed than the previous one regarding the qualification status of the licensee's program.

Q8. Even if APCo incorrectly understood that the December 13, 1984 SER conveyed NRC Staff acceptance of APCo compliance with all of the requirements of 10 C.F.R. § 50.49, did not Generic Letter 84-24, which was issued on December 27, 1984, put APCo on notice of what was necessary for licensee certification of compliance with 10 C.F.R. 50.49?

A. (Luehman and Shemanski) In our opinion, absolutely yes. First of all, certification of compliance with a Commission regulation must come from the licensee. The Commission relies on its licensees to carry out regulatory requirements in a responsible manner, subject to NRC Staff review and audit. It is the licensee's technical capability to operate and know its plant, and not the NRC Staff's limited audit reviews, that must form the basis for a finding that a licensee is in compliance. Notwithstanding this underlying licensee responsibility for determining compliance with Commission requirements, the NRC Staff and licensees were aware, as of December 1984, that the NRC Staff had not yet begun the verification inspections of licensee compliance with the equipment qualification rule. Therefore, certification of compliance could only come from each licensee to specifically ensure that all the requirements of 10 C.F.R. § 50.49, which had

been published well after the early NRC inspections regarding any type of EQ matters, were properly addressed. The information needed for this certification included (1) response to generic correspondence, (2) completeness of the Master List, (3) documentation file adequacy, and (4) in-plant implementation and verification. As Mr. Shemanski has discussed in his testimony above, these matters were not addressed in the December 13, 1984 SER (APCo Exh. 21).

Generic Letter 84-24 (Staff Exh. 62) stated that 10 C.F.R. § 50.49 had clarified and strengthened the criteria for environmental qualification of electric equipment important to safety and included a copy of the rule for the information of licensees. The NRC Staff recognized that generic correspondence regarding environmental qualification had issued before, during, and after the NRC Staff one-day meetings conducted with the 52 licensees during 1984, and which Mr. Shemanski has described in his testimony above. To account for this, paragraph 3 of Generic Letter 84-24 (Staff Exh. 62) made clear that,

> The certifications described in (a), (b), and (c) above should specifically address all IE Bulletins and Information Notices that identify EQ problems, to the extent that such bulletins and notices are relevant to the licensee's facility. The following Bulletins and information Notices are considered applicable to these certifications: IE Bulletin 82-04, IE Information Notices 82-11, 82-52, 83-45, 84-23, 84-44, 84-47, 84-57, 84-68 and 84-78.

In Alabama Power Company's case at least three of the IE Information Notices called out in Generic Letter 84-24 (Staff Exh. 62), clearly should have made APCo knowledgeable of problems which were identified as violations in the subsequent EQ verification inspection. IE Information Notice 84-47 (Staff Exh. 48), concerning terminal block leakage, dated June 15, 1984; IE Information Notice 83-72 (Staff Exh. 55), concerning environmental qualification testing experience, dated October 28, 1983, and which addressed the Limitorque Motor Operator terminal block and T-Drain issues; and IE Information Notice 84-57 (Staff Exh. 44), concerning operating experience related to moisture intrusion in safety-related electrical equipment, dated July 24, 1984, directly addressed the States and GE terminal block, the Limitorque Motor Operated Valve, and the Chico A/Raychem Seal deficiencies identified in the EQ verification inspection at Farley. At the very least, a review of the summary sections of the SANDIA reports referenced in IE Information Notice 84-47 (Staff Exh. 48), which APCo has testified it did (Tr. 1098), clearly should have alerted APCo that what it had proposed for resolution of terminal block leakage in January 1984 did not address the issue discussed in the June 1984 information notice.

In summary, Generic Letter 84-24 (Staff Exh. 62) required each licensee to certify, under oath or affirmation, that its plant was in compliance with the Commission's environmental qualification requirements. Further, Generic

Letter 84-24 alerted licensees, when making that certification, to "specifically address all IE Bulletins and Information Notices that identify EQ problems, to the extent that such bulletins and notices are relevant to the licensee's facility," and listed those IE Bulletins and Notices of concern, some of which, as in the case of Alabama Power Company, had issued well after the licensee's one-day meeting with the NRC Staff, which was the most recent information input for APCo's December 1984 EQ SERs (APCo Exh. 21).

Q9. Did any licensee assessed a civil penalty under the Modified Enforcement Policy, other than APCo, assert to the NRC Staff that the final EQ SER issued in the 1984-85 time frame was an NRC Staff finding that the licensee was in compliance with all of the requirements of 10 C.F.R. § 50.49?

A. (Luehman) No. We issued over 20 civil penalties under the Modified Enforcement Policy and only Alabama Power Company has asserted that the December 13, 1984 SER (APCo Exh. 21) issued to it conveyed the NRC Staff finding that Farley was in compliance with all of the requirements of 10 C.F.R. § 50.49. Some other licensees, in response to civil penalties under the Modified Enforcement Policy, asserted that their final EQ SER conveyed an NRC Staff finding that a qualification approach was acceptable or that a particular item of equipment had previously been accepted as qualified. However, no other licensee

asserted that the SER conveyed the finding that all of the requirements of 10 C.F.R. § 50.49 had been met.

(Shemanski) The final EQ SERs Mr. Luehman is referring to were issued to the 52 licensees in the 1984-85 time frame and all contained similar language regarding the NRC Staff's conclusions and the evaluation that was the basis for those conclusions.

ENFORCEMENT MATTERS

Q10. How do you respond to the statements made by various APCo witnesses that the NRC Staff and Alabama Power Company routinely used undocumented engineering judgment to determine equipment qualification but now, for enforcement purposes, that standard has changed? (J/McK Q&A5, pp.6-11; DiBeneddetto Q&A68, pp.60-61; Noonan Q&A33, pp.25)

A. (Luehman) The NRC Staff has in the past and continues to accept oral statements from licensees during various meetings and proceedings that based on engineering judgment a particular piece of equipment was qualified or operable. However, the NRC Staff has operated on the premise that the Licensee if called upon could follow-up such statements and provide a documented basis for reaching such conclusions. This position is consistent with that the NRC Staff articulated in the

Order Imposing Civil Penalty which states that undocumented engineering judgment does not provide a complete auditable record and cannot be independently scrutinized. As stated on page 4 of the Safety Evaluation Report transmitted to APCo via a letter dated December 13, 1984 when discussing follow-up inspections that would take place, "Since a significant amount of documentation has already been reviewed by the NRC Staff and Franklin Research Center, the primary objective of the file audit will be to verify they contain the appropriate analyses and other necessary documentation to support the licensee's conclusion that the equipment is qualified." Clearly, this statement addresses analyses APCo may have told the NRC Staff it had made or judgments it had made without providing written support. If the NRC Staff had reviewed everything to the final necessary level of detail as APCo alleges and if, as APCo's witnesses assert, documentation of engineering judgment was unnecessary, then there would have been no need for the statement in the SER, and file review during the follow-up inspections would have been unnecessary.

APCo's witnesses' claim that the level of detail required by the NRC Staff increased significantly in the 1986-87 timeframe is not supported by fact. First and most importantly, following the reviews done on the APCo EQ program in the 1979-81 timeframe, 10 C.F.R. § 50.49, and specifically 10 C.F.R. § 50.49(j), became effective increasing the showing necessary to demonstrate qualification.

Following that significant milestone, the NRC Staff undertook a number of pre-deadline inspections to monitor industry progress. For instance, an inspection was performed at the Calvert Cliffs Nuclear Power Plant in October 1984. In the inspection report issued January 29, 1985 that documents that inspection (Staff Exh. 63), the inspectors reviewed various qualification files and stated in p.2 of the report that an auditable file for the purposes of 10 C.F.R. § 50.49 is information which is "documented and organized so as to be readily understandable and traceable to permit independent verification of inferences or conclusions based on the information." (emphasis added). The report then goes on to described findings in EQ files which are very similar with regard to level of detail to the NRC Staff's concerns with the APCo files. Interestingly, Mr. LaGrange, who previously provided a joint affidavit on behalf of APCo in response to the Notice of Violation and Proposed Imposition of Civil Penalty, was a member of the NRC team that produced that report and Mr. Noonan, an APCo witness, was then NRC Staff's Chief of the Equipment Qualification Branch, and was sent a copy of the report. Further, Mr. R. Bell an employee of the Bechtel Power Corporation, the same company that provided both pre- and post-deadline EQ consulting services to APCo, was a utility EQ consultant listed in the inspection report. Other inspections such as the one performed at Ft. Calhoun Station during April and May of 1985 and documented in an inspection report

dated July 26, 1985 (Staff Exh. 64) illustrate the level of documentation the NRC Staff found necessary to comply with 10 C.F.R. § 50.49 and that documentation is clearly of the same type and detail as required by the NRC Staff at Farley in 1987.

Q11. How do you respond to the statements made by various APCo witnesses that the NRC Staff, for enforcement purposes, relies on an evolving level of knowledge obtained after the deadline and that the agenda from the August 1987 seminar at Sandia National Laboratories supports that contention? (J/McK Q&A5, pp.6-11; L/S/J Q&A34, p.43; DiBeneddetto Q&A33, pp.33-34)

A. (Luehman) The NRC Staff agrees that the level of knowledge in the EQ area has continued to increase over the years. However, as the NRC Staff stated in: Appendix A to the Order Imposing Civil Penalty (Staff Exh. 3), depositions, and direct testimony, the NRC Staff carefully applied only pre-deadline knowledge in applying the Modified Enforcement Policy in this case. The following are some examples that will illustrate the correctness of the NRC Staff's position. Each will be expanded upon in addressing the corresponding individual equipment violations. Before going into the examples, I will state that the NRC Staff has never denied that many of the types of findings discussed at the Sandia seminar

were in fact found at Farley. The issue is whether those types of findings resulted from post-November 30, 1985 knowledge.

The NRC Staff's interest in and concern with terminal block leakage currents is documented in the Ft. Calhoun report (Staff Exh. 64) (see report p. 12), in an inspection report for Crystal River 3 which was issued June 10, 1985 documenting a March 1985 inspection (Staff Exh. 65) (see report p. 14), and finally on p.12 in a Calvert Cliffs inspection report dated January 29, 1985 (Staff Exh. 63) documenting an October 1984 inspection.

GEMS level transmitters were also inspected in the March 1985 Crystal River inspection (Staff Exh. 65) (see report p. 13). Reviews of licensee responses to IE Information Notice 83-72 (Staff Exh. 55) including the documenting of licensee initiated internal complete walkdowns (which a number of APCo witnesses have testified were not industry practice prior to the deadline) are contained on p. 12 of the above referenced Calvert Cliffs report (Staff Exh. 63) as well as on p. 15 of a November 1, 1985 report documenting a July 1985 inspection at Point Beach (Staff Exh. 66). Finally, the NRC Staff's concern with lubrication as a qualification issue is discussed on p. 13 of the above referenced May 1985 Ft. Calhoun report (Staff Exh. 64).

Q12. Did the NRC Staff, as various APCo witnesses assert, require walkdowns of the internals of electrical equipment? (L/S/J Q&A18, pp. 19-20; DiBeneddetto Q&A42, p. 44; Noonan Q&A24, pp. 20-21)

A. (Luehman) No, the NRC Staff has never asserted that such walkdowns were required. However, the NRC Staff maintains that certain information APCo had in its possession should have highlighted the necessity of such walkdowns. Contrary to the assertions of APCo witnesses, other licensees were responding to NRC generic issuances such as IE Information Notice 83-72 (Staff Exh. 55) by performing internal component inspections. Mr. R. Bell of Bechtel Power Corporation, who was an EQ consultant to the Baltimore Gas & Electric was present during the NRC inspection at Calvert Cliffs in October 1984 (Staff Exh. 63) where such actions were reviewed by the NRC inspectors. Specifically, review of the results of licensee initiated walkdowns based on the notice were documented. Information concerning such an inspection would have been available to APCo as Bechtel was its primary EQ contractor. Mr. DiBenedetto, who as he states on p. 9 of his Direct Testimony (DiBenedetto p.9), kept abreast of technical and regulatory developments, was aware of this and other pre-deadline inspections, such as Point Beach, that looked at this area. Additionally, with respect to the Calvert Cliffs inspection both Mr. Noonan, an APCo witness, and Mr. LaGrange,

who submitted a joint affidavit with Messrs. Noonan and DiBenedetto, were in supervisory positions overseeing NRC EQ efforts at the time of the inspection.

Q13. Is APCo's position correct that under a 1987 inspection approach, the NRC Staff inspector could simply ask a question and because of a lack of understanding on the part of the inspector, create a violation? (L/S/J Q&A29, pp.32-34)

A. (Luehman) That is simply not true. Before determining whether a violation exists, an inspector discusses his findings with other inspectors, his supervisor, and his regional management. A review of inspection reports for Farley and other licensees shows that there were numerous issues that the inspectors questioned the licensees about extensively, and in some cases identified as "unresolved," that ultimately, were never cited as violations.

Q14. How do you respond to the assertion of APCo's witnesses that "...others more versed in qualification issues, would often not have needed such detailed documentation to understand (i.e., "audit") the bases for conclusion documented in the files."? (L/S/J Q&A29, pp.32-34)

A. (Luehman) Clearly, APCo's witnesses imply that the NRC inspectors that participated in the Farley inspection were not technically versed enough in the EQ area to understand what APCo's witnesses allege are obvious correct engineering

judgments. The NRC inspectors were well versed in EQ. For example, and as demonstrated by their resumes (Staff Exh. 1), in addition to having performed numerous EQ inspections for the NRC prior to Farley, Mr. Wilson had worked for an engineering firm doing consulting in the EQ area, Dr. Jacobus has a Ph.D. in Electrical Engineering and in addition to acting as an NRC contract inspector has done testing work in the EQ area, Mr. Levis was also an industry consultant in EQ prior to becoming an NRC inspector, Mr. Paulk previously worked for a nuclear utility and had done work in the EQ area, and Mr. Merriweather has a masters degree in electrical engineering and was involved with some of the initial work done by the NRC Staff on EQ at Farley.

MITIGATION AND ESCALATION

Q15. How do you respond to APCo's claim that NRC Inspectors' statements concerning APCo's efforts to comply with 10 C.F.R. § 50.49 show that APCo demonstrated best efforts in the context of the Modified Enforcement Policy? (J/McK Q&A5, pp.6-11)

A. (Luehman) I do not agree that Mr. Merriweather's statement regarding APCo efforts until December 1984 confers either his or the NRC Staff's overall assessment of APCo's best efforts. The NRC Staff is already on the record

(page 41 of Appendix A of the Order Imposing) (Staff Exh. 3) as stating that APCo's programmatic efforts in the 1979-1985 time frame were considerable.

The NRC Staff went on to say that such efforts do not single out APCo over other licensees. In the Commission policy statement concerning environmental qualification issued March 7, 1984 (Staff Exh. 61), the Commission recognized that all utilities had expanded considerable resources in addressing 10 C.F.R. § 50.49. It was with efforts to that point, as a baseline reference, that best efforts were evaluated.

Escalation of the civil penalty for best efforts was made because of APCo's lack of proper implementation and verification of the program that had been designed. Despite numerous generic issuances raising questions in the EQ area prior to the deadline APCo was largely satisfied to rely on the Franklin Research Center TER when many other licensee's were proactively responding to NRC issuances and finding problems. Mr. Jones, the engineer who oversaw the program from the corporate office, was initially a very inexperienced non-electrical engineer who by his own testimony relied on outside expertise. (J/McK Q&A9, p. 25). While such an arrangement was acceptable, it could, and did in this case, place APCo in a position where, with a deadline approaching, industry known problems were not being properly evaluated. For example, Mr. Love testified in his deposition (pp. 66-68):

Q. Okay. Now, in general, with regard go(sic) Generic Letters and information notices, that touched on environmental qualifications, would you offer specific advice to the client, in this case Alabama Power Company?

A. Specifically to Alabama power Company; that is the question/ How would that --

Q. Yes, sir?

A. -- process work? With Alabama Power Company, the initial responsibility for looking at the IE Notices or Circulars, remained with them. In other words, the agreement which existed was that they would do the initial evaluation. If they required Bechtel assistance, then they would prepare a request for that assistance which, again, would be in the format of say, licensing support or -- request or a letter requesting us to do a specific evaluation.

Q. Okay. Is it fair to say then, if a client, in this case, Alabama Power Company, did not ask for specific advice, with regard to a particular information notice or bulletin, then you would not provide that to them?

A. That is correct. If they did not ask for a specific advice, we would not specifically provide it on a project; that is correct.

Mr. Love went on to "clarify' his answer by testifying,

THE WITNESS: Okay. What -- I am talking about formal responses and formal requests. That is not to say that, in my discussions with David Jones or one of the personnel at APCo, if I was aware of something, that's possible. I may have discussed it with them on the phone, to see if they've seen it, you know, or are they working on it, whatever -- bring it to their attention type of thing. That is a possible that would be done, whether or not it is a formal request of this.

This above description by Mr. Love indicating that the initial responsibility for generic issuances was APCo's and that only if they required Bechtel assistance

would a request be made, contrasts sharply with Mr. Sundergill's description in his deposition (pp.34-35) of his relationship with the utility on the Grand Gulf project where he stated,

> Q. It may sound like I've asked this before, but I just want to pin it down a certain way. There was not a situation that you recall where you would wait for the utility to task you with something, let's say, an information notice.
>
> A. We would not have performed any work that the utility did not direct us to. There were contractual obligations.
>
> Q. I'm speaking in terms of I've got this information notice, I'm Mr. Sundergill, and I think something needs to be done. You wouldn't sit and wait to see if the utility was going to tell you to do something. You would bring it to their attention.
>
> A. Yes. If they hadn't contacted us first, we would contact them. In the case that we thought there was some impact, we evaluated information that came through and it was determined there was no impact; something that, like I say, it was a BWR reactor and if there was something to do with steam generators, we probably wouldn't have called them.

As discussed elsewhere, many of the problems identified at Farley, in addition to being the subject of generic issuances, were discovered in NRC pre-deadline inspections. The results of these inspections were known to the NUGEQ (who had representatives present during a number of the inspections), Bechtel (the company that was APCo's EQ consultant), NUS Corporation (another company providing EQ consulting services, who had representatives at the Crystal River inspection), and the utilities involved. APCo was apparently unaware of

these issues because of its inexperienced lead engineer, a sometimes one-way relationship with its prime EQ consultant, and an admittedly overly confident attitude as summarized in the April 13, 1988 summary of the enforcement conference (Staff Exh. 13). Finally, while APCo undertook an extensive review of its EQ program implementation following the deadline, many other licensees did that before the deadline. For example, Mr. Levis testified (Tr. 613-14) that prior to joining the NRC, he worked for a company that performed EQ audits, including walkdowns, in the 1984-85 timeframe for six different utilities at 10 different sites. Additionally, the reports documenting pre-deadline NRC inspections at various reactor sites demonstrate that utilities were also performing similar internal audits based on generic issuances such as Information Noticies 83-72 (Staff Exh. 55) and 84-07 (Staff Exh. 48). All of the above factors support the NRC Staff escalation for best efforts.

Q16. How do you respond to Mr. Shipman's position concerning APCo's action with respect to the change-out of the V-type splices in the containment for motors? (Shipman Q&A 10, pp.8-10; Q&A 11, pp.10-11)

A. (Luehman) First of all, it is clear from the way Q10 was posed to Mr. Shipman for his direct testimony, APCo still does not understand the NRC Staff's concern. The NRC Staff does not assert that APCo was required to issue a justification for

continued operation and immediately declare the remaining fan motors inoperable. Rather, APCo was required to do one or the other. By Mr. Shipman's own testimony APCo did not complete the justification for operation and hence without justification, operation of Unit 2 should have ceased. Unit 1 was unaffected because even though the justification was never completed the replacement of the splices on that Unit brought it into compliance with the Technical Specification Action Statement within the time required.

Mr. Shipman notes that while a justification for continued operation was never completed "we made a prompt determination of operability". While I understand what a justification for continued operation with regard to environmental qualification is and the level of documentation that it required (because of the existence of Generic Letters 85-15 and 86-15), I have no idea what determination Mr. Shipman is referring to or how he felt it was acceptable if it didn't meet the NRC's written guidance. Again with respect to Q11, the NRC Staff never alleged that simply because on environmental qualification concern was discovered Technical Specification action had to be taken. A completed justification for continued operation would have been sufficient.

With regard to Mr. Shipman's statement that the NRC Staff's concern is a new allegation I would simply point out this concern was addressed in the Notice of Violation and Proposed Imposition of Civil Penalty and was discussed

in detail in the Order Imposing Civil Penalty. The fact that the NRC Staff never issued a violation for failure to adhere to the Technical Specification is within the NRC Staff's discretion as the improper response to the issue was considered in escalating the civil penalty for improper corrective action.

Finally, with respect to Mr. Shipman's argument that APCo's actions were more conservative than required by the Generic Letter guidance, I fail to understand how waiting nine days to address the first splice on Unit 2 was conservative.

INSPECTIONS CONDUCTED AT FARLEY

Q17. During cross-examination on the NRC Staff's direct testimony APCo counsel questioned the V-type splice panel extensively on the relationship of the inspection in September 1987 and the one conducted in November 1987. Can you explain the relationship between the two inspections and what, if any, bearing the performance of two inspections had on application of the Modified Enforcement Policy? (Tr. 345-54)

A. (Luehman) Originally, the NRC Staff intended to inspect APCo with one two-week inspection (one week for walkdown and one week for file review). That inspection is the one that took place in November 1987 (Staff Exh. 12). However, prior to that inspection, in response to findings reported by APCo that

were similar to those previously reported by another licensee, NRC Region II management made the decision to conduct a reactive (non-routine) inspection to evaluate what we call the V-type splice issue. That inspection was conducted in September 1987. At the end of that inspection the V-type splice issue was left as an unresolved item in an inspection report (Staff Exh. 11). The item was left unresolved not because the NRC Staff had questions about the splices' qualification status, but rather because the issue of how to handle enforcement of the issue had yet to be resolved.

For purposes of the Modified Enforcement Policy the findings of the two inspections were considered together. This is consistent with other "first round" inspections where licensees identified issues after the November 30, 1985 deadline. Further, the Modified Enforcement Policy (Staff Exh. 4) makes an accommodation for this circumstance by providing for mitigation for licensee identified items. Such items were considered together with inspection identified items if they met the standards of the Modified Enforcement Policy for "clearly should have known" and sufficiently significant. The only difference in the APCo case was that rather than wait for the regularly scheduled inspection a safety decision was made to conduct an earlier inspection of the V-type splice issue.

The one difficulty that this situation of two inspections created was one of how to handle any additional information provided by the licensee "during or

shortly after the inspection" as provided for in the Modified Enforcement Policy. For the V-type splices the question would be, did that time period encompass only the first inspection period or both. As it turns out, that became a non-issue for Farley as the only additional significant new information APCo provided was the Wyle test results (Staff Exh. 25). Such testing performed after the deadline was unacceptable, regarding a violation under the Modified Enforcement Policy, whenever it was provided.

Q18. Does this complete your testimony regarding these matters?

A. (All) Yes.