

July 28, 1994

Mr. James Lieberman
Director
Office of Enforcement
United States Nuclear
Regulatory Commission
Washington, D.C. 20555

Mr. James L. Milhoan
Deputy Executive Director
for Nuclear Reactor Regulation
Regional Operations and Research
United States Nuclear
Regulatory Commission
Washington, D.C. 20555

Re: Response of Georgie R. Frederick to
the Demand for Information in the
matter of Georgia Power Company dated
May 9, 1994

Gentlemen:

The following summarizes what I believe to be the substance of
Violation D as it relates to me:

Mr. Frederick was aware that the audit was narrow in scope and did not identify a specific cause for the error in the number of eighteen starts reported in the April 19, 1990 LER. Also, Mr. Frederick was aware that observations stated in the audit report were inappropriately being used to identify the root causes for the errors in the April 19, 1990 LER. Further, Mr. Mosbaugh and Mr. Horton made Mr. Frederick aware of this inaccuracy, but Mr. Frederick, with apparent indifference, defended this inaccuracy. Also, Mr. Frederick was made aware by Mr. Mosbaugh on June 12, 1990 that, to identify the root cause of the error in the April 19, 1990 LER (i.e. personnel errors), the audit scope would need to include an assessment of the performance of the Unit Superintendent and VEGP General Manager, the individuals that developed the initial count. Yet, in the audit report, Mr. Frederick did not include either of these individuals in the list of persons contacted during the audit. Also, on June 29, 1990, Mr. Frederick was again made aware by Mr. Mosbaugh that the root cause for the difference was personnel error. Despite this knowledge, Mr. Frederick failed to adequately address these concerns prior to the issuance of the June 29, 1990 letter.

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I. PURPOSE AND SCOPE OF AUDIT

In response to the assertions contained in Violation D, it should be noted that the SAER Audit OP26-90/33 was titled "Special QA Audit of Unit 1 Emergency Diesel Generator Starts". The statement of Violation D implies that in some way I knew the audit had a narrow scope but that persons other than myself may not have had this knowledge. This implication is incorrect. All Georgia Power Company ("GPC") audits have a specific statement of the scope and purpose of the audit. In the case of Audit OP26-90/33, the Audit Scope clearly identified the Audit as a "narrow-scoped audit". The Purpose/Scope statement of the Audit stated "the purpose of this narrow-scoped audit, conducted at the request of management, was to verify the testing of the Unit 1 Emergency Diesel Generators ("EDG"). The scope of the Audit covered the testing conducted subsequent to the test performed in response to the failure of EDG 1A to start on March 20, 1990". While this is a simple restatement, I believe it more clearly recognizes that I made it very apparent in the Audit report what the Audit reviewed and the Audit's intent. I also believe that George Hairston, who directed the Audit, clarified this Audit scope. As noted in the NRC Vogtle Coordinating Group Analysis dated February 9, 1994, at Page 26, Mr. Hairston called me and directed the Audit specifically asking what the number was and why we were having trouble counting those numbers. (Transcript of interview of George Hairston, Exhibit "31", Pages 78-81). This request from the Executive Vice President was made after he was presented with differing diesel start counts while trying to revise the LER submitted on April 19, 1990. I was never tasked to do anything other than determine the accurate count numbers and determine why there was difficulty in arriving at the correct numbers.

The Audit was conducted pursuant to the direction I received from Mr. Hairston. The accuracy of the Audit's results was noted by the NRC in the description of Violation A, when it stated the correct number of consecutive successful starts was in fact the same number set forth in the Audit. In addition, in Violation C, the NRC acknowledged that the most reasonable point at which the "Comprehensive Test Program" ended was the first successful test to demonstrate operability, which was the same conclusion drawn by the Audit. Therefore, I believe that the NRC has concluded, that except for what the NRC refers to as the root cause determination, the work performed by the auditor and myself, as his supervisor, was accurate.

II. INDEPENDENCE OF AUDITORS

During my training and work in the Quality Assurance ("QA") Organization of the Georgia Power Company, it was always clearly emphasized that the auditing group remained independent of the on-site line management organization. My immediate supervisor, Manager Safety Audit and Engineering Review, was located in Birmingham, Alabama and reported directly to the Vice President of Vogtle Project. As a result, the on-site SAER Organization of which I was a part, was always able to act freely and without undue influence which I believe reflects the requirements as they are stated in the Code of Federal Regulations, Title 10, Part 50, Appendix B. The Organization chart included in the NRC's OI Report (enclosure 2) does not correctly show this organizational independence. This is not meant to imply that I operated in a vacuum but that I and the auditors who were under my supervision felt free to make decisions and express our concerns and opinions.

I stated during my deposition to the NRC that I recalled being asked to determine the number of diesel starts. This is the problem the Audit focused upon and it is my most vivid recollection, I believe, because of the attention this issue was being given by the Plant Review Board ("PRB") during the period of May and June, 1990. I attended most PRB meetings as a non-voting member and had access to information presented at formal board meetings. Lists of starts were presented to the PRB with different counts. We (the PRB) had particular difficulty with what was an accurate count of those starts based on the lists that were being presented. The membership of the PRB couldn't arrive at a good number. When I was directed by Mr. Hairston to determine the correct number of diesel starts, that is what I focused on and that is what I believed the limited scope of the Audit to be. As I stated above, I believe Mr. Hairston confirmed this in his statements cited by the Vogtle Coordinating Group Analysis at Page 26.

III. "ROOT CAUSE" DETERMINATION

As stated in its review of facts surrounding Violation D, the NRC concluded that I failed to determine "why the errors were made". It is my understanding that the NRC is referring to the errors in the April 9, 1990 Confirmatory Action Letter and the April 19, 1990 LER Submittal. I believe it is important to note at this

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point that I was not asked to identify why the errors were made in either the April 9, 1990 letter or the April 19, 1990 LER, but why personnel at the plant site could not agree on a correct number while trying to revise the April 19, 1990 LER. Numerous PRB meetings were held at which members were trying to put together a revised LER, and no one knew what the correct number was. Members of the plant staff were sitting around the PRB table with various documents and had not been able to agree on the correct numbers. I believed that I had been tasked to determine the correct numbers and why we were having trouble counting those numbers. Additionally, during the conversation with Mr. Mosbaugh on June 29, 1990 (Exhibit 57), I informed him that the SAER Audit report did not address "why the error was made," only what the conditions were that existed when the April 19 LER was written. (Exhibit 57 at P. 23). He acknowledged that the engineering log wasn't available and wasn't complete. The Vogtle Coordinating Group Analysis is in agreement in its finding that "as of June 29, 1990, GPC had not initiated any action to determine the root cause for the error in the April 9 letter". (Vogtle Coordinating Group Analysis, February 9, 1994 at Page 33.)

It is reported from a tape transcript of June 12, 1990, that I stated I not only had to come up with the number but that I was supposed to come up with why the discrepancy exists. I believe the NRC has incorrectly interpreted this to mean "why the error was made". Based on the transcript of the June 12, 1990 tape of this conversation and the proximity of the conversation to the date the Audit assignment was made, I believe I was stating that I had to explain why reasonable people at the plant site got different numbers when they tried to determine the diesel count for the revision to the LER. As I explained to Mr. Mosbaugh on June 12, 1990, because of the discrepancies in the various numbers reported to the PRB and the fact that "... the number I was supposedly investigating changed yesterday"... "We're writing our own numbers" to assure that the Audit Report was accurate. (Exhibit 97 at pages 23-24). I do not believe that I was stating that I had to explain the errors in the April 9 and April 19, 1990 documents in the Audit report. The "discrepancy" is the discrepancy among the count reports discussed at the PRB meetings.

IV. ALLEGED FAILURE TO INVESTIGATE PRIOR EFFORTS TO OBTAIN START COUNT

With regard to assessing the performance of Mr. Cash and Mr. Bockhold, as best I can determine, Mr. Mosbaugh said that I may have to talk to Jimmy Paul Cash and Mr. Bockhold during the audit. (Exhibit 97 at Page 24). Mr. Mosbaugh did not say anything about assessing their performance with regard to personnel error. During this conversation I believe I clearly emphasized why SAER would be looking at all of the various sources of diesel start information and that I believed that neither Mr. McCoy nor Mr. Hairston was aware of how diesel start information was kept and tracked. At this point in time, I was aware that several attempts had been made to revise the LER by the PRB and had resulted in rejected diesel start counts. I also understood that any document coming out of the Audit group would be scrutinized for accuracy. Also, I knew that reasonable groups such as Operations, Engineering Support and Technical Support could still not agree on the same number (as evidenced by PRB meetings). My most challenging task then was to determine an accurate start count.

As it was clear that various plant personnel could not agree on the correct numbers, the problem seemed to go beyond the single individual who made the start count for the LER. As a result, I was looking for a more generic reason for the error. It took from June 11 to June 29, 1990 to locate and review the records from Document Control that reported diesel starts and the evaluation of those starts. As the Audit stated, no one document was adequate by itself to identify the successful starts. Mr. Mosbaugh himself identified two sets of logs and one set of data sheets that recorded the start information. (Exhibit 97, Page 25). The last of the records needed by SAER were located on June 29, 1990 which was after several LER revisions were brought before the PRB. In addition, after the records were located, the point at which to start counting was ill-defined. Testimony and transcripts identified in the NRC OI Report show that several individuals could not agree on the start point. I believed, therefore, that the Audit had to define its start point for counting so concretely that any reasonable person could use that point and arrive at the same "diesel count". I also believed that that point had to have some reasonable basis with regard to ensuring that testing was complete.

V. THE AUDIT PROCESS:

The auditor and I agreed that when the surveillance test for operability was performed that the test program under all definitions had to be complete. That was the place to begin in counting the number of starts. I was not concerned how that number would compare in terms of start correlation or absolute value to the number reported in the letters of April 9 or April 19, 1990. This is part of understanding the independence of the Audit group in its work. As the transcript of the June 12, 1990 conversation emphasizes, when my supervisor, Mark Ajluni, asked me the question "Are you still doing this independently?" (Exhibit 97 at Page 38), in the presence of Mr. Mosbaugh, I answered "You bet".

During the June 12, 1990 conversation, much of Mr. Mosbaugh's comments tended to try and steer me away from looking too hard at the diesel record-keeping practices, including those of engineering support. Since he had responsibility for the diesel system engineer's records, I was alert to make sure that my review did not become biased. I made clear during the June 12, 1990 conversation with him that we were writing our own numbers on the diesel start information rather than starting with somebody else's numbers in order not to be biased. (Exhibit 97 at Page 23-28). Mr. Mosbaugh responded "right". (Exhibit 97 at Page 28).

Later in the conversation of June 12, 1990, my supervisor, Mark Ajluni, specifically underscored the need for the SAER Report to be independent of plant management interpretation. Mr. Ajluni directed me as follows: "You need to continue doing this independent of the effort that they are doing there [at the site]." (Exhibit 97 at Page 39). The object I understood was to go with our own objective number as determined by the SAER Audit team. As such, our report should be based upon our findings from a review of the appropriate logs not influenced by any previously involved plant personnel.

Violation D emphasizes, and apparently the principal basis for the Demand for Information is, that the Audit failed to identify the "root cause" of the error in the April 19, 1990 LER as personnel error. Programmatically, SAER audits do not identify "root causes". Corporate procedures and site procedures describe how audits are performed to verify compliance to program

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requirements and identify problems in the implementation of the programs. The determination of the root cause and corrective actions to be made are addressed by line management after researching the problems identified in the Audit report. Therefore, if I seemed "indifferent" to Mr. Mosbaugh's efforts to direct the course of the Audit and what areas should be investigated, that is a misconception. I purposefully resisted these efforts based on my understanding of the assignment given me by my supervision. I have stated that SAER acted independently in its work. That is how I believed it should have been correctly done. However, if Mr. Mosbaugh felt I was not going to conduct a proper audit, he could have easily contacted my supervisor, Mr. Ajluni and had the Audit scope revised, if desired by management.

In the Audit report the auditor and I stated that the error appeared to be the result of incomplete documentation. My reasoning for this statement at that time was as follows: Jimmy Paul Cash, or anyone else, even if he had been given a specific date and time to start his diesel count, would not have been able to accurately determine the correct count from either the control room logs or the engineer's diesel logs. The Audit correctly identified that these records were not complete or accurate when Mr. Cash conducted his count or later when the April 19, 1990 LER was submitted. Attempts by persons after the LER was submitted and prior to the SAER audit to arrive at an undisputed number met with the same problem, I believe. The OI Report describes this inability to resolve the "correct" number on Page 82 in a statement by Mr. Stringfellow. (References Exhibit 30, Pages 22-23). I believe I understood that Jimmy Paul Cash or others who assisted in gathering data for the LER had made an error and I also knew other personnel were having problems. The answer to why it occurred seemed to center more on the documentation available to Mr. Cash and others since April 9 and not to a mistake he might have made. Mr. Mosbaugh acknowledged as much on June 12 when he stated that the numbers previously provided to the NRC were wrong because the control room logs were used and they were not accurate. (Exhibit 97 at Page 27).

As I stated in my OI interview, I was on vacation and out of town during a major portion of the Audit. (June 19 to June 26, 1990) and did not take part in a number of the interviews. I believe that during that period of time I did talk with Mr. Cash about the Audit but not in any great detail. At that time I don't

believe that the auditor or I believed that Mr. Cash could personally help us to determine a "correct" diesel count.

Failure to Address Mosbaugh's Concerns on June 29, 1990

The Notice of Violation found me to be "indifferent" when Mr. Mosbaugh informed me that the root cause being stated in the June 29, 1990, LER revision and cover letter was not correct and that, despite this knowledge, I failed to adequately address his concern prior to the issuance of the LER revision. My discussions and differences with Mr. Mosbaugh were disagreements, based on judgment, knowledge and experience, not indifference. As is clear from our discussions of June 29, 1990, the Audit Report did not make a technical root cause finding. I made clear that the Audit Report did not address why the error in the start count was made, but specified what the condition was that existed when the LER was written. I pointed out to Mr. Mosbaugh that the log reports and start pages that should have been forwarded to the engineers were still being processed by Operations at the time the original LER was written. (Exhibit 57 at Pages 23-25). At that time I stated to Allen Mosbaugh and Mike Horton: "I think, Mike, we are unwilling to face the truth if we don't say the fact that we didn't do our record keeping right probably caused us to make the mistake." (Exhibit 57 at Page 25). I pointed out that upper management in Birmingham who are drawing the conclusion on the root cause were doing it from the facts that have been presented. The facts were that certain diesel start sheets had not been properly processed and the shift supervisor's log was not an accurate record. The Engineering Support diesel start logs were not updated until thirteen days after the LER was submitted. I suggested to Mr. Horton that he discuss with Mr. Majors the conclusions that were drawn from the Audit Report concerning the record keeping practices and root cause. This occurred in Mr. Mosbaugh's presence. Based on the facts that I had, I was comfortable with the root cause attribution, but did not want to preclude the factual input of others, if they desired.

Beyond the information the Audit Report provided, I informed Mr. Tom Greene that I did not understand what other root cause Mr. Mosbaugh was talking about and that Mr. Mosbaugh should explain it to Mr. Greene. Mr. Mosbaugh then explained his belief that the error was due to personnel error, carelessness and

negligence. This was, to me, so general a statement as to say relatively nothing. Moreover, Mr. Mosbaugh did agree that the diesel log was not available and wasn't complete. (Exhibit 57 at Page 50). Messrs. Odom and Webb also confirmed that they were unable to arrive at an accurate diesel start count because the control room logs were not accurate.

Based upon the problems PRB personnel were having obtaining the correct diesel start numbers and the conversations above, I believed that what caused different people to get different counts was something other than personnel error, carelessness or negligence. Logically, the people who were counting the starts and reporting to the PRB were not all being careless or negligent, given the emphasis that was placed on the problem. However, they were reporting different results. In my opinion, this occurred because the records were incomplete and the point at which to start a count was not clearly defined. The Vogtle Coordinating Group also concluded that the end of the Comprehensive Test Program (CTP) was not defined prior to the issuance of the April 19, 1990 LER (Page 52). They further concluded that on April 19 Mr. Mosbaugh could not identify the specific DG start that represented the starting point for the count. (Exhibit 36, Pages 21-26).

Based upon the knowledge I obtained during PRB meetings, and the difficulty of identifying the end of the CTP during the audit, it was reasonable to conclude during this June 29, 1990 conversation that Mr. Mosbaugh's statement that he had identified the end of the CTP on May 8, 1990, was incorrect. Without a defined starting point from which to count, different people obtained different results. This was the case surrounding the attempts to revise the LER between May 8, 1990 and June 29, 1990. Rather than being indifferent to Mr. Mosbaugh, I disagreed with his opinion. He provided no relevant factual information during our discussions which would cause me to discount my opinion as to why the mistakes occurred. My actions reflected my conviction for my own opinion and not indifference to Mr. Mosbaugh's concerns. Violation D also indicates that I erred in failing to determine that the General Manager failed to properly identify the correct point at which the "Comprehensive Test Program" was considered complete. During the period of May 8, 1990 to June 11, 1990, there were several occasions for plant line management to reconcile the point at which the diesel start count was made. I had attended PRB meetings where different versions of when to

start counting were discussed. I did not believe that I had been assigned the task of determining the VEGP General Manager's action in specifying the starting point since all of the managers bringing the proposed LER revisions to the PRB were line management directly below him and they had not identified the point. Possibly I erred in this when I did not pursue a determination and I truly regret this personal shortcoming if it was instrumental in an actual failure of the June 29, 1990 LER revision to properly explain how the errors in the letters of April 9 and April 19, 1990 were made. However, I do not recall any knowledge or reason to have suspected that Mr. Bockhold's involvement in the preparation of these documents warranted such a review nor do I recall being made aware of a need for this type of investigation other than Mr. Mosbaugh's statement that I would have to talk to him. In any event, based on the passage of time at that point and after reviewing the NRC's notice of violation and associated reports, I do not believe that I would have gained any significant insight had I ensured that a detailed interview of Mr. Bockhold was conducted.

My Professionalism

As I noted in my OI interview, my career in nuclear power started while I was in the Navy in 1961. I served in the Navy for twenty-three years in the nuclear program both as an enlisted operator and later as a Commissioned Officer. During that time, I was selected to work directly for Admiral Rickover and report to him weekly on the operation of the aircraft carrier prototype training facility (A1W) in Idaho. As the Chief Engineer on a twin pressurized water reactor nuclear cruiser, I was responsible for the operation and maintenance of the nuclear plant and the training of all nuclear personnel. Later I served on the Atlantic Fleet Operational Reactor Safeguards Examining Board (ORSE) for two years. During my time on the ORSE Board, I participated in over thirty examinations of nuclear ships and submarines to ensure that they were maintained and operated safely. I believe that my experiences working under Admiral Rickover and in other assignments instilled in me the strongest possible high standards for integrity and moral courage. I also believe it gave me the insights needed to put reactor safety above all other considerations.

When I joined the Georgia Power Company in November, 1984, I was personally interviewed by the Vice President of Quality Assurance, Mr. Paul Rice. When I completed my auditor training to obtain my ANSI certification, I was given a board examination by Mr. Rice. There was never any doubt in my mind that open and forthright communications with the NRC were part of the Quality Assurance job. I found this no different than the same standards which I have lived by for all these years. Both as an auditor and later as the supervisor of the Audit group, I interfaced directly with NRC inspectors on many occasions. To my recollection, this notice of violation and associated DFI is the only occasion that my actions have been questioned in terms of rigor or professionalism.

I believe I fulfilled the standards which I hold for myself, and those of the NRC. As stated above, I tried to provide an unbiased, factual review of the correct diesel count to my management. I was aware that line management at the site had not been able to accomplish this task successfully. This led me to make decisions that I believed to be logical and without influence from outside interested parties. I tried to ensure that the document produced under my supervision was clear in the description of its scope, content and conclusions. This was not done to protect the Audit group, but to ensure that management clearly understood what it said and how the Audit arrived at these facts. At no time following the completion of the Audit report did any line management or supervision criticize the scope, methodology or conclusions of the Audit Report. If I had known then that the NRC considered the scope of the Audit too narrow or that a specific investigation of the technical root causes for the errors in the diesel counts contained in two different documents should have been specifically addressed, I assure you that I would have carried out those tasks as diligently as I could, consistent with all of the actions I have taken or supervised during my career in nuclear power over the past thirty-three years. This was not, however, my task. And I continue to believe that the identified reasons for the differences in diesel counts in 1990 at various times, including between the original LER and revised LER, are true and accurate. I honestly do not understand how, in the absence of reliable and complete records, an accurate count could be made.

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I hope that the information and comments I have provided answer the Demand For Information issued by the NRC. Thank you for the opportunity of personally expressing my views on the Notice of Violation.

I hereby affirm that the above statement is true and correct to the best of my knowledge and belief.

Respectfully submitted,

Georgie R. Frederick

Georgie R. Frederick

Signed, sealed and delivered

in the presence of:

Patricia C. Clarke
Notary Public

PATRICIA C. CLARKE, NOTARY PUBLIC
HENRIB COUNTY, GEORGIA
MY COMMISSION EXPIRES 6-6-97