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NUDOCS

Georgia Power
the southern electric system

C. K. McCoy
Vice President, Nuclear
Vogtle Project

July 31, 1994

Docket No. 50-424
License No. NPF-68

Mr. James Lieberman
Director, Office of Enforcement
U.S. Nuclear Regulatory Commission
Attn: Document Control Clerk
Washington, D.C. 20555

GEORGIA POWER COMPANY
VOGTLE ELECTRIC GENERATING PLANT
REPLY TO NOTICE OF VIOLATION
AND PROPOSED IMPOSITION OF CIVIL
PENALTIES; EA 93-304

Dear Mr. Lieberman:

Pursuant to 10 C.F.R. § 2.201 Georgia Power Company ("GPC"), submits the enclosed information which responds to the Notice of Violation ("NOV") issued to the Vogtle Electric Generating Plant ("VEGP") and forwarded by the NRC's May 9, 1994 letter to Mr. H. Allen Franklin, President and Chief Executive Officer of GPC. The NOV alleges five (5) separate violations of 10 C.F.R. § 50.9 "Completeness and Accuracy of Information." That regulation requires a licensee to assure that information provided to the NRC is "complete and accurate in all material respects."

As an initial matter, please rest assured that GPC and its employees fully appreciate and support the goal of this regulation and recognize their ongoing obligation of full candor and accuracy in providing material information to the NRC. Moreover, GPC concurs with your statement in the NOV transmittal letter that, in the nuclear power industry, when errors are made, they will be promptly corrected, lessons will be learned, and corrections to procedures and training developed to improve future performance. The employees of GPC associated with its nuclear plant operations have learned from this experience and have spent the last four years since the event seeking to improve performance of its plants. We will continue to learn from our mistakes, or the mistakes of other licensees, and will implement our lessons learned in a safe, professional, and responsible manner.

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GPC is aware that these violations are of significant regulatory concern to the NRC. GPC is appreciative of NRC's recognition that the inaccuracies which are the subject of the violations did not have an effect on the safety of plant operation. Safety is paramount at GPC, as is regulatory compliance. Intent to comply with NRC rules, regulations or orders is not at issue here; GPC always intends to obey the law. What is at issue is whether mistakes were made, human mistakes by well-intentioned employees. As you will see in this reply, GPC admits certain of the alleged violations, but it is abundantly clear that at all times public health and safety was protected. GPC is committed to this overriding principle and nothing in this reply or its attachments should be construed otherwise.

GPC wants to assure that one central message is not lost in the NRC's detailed review of the enclosed responses. GPC recognizes fundamental failures in its performance in 1990. It failed to maintain and use a single source document for diesel generator ("DG") starts and runs containing correct, consolidated, retrievable data and defined terminology. Inaccurate information resulting from personnel error was included in the April 9 presentation to Region II. Three starts of the 1B DG were treated as "successful" and included in data provided to the NRC. While the problems experienced in these starts would not have prevented the engines from operating in an actual emergency, their inclusion was not supportive of GPC's intended message that the DG starts were reliable. GPC as a licensee also failed to identify the error in the April 9 presentation, as documented in its April 9 letter to the NRC, until August 1990. Concern had been expressed within the organization about the erroneous information on multiple occasions during this period of time, and two opportunities (April 19 and June 29) to identify the error were missed. GPC can do better, and it will.

On March 20, 1990, during a refueling outage at VEGP Unit 1, GPC lost off-site power and, when Unit 1's A DG failed, GPC declared a site area emergency ("SAE"). (The other Unit 1 DG was unavailable due to scheduled maintenance during the outage.) GPC immediately recognized the imperative need to identify the causes of the event prior to returning Unit 1 to operation, to coordinate recovery activities with the NRC, to obtain NRC concurrence in conducting major recovery actions, and to provide the NRC with all relevant and material information. This was done, in many ways, over many days and with acknowledged success. The record clearly reflects GPC efforts to provide material, relevant information concerning this event, including problems encountered in recovery and investigating the reasons for the 1A DG's failure. During the course of the events, the NRC met with GPC representatives, interviewed GPC personnel, directly observed recovery activities, requested and received specific documents and records, and discussed ongoing recovery activity with many workers. By April 3, 1990, with NRC team members providing objective oversight of GPC's technical review, high jacket water temperature sensors on the 1A DG were identified as the probable component which failed

to perform their intended function.[1]

GPC's open, candid and professional approach did not go unnoticed. By letter dated July 20, 1990, the NRC Region II Administrator said:

> Plant VEGP was fully responsive with regard to quarantined equipment, preservation of records or damaged equipment that may have been related to the event, availability of individuals for questioning, and conduct of separate investigation. Letter of Mr. Stewart D. Ebneter to Mr. W. G. Hairston, III, entitled "Completion of Confirmation of Action Letter Commitments".

Unfortunately, being fully responsive did not result in being painstakingly complete and precisely accurate in all cases. Although each of the incidents of alleged incompleteness or inaccuracy arguably are not "material", the collective performance of site and corporate personnel was below the standards which GPC expects its employees to observe.

However, we do not agree that our faulty performance was as pervasive or as significant as the NOV alleges. This will be carefully demonstrated in the enclosed responses as we provide you with our perspective of these events and identify our differences to you. These differences reflect reasonable, contrary opinions of the responsibilities assigned to the involved individuals, and whether those responsibilities were fulfilled. In some cases GPC differs with the NOV's analysis, affirming our earlier opinion that certain mistakes made -- or not prevented -- were due at least in part to poor record keeping practices. In so doing, GPC has a broader view of the "root cause," and explains conditions, acts, failures to act, and surrounding circumstances which bear on the events and the way they interacted to produce the results at issue here.

GPC continues to believe that the absence of a single source document for DG starts and runs, containing timely and correct data, using commonly defined terminology, and reviewed by qualified personnel, was pivotal in the underlying difficulty in providing accurate diesel start data. The use of such a document would have permitted reverification and review of base data over time and eliminated the need for repeated attempts at data compilation and interpretation.

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[1]The NRC's Incident Investigation Team (IIT) leader observed:

> "So as far as all these sensors that are currently in quarantine, the ones that are high jacket water temperature are the ones that are of the most interest to this event." (IIT Document 257, p. 58 and "Tape 30," April 3, 1990.)

Its absence led to repetitive and compounding GPC reviews and NRC concerns. Simply put, different people used the same or different documents at different times to develop "start counts" with different terminology, covering different durations thereby producing a cavalcade of well-intentioned, but nonetheless ineffective communications. Record keeping should be recognized as a factor in these events, because the absence of an accurate single source document could lead to more problems in the future.

Importantly, GPC's attached responses also provide the NRC with additional, new information either not developed or not considered in prior NRC reviews. GPC requests that this new information be considered carefully, not only because of its significance but also, in some instances, its compelling nature. Three particular areas stand out: (1) the efforts of the Unit Superintendent in the development of the transparency used at the April 9, 1990 presentation at the NRC's Region II offices which is described in the response to Violation A; (2) information given to the NRC concerning "dew point measurements" of diesel control air between April 6 and April 12, 1990, which is described in the response to Violation B; and (3) the efforts of Technical Support personnel on April 19, 1990 to compile diesel start data for use by those site managers tasked with assuring the LER's accuracy, as described in response to Violation C. This additional information will also be useful in the NRC's analysis of the responses to Violations D and E.

The NRC's bases for Violations D and E are predicated, in large part, upon a limited number of surreptitiously recorded conversations in June and August, 1990. By their terms, these tape recordings do not reflect all of the facts and circumstances surrounding these events. Moreover, the physical nature of hiding a tape recorder oftentimes resulted in an expressed concern being captured on tape, and not the statements which address or resolve the concern. More extensively developed transcripts, therefore, are enclosed for your review and we urge that they be read fully.

Only one GPC employee knew of the tape recording. Despite opportunities to assure an accurate and complete information flow within GPC and, in turn, to the NRC, he did not do so. He clearly was not open and cooperative with his co-workers about resolving his own concerns. As the transcripts reveal, sometimes he was non-responsive to direct questions, or vague and indirect when he did respond. In June of 1990 he secretly taped GPC employees as they searched for complete and accurate data and analysis to give to the NRC, while simultaneously withholding relevant and material information he possessed. If, instead of withholding his information, he had fully shared it with his fellow employees, the result might have been an earlier resolution of these problems.

A few other comments are noteworthy to assure that GPC's responses are not misinterpreted or taken out of context. Four years have passed since these events. The NRC

has conducted a substantial and time-consuming review and has alleged that violations of NRC requirements occurred. It is important to recognize, however, that several of these violations resulted from GPC's attempts to provide information above and beyond the minimum. For example, GPC identified certain errors and informed the NRC of them, yet GPC has been faulted for the accuracy of its explanations of why those errors occurred. GPC identified conditions such as poor record keeping which "set up" personnel performance failures, yet GPC is faulted for not assessing personnel performance. GPC is faulted also because it failed to uncover information which was available only to the NRC as a result of allegations and tape recordings. What is at work here is a fundamental difference in perspective: during the course of these events, GPC concentrated its efforts on identifying and fixing problems with plant operations in order to satisfy itself and the NRC that the VEGP could be operated safely after the SAE. This was done and history has confirmed the wisdom of the restart decision and the continued improved performance of the plant. Now, however, the focus is on the performance of individuals.[2] We will always hold our employees accountable for their actions. But finding fault with good faith efforts by a licensee's employees to identify underlying causes, report them and fix them, has the potential to affect adversely open and effective communications between a licensee and the NRC. Some licensees may perceive that self-analysis that fails to find all "causes" brings with it a greater penalty than no self-analysis at all. Also, the failure to recognize that events have multiple primary causes may mislead future analysis.

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[2]One member of GPC's Event Review Team was prophetic. Long after the Team had issued its report, on June 29, 1990 he saw the future, and said so, little realizing the accuracy of his words:

> Team Member: I recall sitting in the war room the night of the event recommending that we keep a detailed log of everything we do, then we can reconstruct it. And it worked for 24 hours and they decided that - somebody decided its too cumbersome, too much work. And I do see many of these events, when they get big and take more than 24 hours, you don't keep a record, you are doomed for disaster. Because "who shot John" becomes more of an issue than what really happened. You just continually spin your wheels on what you did and who said what and what was the real test that was performed; what were the perturbations put on the system and under what conditions was it done, and everybody forgets. People get tired and they don't take notes. [Tape 187, GPC transcript, page 31]

Regardless of the outcome of the NRC's review, GPC will continue its policy of providing more than the minimum information required and of continuing its policy of learning from its mistakes. It will not permit this experience to chill the mutual trust and effective communications with the NRC which GPC has encouraged and enjoyed over the last several years.

GPC has taken extensive action to reinforce its policy of open, accurate and candid communications with the NRC. First, GPC officers responsible for VEGP operations up to and including the President and Chief Executive Officer, have been personally involved in the review of the NOV and GPC's response. A major lesson learned from this review is that internal openness, accuracy, and candor in communications is a prerequisite for accurate and complete statements to the NRC. This "lesson learned" reinforces and validates the efforts in the Summer of 1990, to strengthen internal communications between the corporate office and the VEGP site by, among other things, holding manager team-building meetings. The NRC's frank observations to GPC officers in May of 1990, concerning our operations contributed to the recognition at that time of this weakness.

Second, after the issuance of the NOV GPC's Executive Vice President-Nuclear Operations, sent a letter to nuclear operations employees which stressed the importance of effective communications and the effective resolution of concerns. A copy is attached. In addition to the required posting of the NOV, copies of 10 CFR § 50.9 were posted, and employees urged to read the documents.

Third, the Senior Vice President-Nuclear Operations, held meetings at both GPC plants and solicited comments and observations from large groups of plant employees. A copy of the outline for his prepared remarks is attached. These meetings were effective in providing a forum for open and self-evaluating communications, and were observed by NRC Resident Inspectors. By example, the meetings reinforced the "in full view" atmosphere which GPC strives to achieve in its relations with the NRC.

The Senior Vice President - GPC in addition to counseling with the VEGP General Manager, as discussed in the response to the Demand for Information regarding the VEGP General Manager, has also counseled the Unit Superintendent. This counseling focused upon his performance failures which are the subject of the NOV. This review also focused upon ways in which the Unit Superintendent could improve his attention to detail to ensure that his work is thorough and precise and that he communicates clearly with others.

Finally, notice of availability of copies of this reply will be posted and circulated for reading by VEGP employees.

One final matter deserves comment. Because no enforcement conference was held prior to issuance of the NOV, this response is GPC's first real opportunity to give a complete explanation, from its perspective, of these events. It would be helpful for the parties to meet and confer, in person, to discuss the NOV and this reply. Mr. H. Allen Franklin, President and Chief Executive Officer of GPC, who has been involved in the preparation and review process of this reply, is available for such a meeting. This suggestion is not made lightly. GPC believes that the issues raised in the NOV and this reply can best be explained verbally so that neither the tone nor the content of this reply is misunderstood. GPC urges the NRC to hold such a meeting at a time and place mutually convenient to the parties.

This reply has been developed after substantial inquiry under my supervision and other GPC officers. The reply was reviewed by certain individuals familiar with these events and by the VEGP Plant Review Board for accuracy and completeness. While I do not have personal knowledge of all the facts as stated, I and others have thoroughly reviewed and evaluated the information. Based on all these efforts, I have a high degree of confidence in the reply's accuracy. The information provided in this reply is true and correct to the best of my knowledge and belief. We are available to provide any clarification, expansion or verification which you should require. Mr. C. Kenneth McCoy states that he is the Vice President-Nuclear (Vogtle Project) of GPC and is authorized to execute this letter on behalf of GPC.

Yours very truly,

C. Kenneth McCoy

C. Kenneth McCoy

SWORN TO and subscribed before me this 31st day of July, 1994.

NOTARY PUBLIC

My Commission Expires:
Notary Public, Fulton County, Georgia
My Commission Expires January 29, 1996

[NOTARIAL SEAL]

xc: Georgia Power Company
Mr. J. Beasley, Jr.
Mr. M. Sheibani
NORMS

U.S. Nuclear Regulatory Commission
Mr. S. D. Ebneter, Regional Administrator
Mr. D.S. Hood, Licensing Project Manager, NRR
Mr. B.R. Bonser, Senior Resident Inspector, Vogtle

Enclosures:
1. May 11, 1994 letter from W. G. Hairston, III to employees (example)
2. Remarks of Jack D. Woodard, May, 1994
3. Executive Summary - Reply to Notice of Violation; EA93-304
4. Responses to Violations A through E
5. Answer to Notice of Violation

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the southern electric system

W. G. Hairston, III
Executive Vice President
Nuclear Operations

May 11, 1994

TO ALL GEORGIA POWER EMPLOYEES

By now each of you have been made aware of the recent Notice of Violation and proposed imposition of a $200,000 civil penalty against Georgia Power Company. The Company is still evaluating this document, both its factual conclusions and the legal options, and will prepare an appropriate response. The purpose of this letter, though, is to assure all of our employees that Georgia Power Company remains firmly committed to a full, open, complete and accurate communications policy with the Nuclear Regulatory Commission, any of the Company's regulatory authorities, and with each other. Regardless of the outcome of the Notice of Violation, all of us should consider it our personal responsibility that when called upon to communicate with the Nuclear Regulatory Commission or its staff, whether orally or in writing, we will do our best to ensure that the information provided is complete and accurate in all material respects. This is our obligation by law, this is our obligation by the terms of our licenses, but more importantly, it is the right thing to do.

We should all remember, and take seriously, that the policy of Georgia Power Company is to conduct its business affairs in an honest, ethical manner and to comply with all laws and regulations affecting the Company. Important to our success as a company is our success at compliance with our legal obligations.

If you have a concern which you wish to raise, then you are encouraged to do so. Georgia Power Company's policy is to encourage its employees, and employees of its contractors, to communicate their concerns to their supervisors, which they are free to do at any time. If an employee concern cannot be resolved through this traditional channel, or if the employee wishes to pursue the matters through the concerns program, then use of that program is encouraged. In short, the Company wants you to feel free to raise any concern which you may have and has provided

All Georgia Power Employees
May 11, 1994

multiple ways for you to do so. You will be treated with respect, you will be treated with courtesy, and a fair and reasonable response will be provided promptly and completely. Of course, you may always go directly to the Nuclear Regulatory Commission if you wish and the way to do this, as well as the relevant phone numbers, is posted on numerous bulletin boards throughout the work areas. Rest assured that you may raise your concerns without any fear of penalty or retaliation.

Let's all work together as a team, and dedicate ourselves to safe and efficient nuclear plant operations. We all have a community of interest in the success of our company, we all have a community of interest in full, open, complete and accurate communication with ourselves and with our regulatory authorities. Let's pursue these goals to the best of our individual abilities.

W. G. Hairston III

W.G. Hairston, III

VOGTLE

5/11/94 4:15 p.m.

I. DISCUSSION OF POLICY OF OPEN COMMUNICATION AND THE LETTER TO ALL EMPLOYEES

By now each of you have been made aware of the recent Notice of Violation and proposed imposition of a $200,000 civil penalty against Georgia Power Company. The Company is still evaluating this document, both its factual conclusions and the legal options, and it will prepare an appropriate response. The purpose of this meeting, though, is to ensure you all that Georgia Power Company remains firmly committed to a full, open, complete and accurate communication policy with the Nuclear Regulatory Commission, any of the Company's regulatory authorities, and with each other. Regardless of the outcome of the Notice of Violation, all of us should consider it our personal responsibility that when called upon to communicate with the Nuclear Regulatory Commission or its staff, whether orally or in writing, we will do our best to ensure that the information provided is complete and accurate in all material respects. This is our obligation by law, this our obligation by the terms of our licenses, but more importantly, it is the right thing to do. I encourage you to read the Notice of Violation and read 10 CFR 50.9 which are posted on the plant bulletin board.

We should all remember and take seriously, that the policy of Georgia Power Company is to conduct its business affairs in an honest, ethical manner and to comply with all laws and regulations affecting the Company. Important to our success as a company is our success at compliance with our legal obligations.

If you have a concern which you wish to raise, then you are encouraged to do so. Georgia Power Company's policy is to encourage its employees, and employees of its contractors, to communicate their concerns to their supervisors, which they are free to do at any time. Rest assured that you may raise your concerns without any fear of penalty or retaliation. If an employee concern cannot be resolved through this traditional channel, or if the employee wishes to pursue the matter through the concerns program, then use of that program is encouraged. In short, the Company wants you to feel free to raise any concern which you may have and has provided multiple ways for you to do so. You will be treated with respect, you will be treated with courtesy, and a fair and reasonable response will be provided promptly and completely. Of course, you may always go directly to the Nuclear Regulatory Commission if you wish, and the way to do this, as well as the relevant phone numbers, is posted on numerous bulletin boards.

II. SUMMARY OF EVENTS

In March, 1990 Vogtle Unit 1 was in a normal refueling outage with one emergency diesel generator and one offsite supply transformer tagged out of service for routine maintenance. While in this condition, a truck backed into a transmission line support for the other supply transformer for offsite power to the unit. When the remaining emergency diesel generator attempted to start, it tripped due to a false trip signal resulting in a loss of power to plant safety systems. The diesel generator was subsequently started manually to restore power until offsite power was restored.

In the investigation of the causes of this event, the issue of the reliability of the diesel generators was one of the issues which needed to be resolved prior to returning the unit to

operation. Our employees, often under the observation of NRC inspectors, conducted extensive investigations and testing of these diesels before the unit was restarted.

Subsequent to these investigations, a meeting was held with the NRC to discuss the event and all the corrective actions taken to prevent recurrence and ensure the unit was ready to return to service.

During this meeting, information was provided regarding the investigation and testing of the diesel generators which included a summary of the number of successful test starts done on each of the diesels subsequent to the investigation to demonstrate reliability. This information was gathered by plant employees and was later found by one of our employees to have been in error. This error was reported verbally to the NRC. It was several months before all the confusion and errors were resolved.

While we continue to believe that all employees honestly and diligently attempted to provide accurate and complete information to the NRC, and the Notice of Violation did not attribute the error to willful conduct, clearly there are some lessons we should learn from this experience. The purpose of this discussion is not to debate the Notice of Violation--that is still under evaluation.

III. LESSONS LEARNED

In light of this event and the NRC enforcement action, I would like to reiterate two important policies that are key to our operation:

1. We must always provide complete, accurate information regarding our operation to the NRC. This open and proactive sharing of all relevant and significant information

is essential--even if it goes beyond the scope of an information request. It is important to be precise, accurate and complete in information provided and to identify the bases and qualifications of data provided.

2. All employees have an obligation to raise any concerns they have to their supervisors, and to follow through to ensure the concerns are addressed. Supervisors and managers must be sensitive to concerns raised, and must ensure the concern is resolved and appropriate feedback is provided to the person who raised the concern. That includes any concerns about the accuracy of information. Even though we have particular employees and managers primarily responsible with developing and verifying letters, LERs and similar submittals to the NRC, each of us is responsible to call attention to any errors or inaccuracies in them. We also should suggest additional information which would assure that a complete and balanced message is being sent. Supervisors and managers, as well as co-workers, have to be sensitive to concerns raised; they must ensure that the concern is understood and resolved; and they should provide appropriate feedback to the person who raised the concern. It is sometimes not enough to resolve an issue in your mind--you need to be sure that the issue has been resolved in the other person's mind too. Sometimes you know the resolution as a matter of common sense or past experience, but you need to share that common sense or experience with your co-workers.

IV. OUR OWN SELF-INTEREST

Following our policies will obviously provide assurance that we fulfill our legal obligations under our license. Following the policies will also serve our long-term best interests on a broader scale as well. We need to be aware of those self-interests as we feel the various emotions that result from this case. Our natural, human reaction to a major proposed violation, as this one is, resulting from information which was provided to the NRC, may be draw back, to think that if less or the bare minimum of information has

been provided, or if no concern has been raised, no problem would exist today. In other words, "you can't get into trouble if you don't say nothin'."

That approach is totally at odds with our two policies. The best hopes for our industry, and the continued success of this plant, are vitally dependent on the continued trust of the public in our actions. If we do not provide accurate and complete information to the NRC, we will lose that trust. If we fail to resolve concerns once raised, we will not provide complete and accurate information to the NRC. One of the most effective means of building and keeping the trust of the public in us may well be in our communications with the NRC.

Georgia Power

Executive Summary
Reply to Notice of Violation; EA93-304

The purpose of this summary is to provide a concise articulation of the positions GPC has taken in its response to the Notice of Violation and Proposed Imposition of Civil Penalties dated May 9, 1994. Because it is a summary it should not be used as a substitute for a thorough reading of the filed response. GPC admits that it failed to recognize that errors had occurred in providing the initial diesel generator start counts to the NRC and failed to correct that information in a timely manner. This should not have occurred, but it did, and GPC is accountable for its actions.

Not all of its actions, however, deserve regulatory violations described in the NOV. In some instances, GPC, either because of its view of the evidence or by offering new evidence, denies the allegations. Where it does, it provides a full explanation for its position.

Violation A:

The violation alleges that GPC made inaccurate statements in a letter dated April 9, 1990 which was then sent to the NRC. The inaccuracies were that the 1A and 1B DGs had been started 18 and 19 times respectively, without problems or failures.

GPC admits this violation. The error in the April 9 letter did not support GPC's intended message -- a resolution of concerns about DG reliability. The cause was the performance error of the Unit Superintendent and the misunderstanding between the VEGP General Manager and the Unit Superintendent of the beginning point of the number of starts. In addition, better record keeping practices might have prevented the violation. GPC does not agree that the VEGP General Manager gave inadequate instructions to the Unit Superintendent or inadequately assessed his work product.

Violation B:

Here the allegation is that GPC's April 9, 1990 letter to the NRC was incomplete because when it discussed air quality of the DG starting air system, GPC attributed "initial reports" of high dew points to faulty instrumentation. The NOV says that high dew points also occurred due to other causes, namely GPC's failure to use air dryers and repressurization of the air start system.

GPC denies this violation on the very reasonable ground that "initial reports" referred to the discussions about DG air start quality in late March and early April, 1990, not to a review of all historic dew point data. GPC provides new, documented information that it kept the NRC informed of dew point information, including actual high dew points on the 1A diesel control air. This violation seems to be a relatively straightforward misunderstanding that GPC is glad

to have the opportunity to correct.

Violation C:

This violation arises out of a second failure of GPC to get an accurate count of DG starts. The NRC implicitly compares GPC documents: the April 19 LER (LER 90-006) and the June 29 cover letter to the revised LER. In the first document, GPC states that after the control systems of both DG's were subjected to a "comprehensive test program" they were started "at least 18 times each . . ." The second document, ostensibly referring to the same "comprehensive test program" says that there were no more than 10 and 12 consecutive successful starts respectively on both DGs. Since the numbers are obviously different, yet the starting point of the count appears to be the same, the NOV concludes that something must be inaccurate.

GPC believes that the statements in both documents are accurate (there had been at least 18 consecutive starts without failures or problems on April 19, as the LER said) but must acknowledge that the LER's accuracy was fortuitous. It is admitted that no common definition existed for "comprehensive test program" among the various managers and because of this ambiguity, the NRC reasonably could conclude that LER 90-006 was inaccurate.

Simply stated, the reason for this ambiguity is inadequate attention to detail on the part of the managers who were aware of the potential ambiguity. Somewhere in the LER drafting process the term "comprehensive test program" should have been defined and commonly understood.

GPC contends, however, that little, if any, materiality flows from this inaccuracy and that comparing the two sets of numbers with different definitions of "comprehensive test program of the control systems" merely creates a distinction without a difference. Under either scenario, the DG's were reliable and the LER goes on to identify correctly that the DG sensors used to monitor high jacket water temperature were the most probable cause of the DG failure. Further, GPC informed the NRC of the LER's ambiguity and corrected it on its own. Accordingly, GPC asks that this be treated as a non-cited violation.

Violation D:

The underlying allegation is that GPC's June 29 correspondence (a cover letter and a revised LER) is inaccurate and incomplete. There are three examples given in the NOV that establish the basis for this violation. First, the NOV alleges that the cover letter is incomplete since it promises to clarify the April 9 letter but doesn't do so. GPC denies this. The correspondence clarifies an ambiguity over the meaning of a successful start, (or one "without problems or failures") by using commonly understood terms that appear in the NRC's Reg Guide

1.108. The time period applicable to the start count is also made clear by referencing a specific time period (in the revised LER) and the first successful test in accordance with VEGP Procedure 14980 (in the cover letter). The cover letter does not, however, identify that the April 9 letter was inaccurate and, hence, a violation is admitted for incompleteness.

The second example says that the cover letter is inaccurate because diesel record keeping practices did not cause the different diesel start numbers reported in the April 19, 1990 LER and the June 29 letter. GPC disagrees. GPC continues to feel that pertinent diesel start records were neither timely processed nor evaluated and that, if they had been, this event would probably not have occurred. GPC concedes, as it must, that personnel error contributed to the ambiguity of the LER and thus admits that the third example correctly states a violation.

The reason these violations occurred are that certain on-site managers did not resolve a concern raised by an employee about the accuracy of the June 29 cover letter. The SAER audit, which did not attempt to recreate the first start count attempt on April 9, is conceded to be overly narrow in scope. The employee who raised the concern also contributed to this violation, since at a minimum, he should have shared with his fellow employees his detailed, written evaluation of the pertinent events.

Violation E:

Here the NRC alleges that the following statement in GPC's August 30, 1990 letter was inaccurate: "The confusion in the April 9th letter and the original LER appear to be the result of two factors. First, there was confusion in the distinction between a successful start and a valid test . . . . Second, an error was made by the individual who performed the count of DG starts for the NRC April 9th letter."

GPC denies this violation. The phrase "confusion in" the April 9 letter and the LER was meant to refer to the confusion created by those documents, and not to a "root cause" of the miscount in the April 9 letter. GPC wishes that the letter had said, "The confusion about the April 9th letter and the original LER . . . ." If so, then it would have been clearer that the confusion evolved over time with people, specifically NRC inspectors and GPC personnel, about terminology used in the two documents. Nonetheless, the NRC understood the intended message, as confirmed by GPC's call to the Region II representative.

Moreover, GPC contends that the inaccuracies of the April 9 letter were not due to personnel errors of the VEGP General Manager in issuing inadequate instructions to the Unit Superintendent or assessing his performance. GPC continues to believe that the personnel error of the Unit Superintendent, although possibly avoidable by availability of a single source, timely and accurate record of diesel generator starts, caused the inaccuracies in this letter.

Georgia Power

REPLY TO NOTICE OF VIOLATION
EA 93-304

NRC Violation A:

"Contrary to the above, information provided to the NRC Region II Office by Georgia Power Company ("GPC") in an April 9, 1990 letter and in an April 9, 1990 oral presentation to the NRC was inaccurate in a material respect. Specifically, the letter states that: "Since March 20, the 1A DG has been started 18 times, and the 1B DG has been stared 19 times. No failures or problems have occurred during any of these starts."

These statements are inaccurate in that they represent that 19 consecutive successful starts without problems or failures had occurred on the 1B Diesel Generator (DG) for the Vogtle facility as of April 9, 1990, when, in fact, of the 19 starts referred to in the letter associated with the 1B DG at the Vogtle facility, three of those starts had problems. Specifically, Start 132 tripped on high temperature lube oil, Start 134 tripped on low pressure jacket water and Start 136 had a high temperature jacket water trip alarm. As of April 9, 1990, the 1B DG had only 12 consecutive successful starts without problems or failures rather than the 19 represented by GPC. The same inaccuracy was presented to the NRC at its Region II Office during an oral presentation by GPC on April 9, 1990.

The inaccuracy was material. In considering a restart decision, the NRC was especially interested in the reliability of the DGs and specifically asked that GPC address the matter in its presentation on restart. The NRC relied, in part, upon this information presented by GPC on April 9, 1990 in the oral presentation and in the GPC letter in reaching the NRC decision to allow Vogtle Unit 1 to return to power operation."

GPC Response to Violation A:

Admission or Denial of Violation A: The Violation is admitted.

Reasons for the Violation:

On April 9, 1990, GPC made an oral presentation to the NRC in the Region II office (RII). The presentation was in response to a verbal request by the NRC and the March 23 NRC Confirmation of Action letter and was in support of GPC's request for VEGP, Unit 1 restart approval. Following the April 9 oral presentation GPC submitted a letter to the NRC which contained the same diesel generator ("DG") start information that was presented during the oral presentation.[1/]

[1/] References to exhibits contained throughout this Response shall follow the exhibit numbering system used in the December 17, 1993, Office of Investigation's Report No. 2-90-

Prior to the April 9, 1990 presentation, the VEGP General Manager was given the responsibility of preparing information for the presentation regarding issues that were raised as a result of the March 20, Site Area Emergency ("SAE"), including the special testing that was conducted on the DGs. The materials used during the presentation were assembled on transparencies immediately prior to April 9 by the VEGP General Manager with the help of subordinates. In reference to the DGs, it is clear that the VEGP General Manager desired to present an overview of the special testing, but did not intend to present a complete accounting of all the DG starts since the March 20 event. Rather he intended to present a number of consecutive successful starts as support for the position that the DGs would perform their intended function. (Vogtle Coordinating Group Report, p. 2). In other words, a number of successful starts of the DGs would demonstrate that the single operability test (surveillance) was not a fluke.

The three "problem" starts (later designated as starts 132, 134 and 136) which are the focus of this Violation A, occurred prior to the 1B DG being declared operable.[2/] Two of the problems (132 and 134) involved trip features which would be by-passed in an actual emergency. The other start (136) involved an alarm for an emergency feature that did not result in a trip of the DG.

GPC attributes the inaccuracy to the performance of the Unit Superintendent, who was responsible for obtaining the start count information. The inclusion of the "problems" in the start count of the 1B DG appears to have resulted from the Unit Superintendent's beginning his count earlier in time than understood by the VEGP General Manager. Additionally, the availability of an updated single source document of recorded DG start information, which would have been evaluated by qualified personnel (e.g., Engineering Support) would have afforded the Unit Superintendent with clearer information. At the time the Unit Superintendent performed his count, record keeping practices (e.g., data sheet routing) did not permit for a timely updated document. Had there been such a document which collated all start activities with supporting data, then this violation might never have occurred.[3/]

The VEGP General Manager requested the Unit Superintendent to compile the number

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020R, unless otherwise indicated.

[2/] The specific start number, such as start 132, 134 and 136, would not be assigned until the DG log was in the process of updating on April 25, 1990 (the log's list of starts was updated on May 2, 1990).

[3/] Such a single source document would have been an updated version of Engineering Support DG start log maintained pursuant to VEGP Procedure 55038-C. A possible difference in result would be the listing of specific start activities with the specific start numbers (e.g. E-Run Bubble Test -- 137; Multiple [simulated] Starts -- 138 - 141; UV Run Test -- 142, etc.). The "14" Multiple Starts placed on the transparency would then have been recognized as an aggregation of out-of-sequence starts. See, also, NUREG-1410, Appendix J, p. J-15.

of successful starts of the DG for inclusion on a draft transparency (slide) to be used during the presentation. The Unit Superintendent confirmed the number which was placed on the transparency. (Exhibit 9 p. 7). According to the Unit Superintendent, the VEGP General Manager's instructions were to review the log books and determine how many starts had occurred without significant problems. (Id. p. 3). The Unit Superintendent understood that the VEGP General Manager wanted a count of starts without "significant problems, i.e., where the diesel had started properly and reached the required voltage and frequency." The Unit Superintendent interpreted "significant problems" to be anything which would have prevented the diesel from operating in an emergency. The VEGP General Manager had the same understanding. However, as discussed in this Response, he would not have included the three problem starts in his count. (GPC response to NRC Staff's First Set of Interrogatories, Response 7a and b, August 9, 1993). While the VEGP General Manager may not have articulated a definitive criteria for "successful starts" when he directed the Unit Superintendent to gather successful DG starts, both viewed the task as calling for the same information. The task assigned to the Unit Superintendent was narrow in scope and straight forward, and the Unit Superintendent was competent to perform the task based on his experience and knowledge.[4]

A review of the context of the Unit Superintendent's task establishes that he was provided sufficient guidance to perform the task adequately and took diligent steps to perform it. He reviewed control logs and prepared a handwritten list of DG starts. (Exhibit 10, p. 26). The draft transparency was typed prior in time to the start lists prepared by the Unit Superintendent (Exhibit 113, p. 28-46), and GPC has concluded that the Unit Superintendent received a draft of the DG "Special Testing" transparency when he assembled the requested information. He assisted with the formatting of the transparency and supplied the start count numbers by modifying the transparency. (Exhibit 10, p. 26). He knew the transparency and his data were for the presentation to the NRC relative to the Confirmation of Action Letter. (Exhibit 9, p. 5). He did not note any starts that had significant problems. (Exhibit 9, p. 15). He understood that the presentation was going to address all of the problems of the DGs that GPC had identified in troubleshooting or corrective actions and schedules for those activities.[5] (Exhibit 10, p. 18). From recreating his count, the Unit Superintendent concluded that several post-maintenance starts were not included in his 1B diesel count. (Exhibit 10, p. 19 - 20). Contrary to the Office of Investigations report (p. 23, evidentiary fact 34), he did not claim that he made his own decision on the starting point of the count. He simply did not recall the VEGP General Manager's specific instructions. (Exhibit 10, p. 11). Prior to his assignment to prepare the

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[4] The Unit Superintendent was a member of the Event Critique Team and a degreed SRO licensed Unit Superintendent.

[5] The Unit Superintendent also had knowledge concerning DG starts or runs which were problematic. On March 23, 1990, he discussed the high lube oil trip on the 1B DG which occurred on March 22, 1990 (Start 132) in the early afternoon, including the precursor alarms to the trip and the likelihood that the sensor malfunctioned (Exhibit 70, Tape 10, pp. 24-25, GPC Transcript).

transparency by the VEGP General Manager, the Unit Superintendent had reviewed the logs and highlighted DG starts (Tape 19, pp. 23-24, GPC transcript, Tab A, Item 1), and during the performance of his task was observed with extensive DG start documentation by another tasked individual. (Exhibit 51 p. 2).

While the VEGP General Manager also could not recall his specific instructions regarding the point for the Unit Superintendent to start his count, he understood that the Unit Superintendent began counting 19 starts on the 1B after the overhaul period. (Exhibit 12, p. 18). It should be noted that the Unit Superintendent's recall of exclusion of three "post-maintenance starts" on the engine with problems (starts 120, 121 and 122) and the VEGP General Manager's understanding that three failures to start during the "overhaul period" were excluded may be related. The VEGP General Manager's understanding of the beginning of the start count excluded the three starts with problems (starts 132, 134 and 136) based on the time covered by the count. The Unit Superintendent apparently evaluated each of these "post-maintenance" starts as not having a significant problem. (Exhibit 10, p. 19, 20). And, since these three start problems during the overhaul period were viewed by the Unit Superintendent as not affecting emergency functions, they were included by him in his count. (Exhibit 10, p. 16, p. 19).

The NRC assumes the VEGP General Manager did not determine the specific point by date or time when the Unit Superintendent began his count. However, the VEGP General Manager did determine the point when the Unit Superintendent began his count relative to activity. Activity was the subject matter of the transparency, not date and time of specific starts. While GPC cannot recreate the relevant conversation, it appears reasonable to conclude that the Unit Superintendent, in excluding certain "post-maintenance" starts for the 1B DG, was aware that "in overhaul" was listed on the draft transparency, and conveyed to the VEGP General Manager -- either by word or work product -- that "post-maintenance" starts had been excluded. Indeed, by stating that "after the overhaul period. . . that's when [the Unit Superintendent] started counting these 19 starts" (Exhibit 12, p. 18), or "after sensor calibration and logic testing" (Exhibit 36, p. 21), the VEGP General Manager made statements consistent with such an understanding in the relevant time frame.[6]

The Unit Superintendent was aware that the use of the information he was providing the VEGP General Manager was for inclusion on the transparency which would be used in a presentation to the NRC (Exhibit 9, p. 5 -- for the presentation on the confirmation letter, to determine the number of starts we had had with the diesel without significant problems; Exhibit 10, p. 12, -- the start count would "define" the scope of the test program). He knew **his**

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[6] No DG starts were associated with the extensive calibration and logic testing of the DG. "Bubble test starts" and "Multiple Starts" were associated with starts of the DGs. The VEGP General Manager's understanding of the Unit Superintendent's start point on the 1B was reflected in taped conversations on April 19 (of which he was unaware), his testimony to the NRC in August, 1990, and his conversations with co-workers in August, 1990.

numbers would be used on the transparency (Exhibit 9, p. 8; Exhibit 10, p. 26). Given this contextual knowledge, any concern about the meaning of the VEGP General Manager's instructions should have prompted him to request clarification. GPC is unaware of any such concern being voiced. In conclusion, GPC has concluded that the data which the Unit Superintendent provided to the VEGP General Manager was neither exclusively oral (it was documented by the completed transparency), nor, do we believe, presented to the VEGP General Manager in a manner likely to prompt questioning of the Unit Superintendent's performance.

The transparency describing the Special Testing of the DGs did not reference any problems or failures. (Exhibit 7). The Unit Superintendent was not involved in the preparation of the April 9, 1990 letter and after the April 9 presentation, did not review the letter. (Exhibit 10, p. 60, 61). Since he was the only person who was aware that the start count information used in the April 9, 1990 letter contained "problem starts" and he did not review the April 9, 1990 letter, a potential opportunity to correct the inaccuracy was missed.

One of the reasons that the VEGP General Manager tasked the Unit Superintendent to review the logs and count the number of DG starts was due to the absence of a single source Engineering Support DG start log based on data sheets for DGs. The Unit Superintendent obtained his information from a review of the Control Room's Unit Control logs and the Supervisor logs. The VEGP General Manager believed that with the Unit Superintendent's experience in Operations, he would be able to obtain the requested information. The Unit Superintendent had previously reviewed the control room log to obtain DG start information for the Event Critique Team. Additionally, plant personnel, including the VEGP General Manager were aware that the Engineering Support DG start log was not up to date. Even the Supervisor - SAER in his review of the various sources of information available to determine the number of DG starts concluded that there was a need for more extensive updated documentation. At the time it took approximately 24 days for processing sheets to go from the control room to the engineers. (Exhibit 57, p.6). As a result, the Engineering Support DG start log would not be updated on a current basis. There was not available a current source record book that a person could review to obtain the number of DG starts. As a result, since the Engineering Support DG start log was not current, it was logical for the VEGP General Manager to assign the Unit Superintendent who was familiar with the control room logs to obtain the start count information. In hindsight, had there been one current single source record containing updated information about the DGs, no need to review the control room logs would have existed and the inclusion of the problems within the 19 "successful start" count might not have occurred.

Materiality:

The NRC has concluded that the inaccuracy was material in that the NRC relied, in part, upon the information provided by GPC in the April 9 oral presentation and letter in reaching the decision to allow Unit 1 to return to power generation. GPC recognizes the importance of GPC statements concerning DG performance and the NRC's restart decision, but suggests that the inaccuracy (19 versus 12) when read in context, was not significant particularly when considered with the extensive information concurrently provided to NRC experts.

The cause of the 1A DG failure during the SAE was one focus of NRC and GPC concerns. Immediately following the event, personnel conducted several trouble shooting starts on the 1A DG to determine, if possible, the cause of the event. The DG started and ran without difficulties or problems each time. The plant staff's focus was shifted to bringing the 1B DG out of overhaul so that one functioning DG was available for backup power. Testing and trouble shooting on the 1A DG was deferred while engineering personnel concentrated on the 1B DG.

The problem starts which are the focus of the Violation A were known to the NRC experts. During the period March 22 through April 7, interaction between NRC and GPC personnel through meetings, interviews, document production, personal observation, telephone conferences and a review of planned testing clearly established that (1) GPC openly discussed all of the problems it experienced with the Calcon sensors, including those associated with starts 132, 134 and 136 on the 1B DG and (2) numerous NRC personnel, including Region II personnel (Kenneth E. Brockman, Milton D. Hunt and Peter A. Taylor), were aware of the problems associated with the 1B DG.

During the presentation to the NRC on April 9, 1990, the VEGP General Manager was prepared to discuss components associated with the historic problem starts of the DGs. He presented a transparency of quarantined components which directly followed the transparency which set out the Special Diesel Testing. This transparency identified six sensors associated with the 1B DG. With the presentation of this transparency, he was identifying specific sensors which caused problem starts coming out of overhaul on the 1B DG.

Prior to the April 9, 1990 presentation, the NRC was also aware of the special testing that was conducted on the 1B DG. Milton D. Hunt, NRC Region II Inspector, witnessed special testing for the determination of 1B DG operability. (NRC Inspector Report 90-05, dated April 26, 1990). He was satisfied that the 1B DG was operable; every test that was conducted on the 1B DG while he was at the plant site was successful. He was not concerned with the occurrence of any failures on the 1B DG prior to his witnessing of the testing. Even if GPC had shown failures on starts or runs prior to the undervoltage ("UV") test, Mr. Hunt's opinion regarding operability or the return to criticality would not have been affected. Mr. Hunt's opinion regarding restart was based on the testing he witnessed while at the plant site. (Exhibit 21). Peter A. Taylor also believed that any failures during the trouble shooting test period would not have made a difference in the operability or reliability determination. (Exhibit 22). According to Mr. Taylor, during the presentation, had the NRC known of the problems during trouble shooting, they would have required more tests be conducted prior to restart, <u>but no more additional tests than were actually conducted</u> between April 9, 1990 and return to power. (Exhibit 22). Stewart D. Ebneter, Regional Administrator had final responsibility for the decision on allowing restart, and relied on the technical input from his staff, which included Milton D. Hunt. (Exhibit 18). It appears the observation of the testing, as well as the testing procedures themselves, rather than correspondence describing the number of successful starts, were influential in affecting NRC personnel judgment regarding operability and root cause identification.

GPC strives to fulfill its obligations under 10 CFR §50.9 by assuring the completeness and accuracy of all information submitted to the NRC. However, for enforcement purposes the inaccuracy in the start count information should not be considered material in light of all the information the NRC was given regarding the SAE and the special testing of the DGs. The statements of NRC personnel support the position that they relied on the observation of and results of the special testing conducted on the DGs for a determination that the DGs were operable.[7] GPC has not treated the inaccuracy lightly but, due to the interaction between GPC and the NRC during this time period, we respectfully request the NRC to reconsider whether the difference between 19 and 12 successful starts is material.

Corrective Action - Results Achieved :

GPC is committed to open, complete and accurate communication with employees and the NRC. GPC is keenly aware of its legal obligation to ensure that all information provided to the NRC is complete and accurate in all material respects. This commitment and awareness are exhibited in managements interaction with employees and NRC personnel. Since the SAE GPC has taken various actions in an attempt to inform the NRC of relevant information, to ensure that areas where GPC can improve are acted upon, as well as remind employees of GPC's commitment to open communication and the resolution of employee concerns.

On April 19, 1990 the Vice President - Vogtle Project telephoned Ken Brockman of NRC Region II to assure that the IIT and Region II participants at the April 9 presentation understood the basis of the April 9th start count numbers in order to avoid any miscommunication (Exhibit 36, p. 27). This evidences GPC's efforts to correct a potential ambiguity of the April 9 letter when brought to management's attention.

On May 8, 1990 the Vice President - Vogtle Project held a managers meeting to discuss the NRC's negative perceptions of GPC's approach to regulatory obligations. (Exhibit 74, p. 8). The Vice President - Vogtle Project informed the group that the Executive Vice President - GPC, the Senior Vice President - Nuclear operations and he had been requested to attend a meeting in Washington with the NRC. He described in detail how the discussion addressed the NRC's perception of the personnel at Vogtle. The NRC believed that the personnel at Vogtle "have a cowboy cavalier attitude". (Exhibit 74, p. 10). The tape illustrates GPC's commitment to openness. The Vice President - Vogtle Project led a very frank and critical discussion regarding personnel attitudes, performance and communication with the NRC.

In July, 1990, GPC nuclear officers held two meetings in Augusta, Georgia for VEGP managers. The first meeting, on July 11, 1990, at the Pinnacle Club, was a dinner, followed by discussion concerning such issues as teamwork, personnel policies, and open and effective

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[7] Peter A. Taylor stated that while he was not aware of any troubleshooting test failures during the IIT, any failures during such testing would not have made a difference in an operability or reliability determination.

communication between groups within the organization. A follow-up meeting with a less social tone was held on July 24, 1990, at the Holiday Inn. Among other items, GPC officers stated their goals of fostering better communications between the corporate office and the plant site, of greater overall candor in dealing with the issues to assure broad awareness of important safety issues, and of the corporate office's desire to support, not over manage, on-going efforts at the plant. These meetings, including the May 8th plant meeting, evidence GPC's sensitivity to NRC perceptions at that time, and efforts to enhance the information flow and cooperation between functional groups associated with the VEGP. As NRC Resident Inspectors and managers have observed, since this period improvements in communication have been commendable, and a culture of openness pervades external and internal discussions. The possibility of omitted material information or of materially inaccurate information is felt to be significantly less as well.

Weaknesses were identified in the June, 1990 audit of DG record keeping practices conducted by the Safety and Engineering Analysis group. Successive revisions to procedures were thereafter initiated to provide additional assurance that data sheets which record start attempts (officially "Completion Sheet 1") were completed. and to place the completed Completion Sheet in a DG Logbook maintained and located in the control room. This Logbook provided a comprehensive collation of data sheets which was readily available. Today a bound logbook with consecutively numbered Completion Sheets is maintained in the control room. When filled out by operators, a single impression creates two "originals," with the second (yellow) copy directly forwarded to the Engineering Support DG system engineer for completion of the diesel test evaluation section. The original remains in the control room. In contrast to past practice, the operators, rather than the system engineer, assign an identifying start number to each successive start and the "successful start" category has been deleted from the test evaluation section of the Completion Sheet. VEGP Procedure 14980-1 (Diesel Generator Operability Test," Rev. 35, Sections 3.7 and 3.8 and VEGP Procedure 13145-1 "Diesel Generators," Rev. 35, Section 2.2.9).

GPC has made a concerted effort to enhance the accuracy and completeness of all communications to the NRC. GPC executive management and Region II officials, and GPC site management and NRC Resident Inspectors have periodically discussed openness and quality of communications.

On May 11, 1994 the Executive Vice President - GPC forwarded a letter to employees informing them of the issuance of the Notice of Violation and reinforcing the company's policy toward openness in communications with the NRC. The letter also addresses GPC's philosophy in dealing with employee concerns (Tab A, Item 2).

On May 11, 1994 the Senior Vice President - GPC visited both Hatch and Vogtle nuclear plants and talked to large groups of employees regarding the Notice of Violation. He also discussed the company's policy toward open communication with the NRC and stated "we must always provide complete, accurate information regarding our operation to the NRC." The NRC

Resident Inspector, attended these meetings. The Senior Vice President - GPC emphasized the point that it is essential that there be open and proactive sharing of all relevant and significant information, even if it exceeds the scope of an information request (Tab A, Item 3). Managers and supervisors, in turn, shared these observations with their subordinates.

Notice of the NOV with a copy of 10 CFR 50.9 has been posted at both plant sites for all employees to read.

The above actions show GPC's continued commitment toward open and accurate communication with the NRC. Additionally some of the above addressed GPC's policy regarding employee's concerns. While employees are encouraged to raise any and all concerns, it was stressed that it is not always enough to resolve the concern in one's own mind but one needs to be sure that any concern in the minds of others is also resolved. GPC is very focused on the appropriate treatment and resolution of all employee concerns. The discussions with employees was also aimed at preventing the Notice of Violation from having the effect of chilling any internal or external communications.

Corrective Action to be Taken:

GPC's Reply to the Notice of Violation will be made available for employees to read.

If an Order is issued by the NRC regarding the Notice of Violation, it will be posted for all employees to read.

The Senior Vice President - GPC will send a letter to the Vice Presidents of Hatch and Vogtle regarding the adequacy of established record keeping practices during an "off-normal" event. The letter suggests that upon the occurrence of "off-normal" events, managers consider the adequacy of existing documentation practices and whether additional action is prudent to preserve relevant information, including the need for more frequent updating of logs.

NRC Violation B:

"Contrary to the above, information provided to the NRC Region II Office by GPC in an April 9, 1990 letter was incomplete in a material respect. Specifically, the letter states, when discussing the air quality of the DG starting air system at the Vogtle facility, that: "GPC has reviewed air quality of the D/G air system including dewpoint control and has concluded that air quality is satisfactory. Initial reports of higher than expected dewpoints were later attributed to faulty instrumentation."

This statement is incomplete in that it fails to state that actual high dew points had occurred at the Vogtle facility. It also fails to state that the causes of those high dew points included failure to use air dryers for extended periods of time and repressurization of the DG air start system receivers following maintenance.

The incompleteness was material. In considering a restart decision, the NRC was especially interested in the reliability of the DGs and specifically asked that GPC address the matter in its presentation on restart. The NRC relied, in part, upon this information presented by GPC in its letter of April 9, 1990 in reaching the decision to allow Vogtle Unit 1 to return to power operation."

GPC Response to Violation B

Admission or Denial of Violation B: The violation is denied.

Reasons for the Denial:

GPC's April 9, 1990 letter addressed, accurately and completely, the on-going events at Plant Vogtle related to concerns about "dew point" data. The statement about "initial reports" referred to the resolution of a current issue which was first identified and reported to NRC representatives in the April 5-9, 1990 period (i.e., specific reports of higher than expected dewpoints referred to reports of measurements that had been taken during the recovery from the SAE). To suggest that the letter sought to either identify or explain all "higher than expected dew points" is to take GPC's statement out of context. This would give it a meaning which is inconsistent with the actual understanding of both GPC and NRC representatives at the time. Prior to the NRC's decision to allow Vogtle Unit 1 to return to power operation, GPC kept the NRC informed of dew point information, which included providing the NRC with written information on actual high dew points on the 1A diesel control air and oral information on other engines. Documents in the possession of the NRC substantiate the context and meaning of the statement, and an understanding of the statement's meaning by NRC representatives and of information conveyed to the NRC prior to restart. None of these documents are identified in the Notice of Violation, the February 9, 1994 Vogtle Coordinating Group analysis, or the Office of Investigations report 2-90-20 dated December 17, 1993, and so, for ease of reference, will be discussed here.

The Statement's Context and Meaning

The April 9, 1990 letter identified certain short term corrective actions. Beginning on p. 3, the April 9 letter sets out, in summary form, these actions which had been or were being implemented by GPC. The letter concludes "Based on the above discussion, we have completed the appropriate corrective actions necessary to safely operate the unit." The short term corrective actions included 1) operator training, 2) modification of the under voltage start feature, 3) ongoing evaluation of the possibility of design change for the jacket water high temperature trip function, 4) review of air quality, 5) prospective review and identification of long term corrective action, and 6) prospective laboratory evaluation of quarantine components. The bases for GPC's conclusion of satisfactory current air quality of the DG's control system was also provided in summary form: (1) recent unacceptable dew point measurements were attributed to faulty instrumentation; (2) internal inspection of an air receiver on April 6; (3) periodic replacement of control air filters; and (4) daily air receiver blow downs.

There can be little doubt that the letter was discussing the current situation and it is unduly strained to say the statement was intended to describe all past maintenance issues. Said another way, GPC's statement regarding "dewpoint control" conveyed GPC's judgment on April 9, 1990, that air quality in the starting air system relative to moisture or "humidity" was satisfactory at that time. Although higher than expected dewpoints had, in fact, been recorded during the Plant's recovery from the SAE, these post-event measurements were erroneous, and faulty instrumentation was the reason. Representatives of the NRC's Incident Investigation Team (IIT) were informed of these high readings.

GPC Informs the NRC of Erroneous, Post-Event Dew Point Readings

The IIT transcribed many conversations between the NRC and GPC representatives regarding dewpoint control. Air quality, including the possibility of small debris or moisture in the DG air system, was discussed at an IIT meeting on March 28, 1990. (IIT Document 145, p. 95-97. Tab B, Item 1). In response to a question from the IIT, GPC committed to review the last historic dewpoint and, in addition, take new dewpoint readings. Both the IIT and GPC were attempting to identify the cause of the 1A DG spurious trip on March 20, 1990.

Between March 28 and April 3, as a follow up to the IIT request, GPC tested the air quality for moisture and conducted a review of the control air filters. (IIT Document 257, p. 59-60. Tab B, Item 2). GPC stated that, based upon tests done, the quality of air was satisfactory, and air quality was not considered the root cause of the 1A diesel trip on March 20, 1990.

The "initial reports" of higher than expected dewpoints arose on April 6. The reports were made to GPC management and, in turn, to the IIT. (IIT Document 203, p. 4. Tab B. Item 3). The IIT team leader (Id. p. 4, line 16-18) indicated that the IIT may have been informed of the situation prior to the morning of April 6. In any event, the VEGP General Manager explained that on April 5 he had learned that the test of dewpoint on March 29 was

unsatisfactory for the 1A diesel[8] He further stated that the preliminary indications were a bad dewpoint sensor instrument. This was the "initial reports." The "jacket water test" on the engine had been placed on hold, while a bleed and feed on the air storage tanks had been started. The basis for the General Manager's belief that the test instrumentation was suspect included recent "bad" readings on the 1B diesel. "Cooper people" (i.e., representatives of the DG vendor) had been contacted to verify GPC's belief that any immediate problem associated with the controls of the diesel did not call into the question the operability of the engines. (IIT Document 203, pp. 5-7. Tab B, Item 3). A new dewpoint instrument or equivalent was being sought on the morning of April 6. (Id. p. 7)[9].

By April 9, GPC had performed additional post-SAE dewpoint readings. (IIT Document 206, p. 4, lines 7-10. Tab B, Item 4). On the same day, NRC representatives were informed of the dewpoint readings obtained by new instrumentation. One dewpoint reading at 60.9° on the diesel 2A receiver, was attributable to the air dryer being turned off on Friday (4/6). (IIT Document 206, p. 5. Tab B, Item 4). The IIT team leader apparently understood this fact. (Exhibit 28, p. 128). The IIT team leader indicated to plant personnel that Unit 2 diesel-related air quality history was not of substantial interest; "we just need the information that shows us to what extent air poor quality might have had an impact on the operation of unit 1A diesel." (IIT Document 206, p. 6, lines 23-25. Tab B, Item 4). He also observed: "you also brought up another good point, which is that, you know, the way you got into this thing here recently was you thought you had bad air, but the instrument was bad." (Id. p. 8, lines 15-16). This NRC statement is remarkably similar to GPC's statement which is the basis for Violation B. Both accurately and completely describe recent, not historic, developments associated with dewpoint measurements of the DG control air following the SAE.

A Rule of Reason Should Be Applied to The April 9 Control Air Statement

In promulgating 10 C.F.R. 50.9(b), the NRC has stated that it intended to apply a "rule of reason in assessing completeness of a communication." 52 Fed. Reg. 49366, December 31, 1987. A discussion of higher than expected dewpoints in the distant past attributed to "system air dryers being out of service" and "system repressurization following maintenance" was not

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[8] The associated Maintenance Work Order is dated March 31, 1990. MWO 19001513.

[9] That "initial reports" were associated with comments to the IIT in the April 6 time frame is confirmed by other contemporaneous documentation. On April 5, 1990, a facsimile transmission of the draft April 9 letter was made to Plant Vogtle. At that point, the draft letter described a test of the "jacket water system temperature transient during engine starts" as "in progress." (Tab B, Item 5, Exhibit 28, p. 85). This draft paragraph was completed in the final April 9 letter with inclusion of the test results. (Tab B, Item 6, p. 2, paragraph f). The final April 9 letter also discussed the air quality issue which had been resolved shortly before. These modifications, occurring over a period of a few days, highlight and underscore the efforts of GPC to provide current information on DG issues.

reasonably necessary to completely describe the short term corrective actions associated with high dew point readings after the SAE.

Moreover, changes in preventive maintenance (PM) practices in late 1988 made more distant dewpoint measurements much less informative about air quality than recent data. See, for example, IIT Document 05-221-90, indicating improved PMs.[10]

Additional Information Provided After April 9, 1990 and Prior to Restart

GPC provided pertinent historic data on dewpoint prior to restart. On April 9, based upon a review of preventative maintenance (PM) documentation, the NRC was informed of PM results which showed unacceptable dewpoints. (IIT Document 206, pp. 7-8; Tab B, Item 4). GPC offered the actual numbers from the PM packages, including the 1B-train diesel package from March, 1989 when the dryer was replaced. (IIT Document 206, p. 9, lines 3-14, Tab B,

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[10] NRC Inspection Report No. 50-424/425, 90-19, Supplement 1, dated November 1, 1991, when compared to GPC's statements to the IIT during the 4/6 - 4/11 time frame, demonstrates the completeness of information conveyed to the NRC:

- In 1988 GPC's PM program for the DG were improved; prior to that time dewpoint measurements were not consistently taken; (IIT Document 233, pp. 6-7. Tab B, Item 7).

- The daily blowdown of receivers assured freedom of moisture; (IIT Document 233, p. 7, lines 1-5. Tab B, Item 7).

- GPC's internal inspection of the DG air receiver after the SAE formed a credible basis for concluding the components had not degraded due to moisture; (IIT Document 233, p.7, lines 9-12. Tab B, Item 7).

- Dewpoint measurements were above specifications in instances due to air dryers out of service following the SAE; (IIT Document 206, pp. 4-5. Tab B, Item 4).

- Dewpoint measurements above specifications were due to instrument problems; (IIT Document 206, p. 4. Tab B, Item 4).

- Filters on the control air system which were pulled in early March, 1990 looked new, and did not appear to have been affected by "dirty" air. (IIT Document 206, p. 9. Tab B, Item 4).

Applying a rule of reason, the information in the April 9 letter was a complete explanation of the basis for GPC's closure of dewpoint concerns which arose subsequent to the SAE.

Item 4). The NRC requested a table of historic measurements (IIT Document 206, p. 7, lines 12-19; Tab B, Item 4); the 1A diesel was of greatest interest. The next day the General Manager stated that he would like to obtain information if compressors were out of service for long periods: "that's not information we have." (Tape 40, p. 17-18, April 10, 1990, Tab B, Item 8).

Early on April 10, 1990 dewpoint measurements on the 1A diesel were reportedly faxed to the NRC. (IIT Document 233, p. 6, lines 7-9, Tab B, Item 7; Tape 41, p. 74, Tab B, Item 9; IIT Document 05-202-90 has a date of April 11, Tab B, Item 10). GPC thereafter orally explained that good, consistent data earlier than the transmitted data had not been obtained. GPC's belief remained as it had been on April 9 -- that the current air quality of the diesel was satisfactory, although "during that period of time" in 1988, one of the air dryers was out of service for maintenance. GPC also explained the inspection of the control air filters and the lack of observed rust or corrosion products. GPC further referenced the one air receiver which was visibly inspected (on 4/6).[11] In light of these communications, documented by the IIT, the NRC was provided historic data. The fact that the April 9 letter had not also indicated such data is therefore immaterial.

Thus, GPC believes that its denial of this violation should be accepted by the NRC and this violation should be withdrawn.

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[11] Discussions with the IIT on April 11, 1990, followed a GPC morning meeting. (Exhibit 66 of the OI Report, tape 41). In addition to the consensus reached at the end of that meeting concerning air quality, the General Manager expressly told the participants that he intended to inform the IIT of the fact that the preventative maintenance program in 1988 was "not as good" as the current program. (Exhibit 66, p. 48). This he did. Conversations also indicate that the knowledgeable GPC engineers considered historic dewpoint as only tangentially related to current air quality conditions.

NRC Violation C:

"Contrary to the above, information provided to the NRC by GPC in a Licensee Event Report (LER), dated April 19, 1990, was inaccurate in a material respect. Specifically, the LER states: "Numerous sensor calibrations (including jacket water temperatures), special pneumatic leak testing, and multiple engine starts and runs were performed under various conditions. After the 3-20-90 event, the control systems of both engines have been subjected to a comprehensive test program. Subsequent to this test program, DG1A and DG1B have been started at least 18 times each and no failures or problems have occurred during any of these starts."

These statements are inaccurate in that they represent that at least 18 consecutive successful starts without problems or failures had occurred on the DGs for Vogtle Unit 1 (1A DG and 1B DG) following the completion of the comprehensive test program of the control systems for these DGs, when, in fact, following completion of the comprehensive test program of the control systems, there were no more than 10 and 12 consecutive successful starts without problems or failures of 1A DG and 1B DG respectively.

The inaccuracy was material in that knowledge by the NRC of a lesser number of consecutive successful starts on 1A DG and 1B DG without problems or failures could have had a natural tendency or capability to cause the NRC to inquire further as to the reliability of the DGs."

GPC's Response to Violation C

Admission or Denial of Violation C: Violation C is denied, as stated, but GPC admits to the ambiguity of the LER.

GPC believes that the basis for this violation is a comparison of the April 19 LER and the June 29 cover letter to the revised LER. Both documents ostensibly refer to the end of the "comprehensive test program" yet have different DG start counts. The LER uses "at least 18" and the cover letter says "10 and 12." In fact, there had been at least 18 consecutive successful starts without problems or failures on the 1A and 1B DGs going back in time as of April 19, 1990 (the date of the LER). There had also been at least 18 consecutive successful starts without problems or failures after the "comprehensive test program of the control systems" as defined by the VEGP General Manager. The statements are accurate only because additional successful starts had occurred after April 9; the statements would not have been accurate as of April 9.[12] The additional starts in the intervening time period fortuitously made the statements accurate. GPC acknowledges that the statements were ambiguous and that a common understanding of the "comprehensive test program of the control systems" phrase was not assured prior to submittal of the LER to the NRC.

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[12] GPC officials in Birmingham thought that the phrase "at least 18 consecutive starts" in the LER found its basis in the April 9 letter.

Reasons for the Ambiguity in the LER.

The conversations reviewed by GPC in preparing this response demonstrate the efforts of GPC representatives to assure accurate and clear communications with the NRC, including LERs, consistent with the GPC's policies and NRC regulations. Several revisions of the draft LER were made to clarify information or statements. The statement which is the subject of violation C is accurate, based on the definition of the "comprehensive test program of the control systems" as understood by the VEGP General Manager and as conveyed to the General Manager - Support, the Technical Support Manager and the acting VEGP Assistant General Manager - Plant Support. This definition specified the beginning point of the start count on the 1B DG as understood by the VEGP General Manager. (GPC Tape 58, pp. 21-26, Tab C, Item 1; Exhibit 36, pp. 21, 23-25, proposed stipulated transcript with NRC staff. Docket Nos. 50-424/425-OLA-3; ASLBP No. 93-671-01-OLA-3). The LER statement was fortuitously accurate only because of additional successful starts of the DGs between the time when the count was performed through April 19th.

Several factors contributed to the failure of GPC to assure an unambiguous statement. Some are acts of individuals, others are conditions in which the individuals performed their tasks. First, the draft LER being reviewed on April 19th in the afternoon was based, in part, on the April 9 data. The VEGP General Manager represented that this data had been verified correct by the Unit Superintendent who had gone through the operators logs, and therefore could be relied upon in finalizing the LER. He informed others, including the Technical Support Manager, the General Manager - Support and the acting Assistant General Manager - Support, about the Unit Superintendent who developed this earlier data. He also confirmed that the start count was of starts beginning after the comprehensive test program of the control systems of the DGs. (GPC Tape 58, pp. 8-9, 26-30; Exhibit 36, pp. 9, 26, 30, Tab C, Item 1). The VEGP General Manager did not differentiate between the two Unit 1 DGs, and did not inform these other managers that the beginning point of the count on the 1A DG might be different than for the 1B DG. Although he was informed that employees working for the Technical Support Manager were verifying the LER statement's accuracy, his strong verbal assurances about the beginning point of the count and accuracy of the numbers were relied on by these managers in subsequent deliberations. Recorded conversations do not indicate that he advised that verification by Technical Support employees should be used to confirm the accuracy of his recollection. However, by established practice Technical Support would sign-off on the LER document prior to execution by corporate officers.

Second, the presence of an updated Engineering Support DG start log, which could be readily reviewed to confirm the Unit Superintendent's prior count, would have affected the April 19 verification efforts. (Tab C, Item 2, pp. 76-78, stipulated transcript with NRC staff and provided to the staff on June 22, 1994; Docket Nos. 50-424/425-OLA-3; ASLBP No. 93-671-01-OLA-3). That updated log would likely have assured an accurate understanding of the April 9 data. In this regard, GPC finds the following facts extremely persuasive:

1) Prior to the Unit Superintendent's efforts, the Technical Support Manager informed the VEGP General Manager that the data compiled by Engineering Support was the traditional source of start data. For example monthly INPO reports are based on the log. (Exhibit 38, p. 10 -11; p. 83);

2) The acting Assistant Plant General Manager - Support on April 18, 1990 advised the General Manager - Support that accurate statements about DG starts from March 13 through March 20 were not a problem, but that making accurate statements about DG starts up to April 18 was more difficult (Tab C, Item 3, Tape 53, Side B, p. 8 - approximately 70% through recording).

3) On April 19th, when the acting Assistant Plant General Manager was tasking the verification efforts of the draft LER, he was informed by the Technical Support Manager that "the real key is that it's got to come from [logs maintained by Engineering Support employee] Kenny Stokes. . . And it's got to come from Kenny Stokes because -- you know, I'm just talking about the -- telling the NRC people because Kenny Stokes is the one who makes the calls of 'valid' or 'invalid.'" (GPC Tape 57, p. 76, Exhibit 34, p. 122; Tab C, Item 2). Knowing that the DG start log kept by Engineering Support was not up to date, the acting Assistant Plant General Manager tasked his subordinate to review control room logs for the 1B DG from 3-23 through 4-9 inclusive; this review would be sufficient to "do the job." (Exhibit 34, p. 124; see, also, p. 122, lines 22-24).[13] This conclusion was after another subordinate told him that "we can't get it quickly is my problem. We don't have that information available. That's got to come from. . .." (GPC Tape 57, p. 78, Tab C, Item 2).

Had the "key" updated log been available, no doubt exists that it would have been used by these persons. No reasonable doubt exists that the task of verification would have been substantially shortened. No need would have existed to contact the Unit Superintendent, as was done belatedly on April 19th. Instead, several opportunities would have been present to assure an accurate statement in the LER. Foremost would have been additional time for Technical Support employees, 1) to determine (such as by review of outage schedules) the date and time of the sensor recalibration and logic testing on each of the DGs and, 2) to confirm that such date and time was after 1731 on 3-23 and that 19 starts without problems or failures had occurred since that time. The specific DG start that represented the beginning point for the count, i.e. after completion of the comprehensive test program as defined by the VEGP General Manager, would have been identified. They could have then designated the beginning point of the count by date and time, or specific reference to the start (e.g. E-Run Bubble Test) in lieu of the phrase "comprehensive test program."

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[13] Later conversations indicate that the compilation of starts went through April 19.

4) The Unit Superintendent's start lists were not readily available by the reviewers of the draft LER. This necessitated a new, "from scratch" attempt at data compilation by the Technical Support employees. (GPC Tape 57, pp. 78-79, Exhibit 34, pp. 89-90, Tab C, Item 2).

An updated single source document, if available, would have substantially decreased the degree of reliance placed on the VEGP General Manager's assurances. His statements could have been independently confirmed without significant effort. Rather than merely orally questioning the Unit Superintendent about his historic data compilation, site managers on April 19 could have shown him a written "total start history." He could have directly referred to the document to show his inclusion of starts which were of concern to the acting Assistant General Manager (i.e., 1B starts between 3-20 and 1731 on 3-23). The reviewers then would have known not to rely on the prior data. At that point the two site managers would have a clear conflict between the VEGP General Manager's understanding of when the Unit Superintendent's count began and the Unit Superintendent's recollection. With the conflict shown, any concerns about the ambiguities in the "comprehensive test program" phraseology would have become moot.

Third, the Technical Support Manager, the acting Assistant General Manager and the General Manager - Support failed to clarify the "comprehensive test program" phraseology before issuance of the LER. The two onsite managers also failed to adequately review new data[14] compiled by the Technical Support employees relative to the phraseology before issuance of the LER: "...there was no data that we had that proved the new way we were going to word this was correct. We had the data that brought it into question and we -- and we went forward without any data that proved it correct." (Exhibit 6, p. 91). Technical Support employees who compiled the new data did not review the "comprehensive test program of the control systems" revision of the LER. One of these employees questioned the finalized language as erroneous the first time that he reviewed it, on or shortly after April 20. He was the employee who was tasked on April 19 to verify the PRB-approved LER draft language and did not attend the early afternoon PRB meeting when he was collating control room log start data. (GPC Tape 57, pp. 15-16, Exhibit 34, pp. 27-29); (Tab C, Item 2, Exhibit 6, p. 103).

Fourth, the acting Assistant General Manager, when directly asked whether he took exception to the proposed wording in the final LER draft language presented to him for review voiced no concern. (GPC Tape 57, pp. 26-27; Exhibit 36, pp. 25-27; Tab C, Item 2). Both of the other managers had suggested deleting the statements related to DG numbers. Instead of adopting this approach the acting Assistant General Manager subsequently told the Technical Support Manager that the matter should not be pursued further, even after discussions with the Unit Superintendent and further review of data provided by the Technical Support employees

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[14] The new data compiled on April 19 was apparently not provided to GPC's corporate office.

failed to prove the LER correct. (GPC Tape 58, pp. 37-38, Exhibit 36, pp. 27-28, Tab C, Item 1).

Materiality

GPC acknowledges that the phrase "comprehensive test program" of the "control systems of both engines" is subject to different interpretations. GPC personnel, prior to the submittal of Licensee Event Report ("LER") 90-06 were aware of at least two connotations: (1) VEGP General Manager's connotation of after the recalibration of the Calcon sensors (Exhibit 26, Insert p. 4, lines 2-6; p. 5. lines 1-6, lines 39-44); and (2) acting Assistant General Manager's connotation of after root cause testing of the DGs ending with the first under voltage test (Exhibit 26, p. 26; p. 33). NUREG-1410 and the June 29, 1990 audit reflects a third potential connotation: completion of all of the special testing up through the first surveillance/operability test used to satisfy Technical Specifications. (NUREG-1410, Appendix J, p. 13)[15]. A fourth connotation affecting only the 1A diesel was suggested at the PRB on May 8, 1990: after the third jacket water surge test per Temporary Engineering Test T-ENG-90-016. (PRB Minutes 90-66).

The Notice of Violation concludes that the inaccuracy in the LER was material because "knowledge by the NRC of a lesser number of consecutive successful starts on 1A DG and 1B DG without problems or failures could have a natural tendency or capability to cause the NRC to inquire further as to the reliability of the DG." GPC questions whether this finding of materiality is appropriate for several reasons.

First, as of April 19, 1990 and going back in time "at least 18 consecutive successful starts without problems or failures" had occurred on the DGs for Vogtle Unit 1. The significance of this statement arises from the number of consecutive starts without failures or problems, rather than the beginning point of the start count. It was merely intended to reflect that there had been some failures during troubleshooting as the NRC staff was aware. The demarcation of "subsequent to the comprehensive test program of the control system" is therefore immaterial with respect to influencing the NRC to inquire further as to the reliability of the DGs.

Second, determinations of materiality require careful, common-sense judgments of the context of which the information appears and the regulatory setting of the information. Virginia Electric and Power Company (North Anna Power Station, Units 1 and 2), CLI-76-22, 4 NRC 480, 491 (1976). GPC acknowledges the regulatory importance of accurate Licensee Event Reports. Indeed, the conversations on April 19, 1990 reflect GPC employees conscientiously reviewing draft LER language in addition to the DG start statements. The internal reviews for

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[15] December 23, 1993 Interrogatory Response of Kenneth E. Brockman to Georgia Power's October 8, 1993 First Set of Interrogatories to the NRC Staff, Responses 4 and 3; Vogtle Coordinating Group Analysis dated February 9, 1994, page 14.

this LER included a request to verify the DG statement by the Senior Vice President. Technical Support personnel were tasked to fulfill this request. Managers and officers of the licensee commented on and discussed the draft LER. These internal reviews of the LER were as sure as they could possibly be that the submission was accurate. Even with the reviews, the result still was an ambiguous demarcation of the beginning point of the DG start count. GPC submits that the ambiguity of the LER does not affect the significant messages of the LER:

> That the likely components causing the 1A diesel failure had been identified as Calcon sensors used to monitor high jacket water temperature; and
>
> A factor supportive of this cause was that at least 18 consecutive, successful starts had been observed for the diesels.

The more important message, both for the NRC and the industry, was the identification of the suspect component to prevent future events at the VEGP and other facilities. In fact, on April 23, 1990 the Vice President wrote a letter to the industry DG Owners Group which contained the same DG information which was included in the April 19, 1990 LER. In this way, GPC assured prompt and extensive notification to the industry of potential component unreliability. The ambiguous statement would not have a natural tendency or capability to influence an NRC decision maker in light of its context.

Third, the regulatory setting of the statement should be considered. LER's are prepared and filed pursuant to 10 C.F.R. § 50.73(b) which sets forth the required contents. The cause of each component or system failure, if known, as well as the failure mode, mechanism and effect of each failed component, if known, must be included. Other required information is an assessment of the safety consequences and implications of the event, and a description of any corrective action. Because the 1B DG was not involved in the March 20, 1990 site area emergency, GPC's reference to this component was not required. The omission of the number of starts of either DG after the SAE would not have run afoul of LER reporting requirements. Simply stating that "numerous sensor calibrations, special pneumatic leak testing, and multiple engine starts and runs, were performed under various conditions, as well as an undervoltage test without an air roll for the 1A engine, support GPC's identification of the suspect components" would have fulfilled GPC's reporting obligations. Therefore, the ambiguous phraseology of the LER does not appear material relative to the intended message or relative to the regulatory setting. The NRC is requested to reconsider whether the ambiguity was material in light of these factors.

Corrective Actions Taken and the Results Achieved:

GPC self-identified the "comprehensive test program" as a definitional problem and, on June 29, 1990 submitted a revised LER to the NRC. The revised LER and a cover letter corrected the potential for misinterpreting the phrase "comprehensive test program of the control systems" by applying the most restrictive definition.

Significantly, prior to submitting of the revised LER, GPC orally notified the NRC that the LER was incorrect. On or about May 24, 1990, the Regional Administrator was informed that the original LER contained incorrect numbers of DG starts, and that he would be provided "correct" numbers of starts in a revision. (April 1, 1991 letter of Mr. R.P. McDonald to Mr. Thomas E. Murley, attachment 3 "Response to Hobby/acting Assistant General Manager § 2.206 Petition," Section III.3, p. 6-7). When different "count" numbers were provided to the corporate office, the Senior Vice President assigned the independent site-based Safety Analysis and Engineering Review (SAER) group to obtain the correct number for the revised LER. A second oral notification of the Senior Vice President to the Regional Administrator occurred on June 14, 1990, to inform him of changed start numbers. At this time the NRC was told that an independent review to verify the correct number had been commissioned by the Senior Vice President. The General Manager - Support contacted an NRC Region II manager in the same time frame (See, Tab C, Item 4, August 22, 1990 "White Paper" entitled Diesel Starts and Failure Reporting provided to the NRC Special Operational Safety Inspection team). The Technical Support Manager informed an acting Resident inspector in the same time frame that the LER had to be revised. (GPC Tape 172, p. 31; Exhibit 24, Tab C, Item 5).

Other corrective actions for Violation C, more extensively discussed in response to Violation A of the Notice of Violation, include:

- Posting of the NOV with 10 C.F.R. § 50.9;
- The May 11, 1994 letter of the GPC Executive Vice President to employees;
- Discussions between a GPC Senior Vice President and employees at both of the Company's nuclear plants which stressed accurate communications with the NRC and the need to resolve concerns when voiced by co-workers; and
- Management observation of communications with the NRC to assure that the NOV does not adversely affect the completeness of statements.

GPC's judgment is that these actions have preserved the enhanced communications initiated as a result of a May, 1990 NRC/GPC management meeting.

Request for Treatment as Self-reported and Corrected Violation:

GPC identified the LER statement's inaccuracy concerning DG starts, orally notified the NRC of the error,[16] and submitted a corrected LER on June 29, 1990. It would be strained to judge the revised LER as not prompt, or as "ineffective" because the cover letter to the revised

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[16] This notification was prior to any submission of allegations submitted to the NRC. More specifically, on or about May 24, 1990, the NRC Regional Administrator was informed of the LER's error.

revised LER currently is viewed by the NRC as lacking. GPC requests that the accuracy of the cover letter be considered on its own merits, and the revised LER be considered effective corrective action for the original LER. "Generally, if the matter was promptly identified and corrected by the licensee prior to reliance by the NRC, or before the NRC raised a question about the information, no enforcement action will be taken for the initial inaccurate or incomplete information." 10 C.F.R. Part 2, Appendix C, IX. GPC believes this request is fair because the revised LER, standing alone, would have fulfilled regulatory obligations. The voluntary submission of additional information in the cover letter should not be viewed as negating the original LER's correction.

Moreover, in reviewing this response, the Office of Enforcement should consider the significance of the inaccurate information. Obviously, 18 is numerically different from 10/12 but the enforcement process should also consider whether this is a distinction without a difference. If 10/12 is satisfactory, then merely correcting the number 18 does nothing to undermine the ultimate conclusion of DG reliability. In essence, the question is whether at least "18" consecutive successful starts in the LER, after adjustment, is materially dissimilar from "10/12" to warrant enforcement action. This is particularly true, where, as here, it appears that the NRC did not rely on this number to reach it reliability conclusion. The NRC inspector who apparently had principal, technical input on VEGP diesel engine reliability was Milton D. Hunt. Mr. Hunt was "pretty confident" in the results of the testing after the UV run test and was not concerned with any failures on the "B" diesel that occurred prior to his witnessing of diesel testing. (Exhibit 21). Every test that was tried on the "B" diesel while he was at the site was successful and he was satisfied that it was operable. This technical judgment was based on Mr. Hunt's personal witnessing of DG starts. The NRC Regional Administrator, we believe, would not have been concerned with troubleshooting phase failures -- "if GPC had a subsequent sequence of successful starts, he may have still given his permission to return to criticality, but only after his conversation with NRC staff." (Exhibit 18, p. 2). The Regional Administrator apparently relied on the technical judgment of Mr. Hunt (Exhibit 21, p. 2). In a similar vein, NRC Inspector Peter A. Taylor apparently would not have been concerned about failures during troubleshooting tests since such failures "are not viewed as 'failures'" and "would not have made a difference in an operability or reliability determination." (Exhibit 22, p. 1). Based on these considerations of self-identification and reporting, and significance, GPC requests treatment of Violation C as a self-reported violation which mitigates the NOV. This treatment would re-enforce the appropriate message to licensees to correct LER inaccuracies. 10 CFR Part 2, Appendix C. VII.

NRC Violation D

"Contrary to the above, information provided to the NRC by GPC in an LER cover letter dated June 29, 1990 was inaccurate and incomplete in material respects as evidenced by the following three examples:

The letter states that: "In accordance with 10 CFR 50.73, GPC hereby submits the enclosed revised report related to an event which occurred on March 20, 1990. This revision is necessary to clarify the information related to the number of successful diesel generator starts as discussed in the GPC letter dated April 9, 1990. . .."

1. The LER cover letter is incomplete because the submittal did not provide information regarding clarification of the April 9, 1990 letter.

   The incompleteness was material in that the NRC subsequently requested GPC to make a submittal clarifying the April 9, 1990 letter.

The letter states that: "If the criteria for the completion of the test program is understood to be the first successful test in accordance with Vogtle Electric Generating Plant (VEGP) proc 14980-1 "Diesel Generator Operability Test," then there were 10 successful starts of Diesel Generator 1A and 12 successful starts of Diesel Generator 1B between the completion of the test program and the end of April 19, 1990, the date the LER-424/1990-06 was submitted to the NRC. The number of successful starts included in the original LER (at least 18) included some of the starts that were part of the test program. The difference is attributed to diesel start record keeping practices and the definition of the end of the test program."

2. The last sentence in the above paragraph is inaccurate because diesel record keeping practices were not a cause of the difference in number of diesel starts reported in the April 19, 1990 LER and the June 29, 1990 letter. The difference was caused by personnel errors unrelated to any problems with the diesel generator record keeping practices.

   The inaccuracy was material in that it could have led the NRC to erroneously conclude that the correct root causes for the difference in the number of diesel starts reported in the April 19, 1990 LER and the June 29, 1990 letter had been identified by GPC.

3. The last sentence in the above paragraph is also incomplete because it failed to include the fact that the root causes for the difference in the number of diesel starts reported in the April 19, 1990 LER and the June 29, 1990 letter were personnel errors. First, the Vogtle Plant General Manager who directed the Unit Superintendent to perform the start count (which formed the basis for the April 19, 1990 LER) failed to issue adequate instructions as to how to perform the count and did not adequately assess the data developed by the Unit

Superintendent. In addition, the Unit Superintendent made an error in reporting his count. Second, the Vogtle Plant General Manager, the General Manager for Plant Support and the Technical Support Manager failed to clarify and verify the starting point for the count of successful consecutive DG starts reported in the April 19, 1990 LER.

The incompleteness was material in that, had correct root causes for the difference in the number of diesel starts reported in the April 19, 1990 LER and the June 29, 1990 letter been presented, this information could have led the NRC to seek further information."

GPC Response to Violation D

General Response: Because this Violation identifies three examples, each requiring a response, GPC first provides this general response, and then GPC will respond to each example.

In Example 1, the Staff, concludes that GPC's cover letter to the revised LER and dated June 29, 1990 was incomplete because it promised "to clarify the information related to the number of successful diesel generator starts," which first appeared in GPC's April 9, 1990 correspondence, and yet failed to do so. In part, GPC denies this alleged violation and will show why the June 29 letter was a clarification. GPC admits, however, that the April 9 letter erroneously stated that no problems or failures had occurred in the identified DG starts and that this error was not recognized when the LER cover letter was transmitted. Accordingly, GPC admits that the cover letter was incomplete in that regard.

In the second example, the NOV alleges that the LER cover letter is inaccurate because it attributes the difference in start counts reported in the April 19 LER and the June 29 LER cover letter to "diesel start record keeping practices and the definition of the end of the test program." The NOV states that personnel error, unrelated to record keeping, was the cause of the aforementioned differences. GPC denies that the June 29 letter was inaccurate, primarily because of its strongly held belief that record keeping practices contributed to the numerous, and different, DG start counts. As will be explained in its response to Example 3, GPC does acknowledge that personnel error was also a reason for the start count differences in the two pieces of correspondence.

Example 3 is the corollary to Example 2. Its logic is that if the letter was inaccurate by not blaming the differences in DG start counts on personnel error, then it was also incomplete in the same manner. GPC admits this violation. Although GPC believes strongly that the LER cover letter was (and is) accurate, in retrospect it concurs that the letter was incomplete. Personnel error did contribute to causing the differences in DG start counts described in the April 19 LER and June 29 letter. Unquestionably, the communication in those documents that, "no failures or problems have occurred" during the referenced DG starts needed additional explanation -- a need which GPC recognized only after the documents had been sent. Said slightly differently, a violation of 10 C.F.R. § 50.9 is admitted on the basis that the LER cover

letter was incomplete by not acknowledging that personnel error (i.e. resolution of ambiguity in phraseology) contributed to GPC's failure to identify and resolve the underlying errors in its April 9, 1990 letter and the April 19, 1990 LER.

Example 1

Admission or Denial of Example 1, Violation D:

Example 1 is denied in part and admitted in part.

Reasons for Violation, Example 1:

The starting point for evaluating whether the June 29 LER cover letter clarified "the information related to the number of successful diesel generator starts" in GPC's April 9 letter is, naturally, the initial correspondence. In pertinent part, it said:

> "Since March 20 the 1A DG has been started 18 times, and the 1B DG has been started 19 times. No failures or problems have occurred during any of these starts."

With the revised LER GPC thought that it provided clarification of the original April 9 letter. Vice President C.K. McCoy's own handwritten words, made in an August, 1990 explanation say:

> In a Licensee Event Report (LER) dated April 19, 1990 (LER 50-424/1990-006, ELV-01545) and Revision 1 to this LER dated June 29, 1990 (ELV-01729), GPC attempted to clarify this [April 9th information] by using reg. guide terminology (i.e. valid vs successful starts) and clearly defining the time period. (Emphasis added) (Tab D, Item 1, p. 1).

A review of taped conversations occurring on April 19th confirm also that Mr. McCoy clarified a definition for the time period associated with the April 9th DG data. (Tab C, Item 1, p. 9). The June 29th letter, using Reg. Guide terminology, also clearly defined the time period of count data (by dates of March 21 through June 7) in the revised LER. From Mr. McCoy's viewpoint, each of the documents which followed the April 9 letter attempted to clarify prior statements. The time period of the count was more accurately defined in the June 29 cover letter as beginning with the first successful test was "in accordance with Vogtle Electric Generating Plant ("VEGP") procedure, 14980-1 Diesel Generator Operability Test. . ." Also, instead of the reference in the April 9 letter to starts "without problems or failures" (equivalent to the "successful starts" in the oral presentation) the LER cover letter points out the revised LER's use of commonly known terminology customarily found in LERs, or other reports, e.g. Reg Guide 1.108 terms. Instead of a subjective standard for what constitutes a "successful start" now there was a commonly understood phrase, "valid tests" that would operate as the objective

yardstick. At a minimum, then, this point was taken from fuzzy to precise.

From the perspective of the responsible GPC officers, the cover letter was helpful in additional ways. They thought that the start count numbers referenced in the April 9 letter and April 19 LER were the same and could see plainly that the June 29 cover letter had different numbers. Thus, to them the cover letter provided additional clarification by more fully explaining its basis. It said:

1) Some of the starts in the earlier LER were part of the test program,
2) There was a definitional problem with the end of the "comprehensive test program" and
3) Poor record keeping, i.e., the absence of a single source document, explained the differences.

Furthermore, the June 29 correspondence provided a start count number beginning on March 21, the same beginning time literally stated in the April 9 letter, and used "valid test" terminology which was consistent with phraseology traditionally used in NRC special reports on DG failures.[17] This clearly was helpful in understanding the differences between the two earlier documents and the June 29 correspondence.

Thus, GPC contends the June 29 LER cover letter met its intended goal of providing explanatory information by correcting and clarifying the April 9 letter. It did this by its terms and, from the perspective of the GPC officers, it went beyond what was required to provide a full and complete explanation of the different start count numbers.

Knowing what it knows now, however, GPC admits that the LER cover letter should have corrected the "no problems or failures" language in the April 9 letter. There were concerns raised: Even a casual reading of the transcript of Tape 187 demonstrates that at least one person, Mr. Mosbaugh, was attentive to the absence of this kind of correcting language. Other managers had the opportunity to confront the concern and resolve it, but this was not done. Thus, GPC admits that, to this extent, the June 29, LER cover letter was incomplete. The reasons for this violation are:

1) The concern was raised but not fully addressed. Discussions between GPC site and corporate representatives afforded an opportunity to identify the error in the April 9 letter. GPC's review of these conversations lead to the conclusion that the communication between site and corporate representatives and the failure to explore a "comment" of the former acting Assistant Plant General Manager were underlying factors in this violation. (GPC Tape 157, pp. 2-5, 9-13, 24-25, Tab D, Item 2; and Exhibit 57, p. 61). The corporate licensing engineer involved explained his rationale that the April 9 letter was not in error but, instead, was

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[17]The June 7, 1990 date for the end of the start count contained in the revised LER reflects the date through which the Technical Support personnel had developed a "valid test" start count.

supported by data (the April 9 overlay). In response, the former acting Assistant Plant General Manager cryptically stated his opinion that he thought both the April 9 letter and the overlay were wrong. In this particular conversation, he neither provided supporting facts (which he possessed) nor suggested that the VEGP General Manager had instructed the Technical Support Manager to use the LER cover letter to correct the April 9 document, which he knew. (Exhibit 5, p. 195, 234). He remained silent. Even so, GPC admits that it had enough information to trigger additional questions to resolve the concern.

2) The SAER audit was probably overly narrow in scope. GPC concludes that, by June 1990, enough questions had been raised about the DG start counts, indeed GPC senior management was raising questions too, that the SAER audit probably should have attempted to recreate the development of prior start counts. Of course, this would likely have led to the discovery of the three problem starts that were included in the April 9 numbers. Had the SAER audit examined the development of the April 19 LER "start count" or obtained the Unit Superintendent's start listing for verification, the inclusion of three "problem starts" in the April 9 letter would have surfaced.

3) The former acting Assistant Plant General Manager (now Technical Assistant reporting directly to the VEGP General Manager) did not divulge that he had prepared a written detailed evaluation which was material and relevant to the issues under discussion. As earlier noted, GPC's review of Tape 187 has led it to conclude that the failure to explore a "comment" of the former acting Assistant Plant General Manager contributed to causing this violation. But no discussion of this violation would be complete without focusing on his opportunities to speak accurately and completely.

For example, when commenting on the June 29 cover letter, the Technical Assistant said:

Mosbaugh: In addition, this particular cover letter assigns a -- attributes a reason to the errors, and whereas that statement may be correct, it is certainly not complete as to the cause of our making these mistakes and providing inaccurate information.

Greene: Mm-hmm.

Mosbaugh: We can send a half-truth out, but, you know, it seems to me at this point we ought to be coming clean.

Greene: *How would you change the letter?* [pause]

Mosbaugh: *Well, it would seem to me that somebody ought to explain the truth relative to the mistakes.* (Emphasis added).

What is missing, of course, is the Technical Assistant's revelation that he had already prepared detailed evaluations of DG starts and was personally involved in the LERs development and verification.

After he made his concern known, he was given another opportunity for a full, articulate explanation of what to do; his response was simply not helpful.

Greene: Allen I don't know any -- you know, I wasn't involved in the original LER and I don't know all the sources. I do know that we have revised the LER several times. Most PRB members are getting tired of looking at this (inaudible) the LER. We need to go ahead and just decide what we're going to submit. And that the original LER, everybody agrees, has some problems with it. This is as reasonable a way of explaining how the differences are that I can think of. You have to admit that.

Mosbaugh: It's incomplete.

Greene: *Tell me how you would change the letter then.*

Mosbaugh: *We said this was going to explain the April 9th letter. This doesn't explain the April 9th letter at all.* (Emphasis added).

Greene: All right.

Mosbaugh: This only explains references to the comprehensive test program. The April 9th letter doesn't use any words like comprehensive test program. So how did we make that mistake?

Webb: That April 9th letter also referred to 18 starts, without problems or failures.

Mosbaugh: Yeah, from the time of the event. How was that false? Why was that false?

Webb: Because there wasn't 18 starts with no problems or failures. There were starts with problems on that basis.

Mosbaugh: Well, okay, is that because we counted starts that were included in the test program? No. It's a different reason.

* * * *

Greene: What do you think the cause was?

Mosbaugh: The information was all available, okay.

Odom: You say the information was available, then how does it fit that the (inaudible) was it easily ...?

Mosbaugh: I don't know. You know, you're trying to ask me to state why somebody else made mistakes, okay, and I don't know how to do that. I took the same set of information and got right numbers.

* * * *

Example 2

Admission or Denial of Example 2, Violation D: Example 2 is denied.

Reasons for the Denial

Example 2 of Violation D addresses the accuracy and completeness of the sentence "the difference is attributed to diesel start record keeping practices and the definition of the end of the test program." The "difference" specifically addressed by this sentence is, as recognized by the NRC, the difference in the number of DG starts reported in the April 19, 1990 LER and the June 29, 1990 LER cover letter. GPC has carefully considered the NRC's analysis of this sentence. It has also conducted interviews of employees with first-hand knowledge of the development of the April 19, 1990 LER who were not interviewed previously by the a The NRC's reviews miss the significance of the fact that the Unit Superintendent develo written list from control room logs prior to April 9, 1990 and that a different list was developed on April 19, 1990 in support of the development of the LER. GPC has concluded that the NRC is in error in concluding that personnel errors "unrelated to any problems with the diesel generator record keeping practices" was a cause of the difference in the number of starts reported in the April 9, 1990 LER as compared to the June 29, 1990 letter for the following reasons.

The need for an accurate record of diesel-related starts license and testing was evident immediately after the SAE. George Frederick acknowledges the importance of this need when he said, ". . .You don't keep a record, you are doomed for disaster. . .." (Exhibit 57, p. 31). Paul Kochery, using the control room logs, fashioned a preliminary list in response to NRC inquiries (Tab D, Item 3, IIT Document 05-180-90). Kochery stated that he probably started listing these control room entries because the Engineering Support DG start log had not been updated past March 12 or 13. Similarly, tape 19 dated March 29, 1990, reflects an effort by the Unit Superintendent to retrieve control room logs, so he could highlight the starts and stops and confirm the performance of the 1A diesel. The NRC's need for up-to-date data was also evident. IIT Document 212, p. 4-5 reflects NRC difficulty in developing a finalized, complete picture on DG starts and stops. (Tab D, Item 4). In response, the Technical Support Manager recognized that a resolution would be to make sure that the "diesel log is totally up-to-date. That is how we keep track of our starts and stops. And we will fax you the latest copy of the diesel log." Clearly the absence of a single source document, i.e., the updated, verified, and retrievable Engineering Support DG start log, was an impediment experienced by the agency and the licensee in having a common understanding and appreciation of DG start history.

Prior to the April 9, 1990 presentation to the NRC Region, VEGP General Manager requested the Technical Support Manager to perform a DG start count; the Technical Support Manager informed him that his Technical Support group obtained the start count from Engineering Support. (Exhibit 38, p. 10-11; Technical Support obtained DG start log information for NRC "Special Reports" and the monthly INPO reports. Exhibit 38, p. 83).

The Unit Superintendent's compilation of starts, based on control room logs, was not precise. (Exhibit 11). A review of the list shows that 1B DG starts 128 through 133 were not recorded in the control room logs.[18] In addition, the Unit Superintendent appears to have made a mistake in listing an April 1, 1990 "phantom" start. Without doubt, if the Unit Superintendent had an updated Engineering Support DG start log on April 6, 1990, the omission of the unlogged starts would not have occurred.[19]

Additionally, the lack of the single source DG log for starts after March 13, 1990 also necessitated the manual development of start numbers for use in reporting, pursuant to 10 C.F.R. 50.73, the valid 1A DG failure which occurred on March 20, 1990. As reflected in April 18, 1990 conversations (Tape 53, side B, approximately 70% through the recording, Tab C, Item 3), the corporate office had been apprised that records in the DG log after March 13, 1990 were absent. Mosbaugh advised that making statements about DG tests after March 13-20 was not a problem, but "I think it becomes more difficult to make statements, you know, up to today [April 18]." Consequently, prior to the finalization of the LER on April 19, 1990, the difficulty, and possible error, inherent in making start count statements in the absence of an updated log was recognized by the acting Assistant Plant General Manager - Support.

Because of the absence of an updated DG log, on April 19 Technical Support personnel were tasked to develop a list of start attempts and any associated problems from control room logs (see, generally, Response to Violation C). The list is referred to in April 19 conversation, and given the known methodology and source documents, the list would <u>not</u> have included starts 128 through 131 or the April 1, 1990 "phantom" start on the Unit Superintendent's list. The list would have included start attempts through the afternoon of April 19. (See, Exhibit 36, p. 37, lines 12-19: "Odom counted up to the present."). For the 1B diesel, five satisfactory surveillance tests under procedure 14980 were performed in this additional time frame, and one inadvertent emergency start. On June 29, 1B data included starts 128 through 131, although they were not involved in the count because of the definition assigned to the "comprehensive test program."

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[18]The acting Assistant Plant General Manager - Support in his written allegations to the NRC also noted the absence of these starts in the Operations Department control room logs, as well as the failure of data sheet development for certain start attempts. (Exhibit 5, pp. 184-186.)

[19]The Unit Superintendent can not correlate the specific starts which he included in the "18" and "19" to his start count list. However, given the timing and character of starts 128 through 131, a reasonable conclusion is that the missing data affected his count.

Finally, GPC requests that the NRC reexamine the actual wording used in the LER cover letter in considering this response to the Notice of Violation. The sentence in question does not represent that a definitive root cause analysis had been performed on the underlying events. In addition, the opinion-based nature of the sentence is reflected in the wording choice (i.e., "is attributed to" by GPC based on the SAER audit). A comparison is being made between two documents, not merely an identification of the cause for the first document's LER error. In the first instance DG start records were incomplete, as acknowledged by the acting Assistant Plant Manager - Support on April 18, 1990 and in his July, 1990 interview with the NRC. The lack of a precise "definition of the end of the test program," on April 19, 1990 contributed to the original LER's error as well. Had a single source DG start document been available on April 19, 1990 and had a precise definition of the comprehensive test program been applied, the original LER would not have been in error. In the second instance, on June 29, the Engineering Support DG start log had been completed. Several additional starts omitted from prior lists had been identified. A clear difference in documentary basis had been used for the two different counts.[20]

Thus, GPC contends that the June 29 LER cover letter accurately states that a cause of the LER's error was record keeping practices.

Example 3

Admission or denial of Example 3, Violation D: Example 3 of Violation D is admitted.

Reasons for Violation D, Example 3

As GPC has described in its response to Violation A and the other two examples of this Violation, it admits that the Unit Superintendent's personnel error was a cause of the inaccurate language in the April 9 letter. GPC does not view the Plant General Manager's assignment of the task to the Unit Superintendent, or subsequent assessment of the data as involving performance failures. As set out in response to Violation C, GPC believes that the Unit Superintendent's error was supplanted by the independent verification efforts by Technical Support personnel who were tasked by and reported to the Technical Support Manager and the

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[20]The acting Assistant Plant Manager - Support's efforts between April 20 and May 8, 1990, demonstrate the ability to develop an accurate count for inclusion on an LER if (1) all relevant records are located and compiled in one location, and (2) an express definition is assigned to the end of the comprehensive test program. By the time he did this, though, he knew of the degree of difficulty of the task. Those who performed start counts on April 19 and before April 9 were not as fortunate. For them the value of a single source document would have been immeasurable.

acting Assistant General Manager.[21]

But admitting to making "personnel errors" does little to correct the conditions which permitted them to occur; and that's the only way to improve future performance. GPC believes that, regardless of the specific individuals involved, DG start record keeping practices and greater precision in defining ambiguous wording are causes which encompass or "bound" the various personnel performance failures which have been identified by either the NRC or GPC. In GPC's opinion, the combination of accurate DG start records and a precise definition of the end of the comprehensive test program on April 19, 1990 are the two essential elements which were missing that day. In addition, had they been present, the Unit Superintendent's earlier efforts would likely not have been used or, at the least, his error would have been caught and corrected.

The failure of GPC employees to resolve a concern also contributed to the violation. The reason for this failure was an atypical situation in which the concern holder withheld detailed knowledge which he possessed and fellow employees did not fully explore his basis for the concerns. Had the information been forthcoming, a different weighing of knowledge and opinions might have resulted.

Corrective Action Taken - Results Achieved:

Please refer to pertinent corrective action sections of GPC's responses to Violations A and C. Those actions are believed to encompass sufficient corrective action to preclude violations similar to Violation D. In addition, on January 2, 1991, the new VEGP General Manager sent correspondence to each VEGP employee which addressed the essential nature of frank and open communications, including the voicing of concerns. "The identification of issues which may adversely affect safety or health is a fundamental responsibility of each employee." (Tab D, Item 5).

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[21] Violation D.3 refers mistakenly to the "Vogtle Plant General Manager" as failing to clarify and verify the starting point for the count for successful consecutive DG starts. The acting Assistant Plant General Manager, rather than the Plant General Manager, was aware of the ambiguity in the starting point for the count. (See, May 9, 1994 Notice of Violation transmittal letter, p. 5).

NRC Violation E:

"Contrary to the above, information provided to the NRC Region II Office by GPC in a letter dated August 30, 1990 was inaccurate and incomplete in material respects as evidenced by the following two examples:

The letter states that: "The confusion in the April 9th letter and the original LER appear to be the result of two factors. First, there was confusion in the distinction between a successful start and a valid test... Second, an error was made by the individual who performed the count of DG starts for the NRC April 9th letter."

1. These statements are inaccurate in that confusion between a successful start and a valid test was not a cause of the error regarding DG start counts which GPC made in its April 9, 1990 letter to the NRC.

   The inaccuracy was material in that it could have led the NRC to erroneously conclude that the correct root causes for the error in the April 9, 1990 letter had been identified by GPC.

2. The statements are also incomplete. While an error was made by the Unit Superintendent who performed the count of diesel starts for the April 9, 1990 letter, the root causes of the error in that letter were not completely identified by GPC. Specifically, the VEGP General Manager who directed the Unit Superintendent to perform the start count failed to issue adequate instructions as to how to perform the count and did not adequately assess the data developed by the Unit Superintendent. In addition, the Unit Superintendent did not adequately report his count to the Vogtle Plant General Manager.

   The incompleteness was material in that, had the correct root causes for the error in the April 9, 1990 letter regarding DG start counts been reported, this information could have led the NRC to seek further information."

GPC Response to Violation E

Admission or denial of Violation E: The violation is denied.

Reasons for the Denial:

Violation E is based on two instances in which GPC's August 30, 1990 letter is viewed as inaccurate or incomplete. In the first example, the NRC misquotes and unreasonably reads GPC's August 30 letter. The statements in the August 30 letter are accurate, when taken in context. (Tab E, Item 1). In the second example, the NRC incorrectly concludes that the letter was incomplete when, in fact, the letter was complete relative to the letter's intended purpose.

Example 1 of Violation E:

The NRC letter of May 9, 1994 transmitting the NOV at page 8 concludes that GPC's letter stated "that errors in the April 9 letter and presentation and the April 19, 1990 LER were caused, in part, by confusion in the distinction between a successful start and a valid test" (emphasis supplied). First, the NRC misquotes the GPC letter. The letter actually states "the confusion in the April 9 letter and the original LER appear to be the result of two factors" (emphasis supplied). An earlier draft of the letter, referred to in conversations, used the word "errors" but was revised. This revision avoided any suggestion that the distinction between the two terms by the Unit Superintendent was one of the reasons for the error in the April 9 letter.

Second, GPC's statement cannot reasonably be construed as stating that confusion between a successful start and a valid test was a cause of the error in GPC's April 9 letter, i.e., either confusion by the Unit Superintendent in performing his count, or confusion after April 9. The letter by its express wording describes two factors which caused confusion about the April 9 letter: (1) confusion about the distinction between a successful start and a valid test and (2) an error made by the Unit Superintendent who performed the count of DG starts. After describing the historic submittals to the NRC in initial paragraphs, the letter accurately describes two sources of confusion which developed from the time the April 9 letter was submitted, through the August, 1990 special Operational Safety Inspection[22].

Third, the August 30 letter expressly states "our use of the term 'successful' was never intended to imply a 'valid successful test' in the context of Regulatory Guide 1.108" (emphasis supplied). This sentence explains that no prior correspondence's use of "successful starts" meant that the counts, or counter(s), applied formal Regulatory Guide terminology. Similarly, GPC told the NRC special Operational Safety Inspection team a week or so before that "The 19 starts discussed on April 9 were based on operator assessments of the starts as successful using VEGP procedures." Therefore, the allegedly inaccurate statement can not be read, in context, as stating that a root cause of the error in the April 9 letter was confusion between a successful start and valid test. The statement was simply a recognition of past developments. Real confusion by some NRC employees about the terminology used in the April 9 presentation and letter had developed over time. (Exhibit 23, p. 1; questions posed by the special Operational Safety inspection team in August, 1990 (e.g., Exhibit 1, p. 2 - ". . .Those inspections. . . did develop enough information to indicate that there may, in fact, have been a 'counting problem' with respect to enumerating the number of starts and defining what actually constituted a valid start for counting purposes"); (Exhibit 9, pp. 8-9; Exhibit 12, pp. 11-12; and Tape 184, Exhibit 60, Insert, p. 15; p. 20).

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[22] Another way of stating this can be found in an earlier draft of the letter: "In hindsight this use of multiple terms [in the historic correspondence] to discuss diesel engine starts was confusing and in combination with the operations superintendent error in counting the number of starts resulted in the confusion of the April 9 letter." (Tab E, Item 2).

Some GPC personnel also became confused about DG start terminology over time. Between June 29 and August 30, 1990 different connotations of the term "successful start" ultimately lead GPC to identify three 1B DG starts designated starts 132, 134 and 136 as unsuccessful starts. Each had previously been treated as "successful starts." Based on new, specific definitions set out in the August 30 letter, starts 132 and 136 were treated as unsuccessful, even though the diesel ran for one and a half and one-half hours, respectively. (Tape 184, pp. 12-14; Exhibit 29, p. 80 and Exhibit 40, p.73). For these reasons, GPC denies that the August 30 letter was inaccurate in its discussion of confusion which developed over time about with the NRC and GPC reviews of the DG start counts.[23]

Example 2 of Violation E:

GPC's August 30, 1990 letter was complete. The letter identified personnel error in the development of the April 9 letter's inaccuracy: "Second, an error was made by the individual who performed the count of DG starts for the NRC April 9th letter." But the purpose of the letter was not to provide the NRC with a root cause analysis of the April 9 letter error. The purpose of the letter is expressly articulated in it: "However, during a recent inspection it was pointed out hat the revised LER did not adequately clarify the number of starts in the April letter." This purpose is as reflected in other contemporaneous documents ". . .an appropriate report to clarify the number of starts reported April 9, 1990. . .." (Tab E, Item 3 August 22, 1990 OSI White paper, p. 2).

The August 30th letter fulfilled its intended purpose -- it laid out all the starts in Tables and, using a new definition of "successful start" defined in the letter, identified starts which were inappropriately included in the April 9 presentation and letter.

GPC acknowledges that it failed to timely recognize and correct the April 9th letter. (See, generally, response to violation D). Notwithstanding the corporate office's desire to understand why an LER revision was warranted (PRB 90-81 Minutes, p. 5 of 5, Tab E, Item 4) and attempts by GPC corporate office managers to obtain an explanation as to why the LER was in error (Tape 157, Tab D, Item 5, pp. 3-10, 12), we failed to identify and take timely corrective action on the error in the April 9, 1990 letter. Because no error in the April 9, 1990 letter was identified, no effective action was taken to determine the underlying error until the NRC August, 1990 special Operational Safety Inspection. Based on knowledge gained in that inspection, GPC came to its conclusion that the Unit Superintendent had made an error by inclusion of start 134 in his count, as reflected in the transparency presented to the NRC on April 9.

Violation E is also premised on the NRC's conclusion that personnel errors by the

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[23] The former acting Assistant Plant General Manager - Support also observed that confusion arose relative to the terminology used in counting starts. (Exhibit 92, Insert p. 3, lines 18-24).

General Manager were a contributing cause of the errors in the April 9, 1990 letter. As explained in response to Violation A, the narrow tasking of the Unit Superintendent by the General Manager, the Unit Superintendent's knowledge of the prospective use of his data and the actual revision of the transparency by the Unit Superintendent for GPC's use on April 9, 1990, convince us that the General Manager did not fail to adequately task or provide sufficient oversight of the performance of the task. Although he was the "architect" of the DG transparency, the General Manager's actions were not a significant factor in, or "root cause" of, the April 9 letter's error.[24]

We also disagree that the special inspection in August, 1990, should have prompted an assessment of the actions of the General Manager and the Unit Superintendent. The NRC's observations in the NOV transmittal letter come from conversations in an August 17, 1990 meeting, after a meeting with the NRC team leader but before the team's exit. The Vice-President was advised that the underlying issue of "intentional error" had been "basically resolved. . ." The issue that the team had not resolved was why the LER and the cover letter that sent it did not address 12 sequential starts. (Exhibit 68, p. 33, lines 8-14; see, also, p. 35, lines 6-7; p. 38, lines 6-16). Contemporaneous documentation also reflects the fact that the Vice President was told that the "intentional error" allegation had been resolved by the NRC. First, the NRC's exit notes reflect this fact. Second, a letter from the General Manager to plant employees restated the NRC's conclusion. (Tab E, Composite Item 6). Third, the NRC did not request, nor do we suspect expected, an explanation of personnel error associated with the April 9 letter. The NRC had interviewed the Unit Superintendent and the General Manager. It knew that the start count was a "successful sequential" start count. (Exhibit 68, pp. 37-38). It also knew that "one successful start" was, in fact, a "failure" or "unsuccessful," and broke the sequential or consecutive "19." (Exhibit 29, p. 80; Exhibit 40, p. 73; Exhibit 68, p. 33, lines 19-23).[25] Thus, GPC should not have held a heightened concern after August 17, 1990, or believed that the NRC desired anything other than a technical clarification of the start numbers. From the perspective of GPC, the allegation had been resolved, and only a technical closure on start numbers and reporting of "invalid failures" remained open.

In hindsight GPC observes that the September, 1990 § 2.206 petition raised additional questions about the April 9 letter and the LER, and prompted an NRC investigation , i.e. an "assessment," of the performance of the General Manager and the Unit Superintendent, among others. But the purpose of the August 30, 1990 letter was not to address these questions and was not an attempt of such an undertaking. The NRC's analysis unfairly and inaccurately

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[24] "Successful starts" were provided to the NRC in the April 9th presentation. The April 9 letter describes starts "without problems or failures." The General Manager reasonably considered these phrases as synonymous.

[25] On December 19, 1990, by an informal memorandum from Mark Ajluni, the Vice-President was informed of documentary basis of the specific error (which correlates with start 134 of the 1B DG).

implies that it was.

With respect to the Unit Superintendent's reporting of his count to the General Manager, please refer to GPC's response to Violation A. His count was reported, in writing, by modification of the draft transparency used on April 9.

Materiality

We request the NRC to reexamine its materiality findings in light of the express purpose of the letter, as understood by both the NRC and GPC. On September 20, 1990, the Vice President - Vogtle, called the NRC's Mr. Ken Brockman, who had been the Region II representative involved with the VEGP's recovery from the SAE and then the customary contact in the Region for the Vice President. Mr. Brockman and the Vice President discussed the August 30 letter and, as reflected in contemporaneous notes, Mr. Brockman "indicated they had all [the] info[rmation] and understood what occurred." (Exhibit 29, p. 106, p. 72). Therefore, at the time the NRC, which had conducted a detailed "assessment" did not view the letter as incomplete. These facts indicate that the materiality finding in Violation E is based on hindsight review of September, 1990 allegations addressed in the OI report, rather than an examination of whether the information was material to the NRC at the time. The purpose of the August 30 letter was not to address those allegations.

Moreover, the NRC's determination of materiality is in the abstract, without a meaningful examination of whether the allegedly omitted information would have been considered by reasonable staff experts. We suggest the omitted information was neither requested nor had a potential bearing on the issues under discussion in late August, 1990. The omitted information could not have led to further inquiry, because the relevant issues had been resolved.

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10 Transcript of audiotape No. 19,
11 transcribed by Sally J. Dixon, Certified Court
12 Reporter and Notary Public.
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(404) 876-8979

1 BOCKHOLD: Outage activities.
2 HOLMES: What do we do to the diesel.
3 BOCKHOLD: What do we do to the A diesel.
4 DEMICO: We're putting together a listing
5 of (inaudible.) (Phone Ringing.)
6 BOCKHOLD: One thing -- one-page listing
7 of what we did (inaudible) major activity, that kind
8 of thing (inaudible) that makes sense (inaudible.)
9 HOLMES: I had that next one up there.
10 We have been asked for that several different times.
11 We may have already given it to them. Some of
12 them may have heard about it. Others may not have.
13 CASH: I got the logs and highlighted the
14 start and stops, loading of the diesel and
15 everything pertaining to the diesel from the time we
16 rolled 1A diesel on, I believe, the 12th through the
17 24th -- which over the liefetime (inaudible) didn't
18 have the stuff of the lifetime.
19 HOLMES: I don't know George will want to
20 do that (inaudible.)
21 BOCKHOLD: Okay. I think specifically
22 the failure and what we did after each failure on
23 one A that would be (inaudible.)
24 LACKY: We didn't have any failures but
25 the one during the incident; is that correct?

1 CASH: Correct.

2 (Inaudible.)

3 BOCKHOLD: We didn't have any failures.

4 We tore it down, and we started it back up, and it

5 ran fine. Okay. Well, that's -- we can evase that

6 whole thing. We can simply say that.

7 BOCKHOLD: (Inaudible) Why don't you

8 (inaudible.)

9 BOCKHOLD: Outage activities, put "and no

10 failures" up there as kind of a reminder (inaudible)

11 secretary type the agenda.

12 BURWINKLE: You going to produce the

13 agenda.

14 BOCKHOLD: Yeah. (inaudible.) Okay.

15 And then we're going to go into the test sequence.

16 We're going to -- who is going to walk them through

17 this fragment.

18 HOLMES: Either Mike or I. I don't know

19 that -- Mike, what do you think?

20 LACKY: I can or you. It doesn't matter,

21 either one.

22 HOLMES: George, who do you want?

23 BOCKHOLD: Well, let's ask if there are

24 any disagreements with this fragnet.

25 BOCKHOLD: One of the world class experts

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the southern electric system

W. G. Hairston, III
Executive Vice President
Nuclear Operations

May 11, 1994

TO ALL GEORGIA POWER EMPLOYEES

By now each of you have been made aware of the recent Notice of Violation and proposed imposition of a $200,000 civil penalty against Georgia Power Company. The Company is still evaluating this document, both its factual conclusions and the legal options, and will prepare an appropriate response. The purpose of this letter, though, is to assure all of our employees that Georgia Power Company remains firmly committed to a full, open, complete and accurate communications policy with the Nuclear Regulatory Commission, any of the Company's regulatory authorities, and with each other. Regardless of the outcome of the Notice of Violation, all of us should consider it our personal responsibility that when called upon to communicate with the Nuclear Regulatory Commission or its staff, whether orally or in writing, we will do our best to ensure that the information provided is complete and accurate in all material respects. This is our obligation by law, this is our obligation by the terms of our licenses, but more importantly, it is the right thing to do.

We should all remember, and take seriously, that the policy of Georgia Power Company is to conduct its business affairs in an honest, ethical manner and to comply with all laws and regulations affecting the Company. Important to our success as a company is our success at compliance with our legal obligations.

If you have a concern which you wish to raise, then you are encouraged to do so. Georgia Power Company's policy is to encourage its employees, and employees of its contractors, to communicate their concerns to their supervisors, which they are free to do at any time. If an employee concern cannot be resolved through this traditional channel, or if the employee wishes to pursue the matters through the concerns program, then use of that program is encouraged. In short, the Company wants you to feel free to raise any concern which you may have and has provided

multiple ways for you to do so. You will be treated with respect, you will be treated with courtesy, and a fair and reasonable response will be provided promptly and completely. Of course, you may always go directly to the Nuclear Regulatory Commission if you wish and the way to do this, as well as the relevant phone numbers, is posted on numerous bulletin boards throughout the work areas. Rest assured that you may raise your concerns without any fear of penalty or retaliation.

Let's all work together as a team, and dedicate ourselves to safe and efficient nuclear plant operations. We all have a community of interest in the success of our company, we all have a community of interest in full, open, complete and accurate communication with ourselves and with our regulatory authorities. Let's pursue these goals to the best of our individual abilities.

W. G. Hairston III

W.G. Hairston, III

VOGTLE

5/11/94 4:15 p.m.

I. DISCUSSION OF POLICY OF OPEN COMMUNICATION AND THE LETTER TO ALL EMPLOYEES

By now each of you have been made aware of the recent Notice of Violation and proposed imposition of a $200,000 civil penalty against Georgia Power Company. The Company is still evaluating this document, both its factual conclusions and the legal options, and it will prepare an appropriate response. The purpose of this meeting, though, is to ensure you all that Georgia Power Company remains firmly committed to a full, open, complete and accurate communication policy with the Nuclear Regulatory Commission, any of the Company's regulatory authorities, and with each other. Regardless of the outcome of the Notice of Violation, all of us should consider it our personal responsibility that when called upon to communicate with the Nuclear Regulatory Commission or its staff, whether orally or in writing, we will do our best to ensure that the information provided is complete and accurate in all material respects. This is our obligation by law, this our obligation by the terms of our licenses, but more importantly, it is the right thing to do. I encourage you to read the Notice of Violation and read 10 CFR 50.9 which are posted on the plant bulletin board.

We should all remember and take seriously, that the policy of Georgia Power Company is to conduct its business affairs in an honest, ethical manner and to comply with all laws and regulations affecting the Company. Important to our success as a company is our success at compliance with our legal obligations.

If you have a concern which you wish to raise, then you are encouraged to do so. Georgia Power Company's policy is to encourage its employees, and employees of its contractors, to communicate their concerns to their supervisors, which they are free to do at any time. Rest assured that you may raise your concerns without any fear of penalty or retaliation. If an employee concern cannot be resolved through this traditional channel, or if the employee wishes to pursue the matter through the concerns program, then use of that program is encouraged. In short, the Company wants you to feel free to raise any concern which you may have and has provided multiple ways for you to do so. You will be treated with respect, you will be treated with courtesy, and a fair and reasonable response will be provided promptly and completely. Of course, you may always go directly to the Nuclear Regulatory Commission if you wish, and the way to do this, as well as the relevant phone numbers, is posted on numerous bulletin boards.

II. SUMMARY OF EVENTS

In March, 1990 Vogtle Unit 1 was in a normal refueling outage with one emergency diesel generator and one offsite supply transformer tagged out of service for routine maintenance. While in this condition, a truck backed into a transmission line support for the other supply transformer for offsite power to the unit. When the remaining emergency diesel generator attempted to start, it tripped due to a false trip signal resulting in a loss of power to plant safety systems. The diesel generator was subsequently started manually to restore power until offsite power was restored.

In the investigation of the causes of this event, the issue of the reliability of the diesel generators was one of the issues which needed to be resolved prior to returning the unit to

operation. Our employees, often under the observation of NRC inspectors, conducted extensive investigations and testing of these diesels before the unit was restarted.

Subsequent to these investigations, a meeting was held with the NRC to discuss the event and all the corrective actions taken to prevent recurrence and ensure the unit was ready to return to service.

During this meeting, information was provided regarding the investigation and testing of the diesel generators which included a summary of the number of successful test starts done on each of the diesels subsequent to the investigation to demonstrate reliability. This information was gathered by plant employees and was later found by one of our employees to have been in error. This error was reported verbally to the NRC. It was several months before all the confusion and errors were resolved.

While we continue to believe that all employees honestly and diligently attempted to provide accurate and complete information to the NRC, and the Notice of Violation did not attribute the error to willful conduct, clearly there are some lessons we should learn from this experience. The purpose of this discussion is not to debate the Notice of Violation--that is still under evaluation.

III. LESSONS LEARNED

In light of this event and the NRC enforcement action, I would like to reiterate two important policies that are key to our operation:

1. We must always provide complete, accurate information regarding our operation to the NRC. This open and proactive sharing of all relevant and significant information

is essential--even if it goes beyond the scope of an information request. It is important to be precise, accurate and complete in information provided and to identify the bases and qualifications of data provided.

2. All employees have an obligation to raise any concerns they have to their supervisors, and to follow through to ensure the concerns are addressed. Supervisors and managers must be sensitive to concerns raised, and must ensure the concern is resolved and appropriate feedback is provided to the person who raised the concern. That includes any concerns about the accuracy of information. Even though we have particular employees and managers primarily responsible with developing and verifying letters, LERs and similar submittals to the NRC, each of us is responsible to call attention to any errors or inaccuracies in them. We also should suggest additional information which would assure that a complete and balanced message is being sent. Supervisors and managers, as well as co-workers, have to be sensitive to concerns raised; they must ensure that the concern is understood and resolved; and they should provide appropriate feedback to the person who raised the concern. It is sometimes not enough to resolve an issue in <u>your</u> mind--you need to be sure that the issue has been resolved in the other person's mind too. Sometimes you know the resolution as a matter of common sense or past experience, but you need to share that common sense or experience with your co-workers.

IV. OUR OWN SELF-INTEREST

Following our policies will obviously provide assurance that we fulfill our legal obligations under our license. Following the policies will also serve our long-term best interests on a broader scale as well. We need to be aware of those self-interests as we feel the various emotions that result from this case. Our natural, human reaction to a major proposed violation, as this one is, resulting from information which was provided to the NRC, may be draw back, to think that if less or the bare minimum of information has

been provided, or if no concern has been raised, no problem would exist today. In other words, "you can't get into trouble if you don't say nothin'."

That approach is totally at odds with our two policies. The best hopes for our industry, and the continued success of this plant, are vitally dependent on the continued trust of the public in our actions. If we do not provide accurate and complete information to the NRC, we will lose that trust. If we fail to resolve concerns once raised, we will not provide complete and accurate information to the NRC. One of the most effective means of building and keeping the trust of the public in us may well be in our communications with the NRC.

71589.67449
IIT DOCUMENT NO. 145

55-145G

OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: U.S. NUCLEAR REGULATORY COMMISSION

Title: BRIEFING MEETING

Docket No.

LOCATION: Waynesboro, Georgia

DATE: March 28, 1990

PAGES: 1-105

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U. S. NUCLEAR REGULATORY COMMISSION

BRIEFING MEETING)
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Auditorium
Administration Building
Vogtle Electric Generating Plant
Waynesboro, Georgia

Wednesday, March 28, 1990

The briefing commenced at 10:26 a.m.

APPEARANCES:

On behalf of the Nuclear Regulatory Commission:

WILLIAM LAZARUS
RICK KENDALL
AL CHAFFEE
GENE TRAGER
MILTON HUNT

On behalf of EPRI:

HARVEY WYCKOFF

1 look at it as a group -- as those groups when they come in
2 the logic board, we'll vent that group of sensors off to
3 watch the diesel trip.
4 In this case we're looking at the smaller pieces,
5 here we're looking at the larger combination of the trips
6 for an actual running diesel and watch the diesel trip.
7 MR. CHAFFEE: So it sounds like you're satisfied
8 that this is a comprehensive test and if the problem is
9 still there -- that's a bad question -- this is as
10 comprehensive as you can make it.
11 MR. HOLMES: Yes, we believe it is as comprehensive
12 a test as we can make it to try to identify the root cause
13 of the problem. We'll be looking -- first of all we'll try
14 to recreate the situation, then we'll go and look at the
15 sensors, we'll look at the logic, we'll look at the lines,
16 we'll look at the integrated tests of starting and stopping
17 and tripping and then we'll go back and do another UV test
18 to see if we created another problem for ourselves.
19 I hope I don't have to come back up here and tell
20 you we found nothing.
21 MR. CHAFFEE: As far as the air quality that's in
22 the pneumatics, is there any way to get a handle on whether
23 or not that contributed to this intermittent problem? I
24 understand that you do tests to make sure it's not a
25 problem, but like was there a test taken on the air before

1 the event, has one been taken after the event, is there any
2 difference in those? Is there anything like that that can
3 be done to try to determine if somehow you had a fluke, some
4 debris or moisture or something that maybe was there at the
5 time, that is gone now and that's why -- you know what I'm
6 saying?
7 MR. BURR: We can probably get dew point readings.
8 MR. CHAFFEE: I don't know when your last dew point
9 was, I don't know if it was --
10 MR. BOCKHOLD: We'll go ahead and take the action to
11 go ahead and go to our logs and find out what the last dew
12 point was, when it was and we'll take a dew point, we'll add
13 that into some parallel path in the testing modes. We've
14 got plenty of time to get a dew point.
15 MR. HOLMES: You're also asking about air quality.
16 MR. CHAFFEE: From what I can tell, it sounds like
17 you're come up with about every test possible if the thing
18 is there to find it. So now the only thing I can think of
19 is how can you figure out if there's something intermittent.
20 The only thing I can think of that's intermittent is maybe
21 some sort of poor air quality or debris that caused one of
22 these sensors to act irregularly for a period of time and
23 then somehow in testing the diesel it's gone away. So maybe
24 there's some way to go back and find out that maybe that was
25 the case. But I don't know how to do that.

1 That's the only thing I can think of.

2 MR. BOCKHOLD: We'll go look at it. We can get out
3 the INPO guidelines on instrument air systems and see what
4 other kind of tests that we have been running on instrument
5 air systems or if we can come up with the same testing that
6 we do for normal plant instrument air systems, we may be
7 able to do it for a section of the diesel.

8 MR. KENDALL: I think we'd like to know what test on
9 the air system is routinely done for the diesel start
10 system.

11 MR. BOCKHOLD: We'll take that action, we'll go do
12 that and then we'll go run a battery of tests on the air
13 system for the diesel.

14 MR. KENDALL: Ken, I have one more question. On the
15 logic board test and the sensor testing, is the extent of
16 the testing that's going to be done on the A diesel
17 generator now in this plan, is it essentially identical to
18 what was done during the 36 month inspection and testing?

19 MR. KOCHERY: No.

20 MR. HOLMES: I believe that the logic board testing
21 would be very similar to what was done post-maintenance.

22 MR. KOCHERY: If you look at the procedure we marked
23 there, you'll see some of them on the schedule. The marked
24 up version of the procedure. Basically all the trips will
25 be looked at.

257-F

OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: Nuclear Regulatory Commission

Title: IIT Teleconference

Docket No.

LOCATION:

DATE: April 3, 1990

PAGES: 1 - 74

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diesel back to service and anything that was suspect, if it [inaudible] at all, we replaced it with a new one.

VOICE: Okay. Just a second, George.

[Pause.]

VOICE: Is there Cooper there, also?

VOICE: No, Cooper is not.

VOICE: So Cooper is not on-site?

VOICE: No. They've gone back.

VOICE: Is Cooper -- are you going to use Cooper to get involved in this test you're proposing for looking at the [inaudible] cycle water?

VOICE: We've talked to them about the theory and we'll collect data and counsel with them as necessary.

VOICE: George is now here from Region II. Which sensors are remaining in the diesel? I'm looking for why do you believe that it would be okay to place that diesel back in service in its present condition? Are there any suspect sensors remaining installed?

VOICE: There are no suspect sensors remaining at all in the diesel.

VOICE: How have you ruled out the possibility that air quality, poor air quality may have caused the problem?

VOICE: [Inaudible] air quality both for normally and when the team was here, they asked us to test the air

1 quality and we tested it.

2 VOICE: Okay. That test includes oil, moisture

3 and [inaudible?]

4 VOICE: That includes moisture and looking at the

5 filter.

6 VOICE: How often are those filters changed?

7 VOICE: The overhaul period.

8 VOICE: Which is what?

9 VOICE: Eighteen months in our particular case.

10 VOICE: So they're changed out just before they

11 start the diesel back, when you start [inaudible] the

12 testing?

13 VOICE: Well, you go ahead and you -- as part of

14 the tear-down, as part of that procedure, you change it out,

15 you pull it and you look and see if you've accumulated any

16 dirt and grime and stuff on that filter, and the filters

17 would come out very clean.

18 VOICE: So you were confident, based upon tests

19 done, that the quality of the air is now satisfactory and

20 you do not believe that was the root cause of the problem

21 before.

22 VOICE: That is correct.

23 VOICE: This is Al Chaffee. We have not yet

24 reviewed the data that the licensee has given on the air

25 quality.

05-203-D-G

OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: Nuclear Regulatory Commission

Title: Telephone Conference: IIT, Licensee, Region II (CLOSED)

Docket No.

LOCATION: Bethesda, Maryland

DATE: Friday, April 6, 1990

PAGES: 1 - 34

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1 UNITED STATES OF AMERICA

2 NUCLEAR REGULATORY COMMISSION

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5 In the Matter of: :

6 Telephone Conference: IIT, :

7 Licensee, Region II :

8 (CLOSED) :

9 - - - - - - - - - - - - - - - - - -X

10

11 Nuclear Regulatory Commission

12 Operations Center

13 7735 Old Georgetown Road

14 Bethesda, Maryland

15 Friday, April 6, 1990

16

17 The above-entitled matter commenced at 10:12

18 o'clock a.m., when were present:

19

20 Alfred Chaffee, Incident Investigation Team Leader

21 Ken Brockman, NRC Region II

22 Rick Kendall, NRC

23 George Bockhold, Vogtle

24 Lewis Ward, Vogtle

25

1 when the work order was closed, in comparison to when the
2 calibration itself was done. So, I'm sure that caused some
3 confusion. And some of the other words there were the job
4 got changed and assigned to a different person for a period
5 of time, and he started to use different words.
6 So, why don't you telecopy what you want us to
7 fill in? We'll give it to Mark Briney, and Mark Briney will
8 fill that in and supply any information that way.
9 MR. KENDALL: Okay. That sounds great, and we
10 realize it's going to take a couple of days, probably, to do
11 it.
12 MR. BOCKHOLD: Okay?
13 MR. KENDALL: Fantastic.
14 MR. CHAFFEE: Okay. Then let's go on to the
15 diesel generators themselves.
16 Maybe the first thing we should do is talk about
17 this dew point situation and what you guys believe with
18 regard to that, and then I guess -- I thought we'd go in and
19 talk a little bit about what you found on the testing and
20 where you're going with the testing.
21 MR. BOCKHOLD: Okay. On the dew point situation,
22 yesterday afternoon it came to my attention that on the 29th
23 of March we had run a test, and the test on the dew point
24 was unsatisfactory. So, you know, we had some concern about
25 why the test on the A Diesel was unsatisfactory on the 29th,

1 and we're pulling in together a bunch of information.

2 At this point -- and this is speculation on my

3 part -- the evidence is tending to point to a bad

4 instrument, a bad dew-point sensor instrument, and we only

5 have one onsite, and we're getting another one, and other

6 than that, you can speculate seven different dozen ways on

7 this thing, but that's what the evidence is starting to

8 point to, because when we test air at similar conditions, it

9 all appears to be higher right now. Okay?

10 And it's at a significantly different condition,

11 like our instrument air in the turbine building. The

12 instrument does appear to work correctly, but at the diesel

13 temperature pressure dew point, the instrument may not be

14 working correctly.

15 MR. KENDALL: This is a test instrument.

16 MR. BOCKHOLD: So, basically, what happened is we

17 got this information; put the jacket water test, basically,

18 on hold until we could determine what we had; and what we

19 did in the meantime is that the appropriate procedure that

20 the vendors and our experts tell us to use if you have a

21 higher dew point in the diesel storage tanks is basically to

22 do a feed-and-bleed on the tank, and over a day or so, the

23 air will clean up to -- the dew point will clean up to the

24 required quality.

25 We started that. We checked the instrument lines

1 at one of the low points on the A Diesel. We also checked
2 the receiver by blowing it down. We haven't really gotten
3 any real water out of the receiver in blowing it down. The
4 comment was that we haven't seen any water coming out of the
5 bottom of the receiver, and there's a drain valve right --
6 there's a drain pipe right on the bottom. Further, the
7 diesel system engineer blew one of the drain points down on
8 -- and this is the A Diesel -- on the control air system,
9 and he didn't see any moisture come out of that line.
10 And we've run some other tests. Like we ran one
11 test quickly on the B Diesel. That showed bad. We're off
12 to run a test in a few minutes on one of Unit 2's diesels.
13 I expect that's going to show bad, because right at this
14 point, what I believe is that the instrument is bad.
15 In parallel with this, we're going to buy -- we're
16 going to find another instrument, so we can do this test
17 with a different instrument and see what that tells us.
18 In parallel with this, when the Cooper people get
19 in in the morning, which I guess is about 11 o'clock or so,
20 we'll give them a call. Given the indication that we have
21 on the air and the dew point that this instrument is
22 reading, we believe we can probably do the jacket-water test
23 without doing any damage to the control or instrument air
24 system.
25 We believe that even at an elevated dew point,

1 this is a long-term problem and not an immediate problem for
2 -- associated with the controls on the diesel. We believe
3 the diesels are operable right now, for example, and we
4 believe this is -- you wouldn't want to run like this for
5 months, if you had an elevated dew point.
6 So, we want to verify our belief with the Cooper
7 people. If we do verify our belief with the Cooper people,
8 we will go ahead and run the jacket-water test.
9 MR. CHAFFEE: When do you expect to have the new
10 instrument onsite to do the dew point?
11 MR. BOCKHOLD: Don't know. Maintenance was off
12 this morning to go find one from one of our fossil plants or
13 maybe even buy one in Augusta.
14 MR. CHAFFEE: Okay.
15 MR. BOCKHOLD: I'm not sure we can get exactly the
16 same instrument that we have. The one that we have has a
17 radioactive source in it, and you have to be, you know,
18 appropriately licensed to have this instrument.
19 So, we'll get something that's equivalent, but it
20 probably won't be exactly the same instrument.
21 MR. CHAFFEE: But you'll get one that meets
22 whatever the standards are for its readings being -- felt to
23 be correct, one that's calibrated and that's -- I don't know
24 if there's any industry standards in that area for that type
25 of test instrument or not.

71589.67449
IIT DOCUMENT NO. 206

05-206-F-

OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: Nuclear Regulatory Commission

Title: IIT Telephone Conference with Vogtle (CLOSED)

Docket No.

LOCATION: Bethesda, Maryland

DATE: Monday, April 9, 1990

PAGES: 1 - 15

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1 UNITED STATES OF AMERICA

2 NUCLEAR REGULATORY COMMISSION

3

4 - - - - - - - - - - - - - - - - -X

5 In the Matter of: :

6 INVESTIGATIVE INTERVIEW :

7 IIT Telephone Conference with :

8 Vogtle :

9 (CLOSED) :

10 - - - - - - - - - - - - - - - - -X

11

12 Nuclear Regulatory Commission

13 Operations Center

14 7735 Old Georgetown Road

15 Bethesda, Maryland

16 Monday, April 9, 1990

17

18 The above-entitled matter commenced at 9:02

19 o'clock a.m., when were present:

20

21 Alfred Chaffee, IIT Team Leader

22 Rick Kendall, NRC

23 William Lazarus, NRC

24 William Jones, NRC

25 Mike Jones, NRC

1 Lewis Ward, Vogtle

2 Skip Kitchens, Vogtle

3 Paul Kochery, Vogtle

4

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1 P R O C E E D I N G S

2 [9:02 a.m.]

3 MR. CHAFFEE: Region II probably won't try this,
4 would be my guess, because they're getting geared up for
5 this big meeting in the Region at 10 o'clock Eastern time in
6 Region II.

7 I guess, let me ask a question first: Any new
8 information on the diesel since we last talked, like the air
9 start or anything?

10 MR. KITCHENS: What kind of information, Al, are
11 you looking for?

12 MR. CHAFFEE: The last time we talked, we talked
13 about the results of a diesel test. So, I understand that,
14 basically, the temperature started at 163 degrees and then
15 it went down. I think it went down to 155.

16 MR. WARD: Just to bring Skip up to date -- he was
17 not on the Saturday morning phone call, Al.

18 Skip, Saturday, George basically presented the
19 results of the Friday afternoon -- or Friday testing.

20 MR. KITCHENS: Right.

21 MR. WARD: And at that point, all of the testing
22 had been completed. So, to my knowledge, nothing was in
23 progress at all this weekend.

24 MR. CHAFFEE: Right. The thing that was hanging,
25 I guess, was the air-quality issue. What I heard later that

1 day was that you had gotten a new instrument, but when you
2 did testing with it, you got negative numbers, which didn't
3 make any sense. So, you were going to go get another
4 instrument for measuring the air quality from Hatch, and I
5 don't know -- have you gotten that instrument and used it,
6 or are you still waiting for it?
7 MR. WARD: Getting one from V.C. Summer, and this
8 traceable instrument, I think, is identical or similar to
9 the one that we originally had and all of the numbers that
10 were reported Sunday were in the range of 36 to 45 degrees.
11 MR. CHAFFEE: With the exceptions criteria being
12 32 to 52, I think?
13 MR. WARD: Thirty-two to 50, I believe.
14 MR. CHAFFEE: Okay.
15 Did Region II just join us? Who just came on the
16 line?
17 MR. KITCHENS: Hey, let me give you the status
18 today on the dew points for all the diesel generators.
19 MR. CHAFFEE: Okay.
20 MR. KITCHENS: All eight of the receivers are in
21 spec except for one. The number two receiver on the Unit 2-
22 A diesel, dew point, the last taken, was 60.9 degrees
23 fahrenheit, which is about 11 degrees higher than
24 recommended by the manufacturer. So, we're blowing that
25 receiver down to get it in spec. All the others are within

1 the 32 to 50 range. In fact, they're all like 30 -- in the
2 30s and low 40s, except for one of the ones on Unit 2-A
3 diesel. One of the receivers on 2-A is 43.9 degrees
4 fahrenheit dew point, and the other was 60.9.
5 The readings all look reasonable, and we believe
6 them, you know, with this new instrumentation that we're
7 using.
8 MR. CHAFFEE: Okay. Well, the following question
9 to that is if you believe that 60.9-degree reading you have
10 on one of the Unit 2-A receivers, why is it different than
11 the others?
12 MR. KITCHENS: That's the one that was turned off?
13 MR. WARD: Yes, that's the one we turned off.
14 Yes.
15 MR. KITCHENS: Yes. I think that's the one that
16 we had the air -- we had the air dryer turned off on Friday?
17 MR. WARD: Yes.
18 MR. KITCHENS: Yes. We went out to look at these
19 on Friday, and one of them had its air dryer turned off. I
20 don't know if that's the reason, Al, but that would be --
21 possibly be a reason.
22 MR. CHAFFEE: Okay.
23 Well, then the follow-up question would be if the
24 air dryer was turned off for that one and that accounts for
25 why it was high, what's the history of these air dryers, you

1 know, stemming from the event? I realize I'm being real
2 inquisitive here. Is there any chance that you had your air
3 dryers off or any evidence to substantiate whether or not
4 there is any reoccurring problem there, or is this -- or do
5 you know that this air dryer being off is, basically, a one-
6 time occurrence?
7 MR. KITCHENS: I don't know. Our history -- you
8 know, we dug up the history -- I assumed they had shared it
9 with you -- from the last year, where we do these PMs. It
10 pretty much had passed on -- I don't have the history in
11 front of me for the Unit 2 one.
12 MR. CHAFFEE: Okay. I am going to make a
13 statement here. I'm not sure if it's true, but I don't
14 think we've seen or have been given the information on the
15 dryer performance. If I'm wrong, then disregard the
16 following:
17 Please provide us that information that addresses
18 the air-dryer performance on the, particularly, Unit 2 --
19 oh, I see. That's right. That was Unit 2 that had the
20 problem, not Unit 1-A. We really wanted the Unit 1.
21 MR. KITCHENS: Is what you need the actual dew
22 points measured during the PMs for, say, the past year?
23 MR. CHAFFEE: We just need the information that
24 shows us to what extent air poor quality might have had an
25 impact on the operation of the Unit 1-A diesel.

1 MR. KITCHENS: That's a pretty generic thing to
2 ask for, Al, and I don't know how to provide that to you. I
3 can just give you the PM results that show the dew points,
4 when we've taken them during the PMs, and we do a monthly PM
5 for them, and they basically have all -- maybe one or two
6 passed in the last -- since October of '88.
7 MR. CHAFFEE: You meant to say only one or two
8 failed. Right? Not passed. All but one or two passed? I
9 didn't hear you correctly.
10 MR. WARD: We had a couple of them fail is what he
11 intended to say.
12 MR. CHAFFEE: Okay. Well, maybe you can just give
13 us that table then. Give us a table of these surveillance
14 results over the past couple of years, and we can go from
15 there. In those cases where there has been a failure, then
16 what we would be interested in there is to know how long did
17 that condition exist. I guess it sounds like the answer
18 would be between surveillances.
19 And the other thing that we would be interested
20 in, as well, if you did have poor air quality for that
21 period of time, what impact, if any, would that have on the
22 diesels trip circuitry?
23 MR. KITCHENS: We haven't had poor air quality.
24 It's been within the -- you know, the recommended -- the
25 vendor's recommendation, pretty much for the last year. Up

1 until March 31st, when we reported a failure, which now we
2 don't really believe that it was a failure because of the
3 instrument, I only see one failure over the last 12 months
4 during a PM.
5 MR. CHAFFEE: You've got the data in front of you?
6 MR. KITCHENS: As a matter of fact, that one
7 failure, if I'm reading this right, was March 16, '89. I
8 don't have the data. I have a list of all the work orders
9 where we did it and which ones passed and which ones failed,
10 and you know, that's why we were thinking it might have been
11 an instrumentation problem. We have not had a problem,
12 really, with meeting the vendor recommendations for 32 to
13 50. You know, that's a vendor-recommended number that our
14 dryer should be able to meet.
15 MR. CHAFFEE: I see what you just said. You also
16 brought up another good point, which is that, you know, the
17 way you got into this thing here recently was you thought
18 you had bad air, but the instrument was bad.
19 MR. KITCHENS: Right. I guess I'm saying, as an
20 overview, I just went back a little over a year's worth and
21 asked for that history, and we have been doing the PMs and
22 we have routinely been.
23 MR. CHAFFEE: Okay.
24 MR. KITCHENS: I do not believe we have an air-
25 quality problem, unless there's one associated with the

1 vendor's recommendation.

2 MR. CHAFFEE: Okay.

3 MR. KITCHENS: I'd be glad to give you the -- I
4 can just have somebody look up the actual numbers from all
5 of these -- you know, what the actual dew-point numbers were
6 that were obtained for back in that period and, you know,
7 furnish that for you for the A-train diesel or for both of
8 them, whichever.

9 The only problem -- we did have one problem on a
10 B-train diesel. One of the air dryers -- we got a fail, a
11 78-degree number on March the 18th of '89, and we replaced
12 the dryer and fixed it. You know, we actually replaced it
13 with a new dryer, and it's passed since then, every time.
14 That's the B-train.

15 MR. KENDALL: Of Unit 1?

16 MR. KITCHENS: Yes.

17 MR. WARD: The other fact that ties in with that,
18 Al, is the filters on the inlet to the controlled air system
19 are replaced during the refueling overhauls, and those were
20 pulled this March -- early March, and the reports are they
21 were all in a as-new condition, did not show signs of having
22 been susceptible to any kind of dirty air.

23 MR. LAZARUS: This is Bill Lazarus. Al had to go
24 to another conference call. I'll fill in for him.

25 Rick, did you get what you needed?

EXHIBIT
10

FROM TELECOPY NUMBER (404) 554-5314

VERIFICATION NUMBER (404) 826-3175

EQUIPMENT: OMNIFAX G99

TELECOPY OPERATOR: Gloria W. Walker

SUPERVISOR: George Bockhold, Jr.

DATE: 4-6-90 TIME: 54

TELECOPY TO: C. K. McCoy

SOMOPCO (205) 877-

PAGES ATTACHED: 2 (NOT IN COVER SHEET)

THIS TELECOPY SENT FROM: George Bockhold, Jr.

DEPARTMENT: Management Staff EXT. NO.

VOGTLE ELECTRIC GENERATING PLANT
NUCLEAR OPERATIONS
ROUTE 2, BOX 1600
WAYNESBORO, GEORGIA 30830

SPECIAL INSTRUCTIONS:

EXHIBIT 28

45-40 ALM
Dist: WFK ✓
JES ✓
HMHL
JGA ✓
MWH
EMD
KRH ✓
CPS
NAC Rs

STATUS OF CORRECTIVE ACTIONS FOLLOWING

MARCH 20, 1990

SITE AREA EMERGENCY

On March 20, 1990, a site area emergency was declared due to a loss of offsite power concurrent with a loss of onsite emergency diesel generator capability. In accordance with VEGP procedures, an event review team has investigated the events leading up to and following the site area emergency. While the review team results are ~~considered preliminary~~ pending final management review and approval, the investigation is ~~essentially~~ complete. Those actions considered important for continued safe plant operation have been implemented. These include establishment of a management policy on control and operation of vehicles (see attached letter from George Bockhold to all site personnel); upgrading of emergency notification network communications (see attached letter from George Bockhold to all Emergency Directors and Communicators); complete retesting and calibration of both Unit 1 emergency diesel generator control systems; barricades to prevent unnecessary entry into plant switchyard areas; and communications of immediate corrective actions related to operations to licensed operators.

In addition, the event report also ~~includes~~ contains several longer-term recommendations which require additional management ~~review~~ and evaluation. These include the sequencing of outage activities; plant conditions during mid-loop operations; post-maintenance diesel functional testing; emergency notification system upgrades; changing diesel generator control logic; and evaluating the duties and responsibilities of the Emergency Director.

The most significant occurrence during the event of March 20, 1990, involved the failure of Diesel Generator (DG) 1A to remain ~~tested~~ running to support shutdown cooling. The event critique team, ~~consisting of~~ utilizing utility and vendor technical experts has investigated the DG failure and provided the following facts:

a. During bench testing, all three jacket water temperature switches were found to be set high during the DG maintenance inspection in early March 1990 (by approximately 6-10 degrees F above the setpoint). All three were adjusted downward using a calibration technique that may have differed from that previously used.

b. Following the March 20 event, all three switches were again bench tested. Switch TS 19110 was found to have a setpoint of 197 degrees F which was approximately 6 degrees F below its previous setting. Switch TS 19111 was found to have a setpoint of 199 degrees F which was approximately the same as the original setting. Switch TS 19112 was found to have a setpoint of 186 degrees F which was approximately 17 degrees F below the previous setting. ~~and~~ was readjusted. Switch TS 19112 also had a small leak ~~but~~ which was judged ~~to be~~ acceptable to support diagnostic engine tests and was reinstalled.

c. During the subsequent test run of the DG on March 30, one of the switches (TS 19111) tripped and would not reset, ~~which~~ and appeared to be an intermittent failure because it subsequently reset. This switch and the

EXHIBIT 32 PAGE 54 OF 147 PAGES

leaking switch (TS 19112) were replaced with new switches. All subsequent testing has been conducted with no additional problems.

d. The Unit 1 jacket water temperature switches have been recalibrated with the manufacturer's assistance to ensure a consistent calibration technique.

e. Subsequent testing indicated that the diesel annunicator indication of March 20, 1990 is reproduced on a high jacket water temperature trip.

Based on the above facts, the event review team concluded that the jacket water high temperature switches were the most probable cause of both trips on March 20, 1990.

The following actions are being implemented to ensure a high state of diesel reliability.

1. A test of the jacket water system temperature transient during engine starts is in progress. The purpose of this test is to determine the actual jacket water temperature at the switch locations with the engine in a normal standby lineup, and then followed by a series of starts without air rolling the engine to replicate the starts of March 20.

2. Operators are being trained prior to their next shift to ensure that they understand that an emergency reset will override the high jacket water temperature trip.

3. The undervoltage start feature of the Unit 1 DGs has been modified such that the non-essential engine trips are bypassed. This change will be implemented on Unit 2 prior to April 30, 1990.

4. GPC is evaluating the possibility of a design change and Technical Specification change to delete the jacket water high temperature trip as an essential engine trip.

5. Since March 20, 1990, GPC has performed numerous sensor calibrations (including jacket water temperatures), extensive logic testing, special pneumatic leak testing and air quality reverification, and multiple engine starts and runs under various conditions. Completion of these corrective actions justify GPC's determination that the DG's are operable.

GPC will continue to work with the Transamerica DeLaval Incorporated Owners Group to improve DG reliability. GPC will also review possible improvements to protective instrumentation and controls and any additional engine enhancements will be scheduled for refueling overhaul periods.

GPC will continue to work with the IIT and an independent lab to ~~determine~~ identify the cause of failure of the temperature and pressure switches currently under quarantine.

Georgia Power Company
333 Piedmont Avenue
Atlanta Georgia 30308
Telephone 404 526 3195

Mailing Address
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201
Telephone 205 868 5581

EXHIBIT M
6/23/93
LLR

COMMENTS

April 9, 1990

the southern electric system

W. G. Hairston, III
Senior Vice President
Nuclear Operations

ELV-01516
0012

Docket No. 50-424

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Atlanta, GA 30323
ATTN: Mr. S. D. Ebneter

Dear Mr. Ebneter:

VOGTLE ELECTRIC GENERATING PLANT
CONFIRMATION OF ACTION LETTER

On March 20, 1990, a site area emergency was declared due to a loss of offsite power concurrent with a loss of onsite emergency diesel generator capability. Following the event, GPC received a Confirmation of Action Letter dated March 23, 1990 concerning certain actions we were taking. We have reviewed the event team report and the appropriate corrective actions necessary for entry into Mode 2 have been accomplished. Therefore, we are requesting approval to return Unit 1 to Mode 2 and subsequent power operation. The following discussion provides justification for this request.

In accordance with Vogtle Electric Generating Plant procedures, an event review team has investigated the events leading up to and following the site area emergency. The event review team has presented the results of their review to management and those recommendations considered important for continued safe plant operation have been implemented. These include establishment of a management policy on control and operation of vehicles (see attached letter from George Bockhold to all site personnel); upgrading of emergency notification network communications (see attached letter from George Bockhold to all Emergency Directors and Communicators); complete retesting and calibration of both Unit 1 emergency diesel generator control systems; barricades to prevent unnecessary entry into plant switchyard areas; and communications of immediate corrective actions related to operations to licensed operators.

In addition, the event report also contains a number of longer-term recommendations which require additional management review and evaluation. These include the sequencing of outage activities; plant conditions permitted during mid-loop operations; post-maintenance diesel functional testing; emergency notification system upgrades; changing diesel generator control logic; and re-evaluating the duties and responsibilities of the Emergency Director.

EXHIBIT 28

The most significant occurrence during the event of March 20, 1990, involved the failure of Diesel Generator (DG) 1A to remain running to support shutdown cooling. The event critique team, utilizing utility and vendor technical experts has investigated the DG failure and provided the following facts:

a. During bench testing, all three jacket water temperature switches were found to be set high during the DG maintenance inspection in early March 1990 (by approximately 6-10 degrees F above the setpoint). All three were adjusted downward using a calibration technique that may have differed from that previously used.

b. Following the March 20 event, all three switches were again bench tested. Switch TS 19110 was found to have a setpoint of 197 degrees F which was approximately 6 degrees F below its previous setting. Switch TS 19111 was found to have a setpoint of 199 degrees F which was approximately the same as the original setting. Switch TS 19112 was found to have a setpoint of 186 degrees F which was approximately 17 degrees F below the previous setting and was readjusted. Switch TS 19112 also had a small leak which was judged to be acceptable to support diagnostic engine tests and was reinstalled.

c. During the subsequent test run of the DG on March 30, one of the switches (TS 19111) tripped and would not reset. This appeared to be an intermittent failure because it subsequently reset. This switch and the leaking switch (TS 19112) were replaced with new switches. All subsequent testing has been conducted with no additional problems.

d. The Unit 1 jacket water temperature switches have been recalibrated with the manufacturer's assistance to ensure a consistent calibration technique.

e. Subsequent testing indicated that the diesel annunicator indication of March 20, 1990 is reproduced on a high jacket water temperature trip.

Based on the above facts, the event review team concluded that the jacket water high temperature switches were the most probable cause of both trips on March 20, 1990.

U. S. Nuclear Regulatory Commission
Region II
ELV-01516
Page Three

The following actions are being implemented to ensure a high state of diesel reliability.

1. A test of the jacket water system temperature transient during engine starts was conducted. The purpose of this test was to determine the actual jacket water temperature at the switch locations with the engine in a normal standby lineup, and then followed by a series of starts without air rolling the engine to replicate the starts of March 20. The test showed that jacket water temperature at the switch location decreased from a standby temperature of 163 degrees F to approximately 156 degrees F and remained steady.

2. Operators are being trained prior to their next shift to ensure that they understand that an emergency reset will override the high jacket water temperature trip. Alarm response procedure will address emergency reset functions prior to Apr 30 1990

3. The undervoltage start feature of the Unit 1 DGs has been modified such that the non-essential engine trips are bypassed. However, alarms are still provided to inform the operators of off normal conditions. This change will be implemented on Unit 2 prior to April 30, 1990. however essential trips are not bypassed (SW, but air rolls pend)

4. GPC is evaluating the possibility of a design change and Technical Specification change to delete the jacket water high temperature trip as an essential engine trip.

5. GPC has reviewed air quality of the D/G air system including dewpoint control and has concluded that air quality is satisfactory. Initial reports of higher than expected dewpoints were later attributed to a faulty instrument. This was confirmed by internal inspection of one air receiver on April 6, 1990, periodic replacement of the contol air filters which showed no indication of corrosion and daily air receiver blowdowns with no significant water discharge.

ation

6. Since March 20, 1990, GPC has performed numerous sensor calibrations (including jacket water temperatures), extensive logic testing, special pneumatic leak testing, and multiple engine starts and runs under various conditions. Since March 20, the 1A DG has been started 18 times, and the 1B DG has been started 19 times. No failures or problems have occurred during any of these starts. In addition, an undervoltage start test without air roll was conducted on April 6, 1990 and the 1A D/G started and loaded properly. Completion of these corrective actions justify GPC's determination that the DG's are operable.

EXHIBIT 2E
PAGE 146 OF 147 PAGE(S)

[redacted]

GPC will continue to work with the Transamerica DeLaval Incorporated Owners Group to improve DG reliability. GPC will also review possible improvements to protective instrumentation and controls and any additional engine enhancements will be scheduled for refueling overhaul periods.

GPC will continue to work with the IIT and an independent lab to determine the cause of failure of the temperature and pressure switches currently under quarantine.

Based on the above discussion, we believe we have completed the appropriate corrective actions necessary to safely operate the unit. We request NRC approval to enter Mode 2 by close of business on Monday, April 9, 1990.

Should you have any questions, please inquire.

Sincerely,

W. G. Hairston, III

WGH,III/NJS/gm

Attachment

xc: Georgia Power Company
Mr. C. K. McCoy
Mr. G. Bockhold, Jr.
Mr. R. M. Odom
Mr. P. D. Rushton
NORMS

U. S. Nuclear Regulatory Commission
Document Control Desk
Mr. T. A. Reed, Licensing Project Manager, NRR
Mr. R. F. Aiello, Senior Resident Inspector, Vogtle

EXHIBIT 28
PAGE 147 OF 147 PAGE(S)

[redacted]

Georgia Power Company
333 Piedmont Avenue
Atlanta, Georgia 30308
Telephone 404 526 3195

Mailing Address
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201
Telephone 205 868 5581

April 9, 1990

W. G. Hairston, III
Senior Vice President
Nuclear Operations

ELV-01516
0012

Docket No. 50-424

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Atlanta, GA 30323
ATTN: Mr. S. D. Ebneter

Dear Mr. Ebneter:

VOGTLE ELECTRIC GENERATING PLANT
CONFIRMATION OF ACTION LETTER

On March 20, 1990, a site area emergency was declared due to a loss of offsite power concurrent with a loss of onsite emergency diesel generator capability. Following the event, GPC received a Confirmation of Action Letter dated March 23, 1990 concerning certain actions we were taking. We have reviewed the March 20th event and the appropriate corrective actions necessary for entry into Mode 2 have been accomplished. Therefore, we are requesting approval to return Unit 1 to Mode 2 and subsequent power operation. The following discussion provides justification for this request.

In accordance with Vogtle Electric Generating Plant procedures, an event review team has investigated the events leading up to and following the site area emergency. The event review team has presented the results of it's review to management and those recommendations considered important for continued safe plant operation have been implemented. These include establishment of a management policy on control and operation of vehicles (see attached letter from George Bockhold to site personnel); upgrading of emergency notification network communications (see attached letter from George Bockhold to Emergency Directors and Communicators); retesting and calibration of both Unit 1 emergency diesel generator control systems; temporary barricades to prevent unnecessary entry into low voltage switchyard areas; and communications of immediate corrective actions related to operations to licensed operators.

In addition, the event review team report also contains a number of longer-term recommendations which require additional management review and evaluation. These include the sequencing of outage activities; plant conditions during mid-loop operations; post-maintenance diesel functional testing; emergency notification system upgrades; changing diesel generator control logic; and re-evaluating the duties and responsibilities of the Emergency Director.

The most significant occurrence during the event of March 20, 1990, involved the failure of Diesel Generator (DG) 1A to remain running to support shutdown cooling. Georgia Power Company, utilizing utility and vendor technical experts has investigated the DG failure and has determined the following:

a. During bench testing, all three jacket water temperature switches were found to be set high during the DG maintenance inspection in early March 1990 (by approximately 6-10 degrees F above the setpoint). All three were adjusted downward using a calibration technique that may have differed from that previously used.

b. Following the March 20 event, all three switches were again bench tested. Switch TS 19110 was found to have a setpoint of 197 degrees F which was approximately 6 degrees F below its previous setting. Switch TS 19111 was found to have a setpoint of 199 degrees F which was approximately the same as the original setting. Switch TS 19112 was found to have a setpoint of 186 degrees F which was approximately 17 degrees F below the previous setting and was readjusted. Switch TS 19112 also had a small leak which was judged to be acceptable to support diagnostic engine tests and was reinstalled.

c. During the subsequent test run of the DG on March 30, one of the switches (TS 19111) tripped and would not reset. This appeared to be an intermittent failure because it subsequently reset. This switch and the leaking switch (TS 19112) were replaced with new switches. All subsequent testing has been conducted with no additional problems.

d. The Unit 1 jacket water temperature switches have been recalibrated with the manufacturer's assistance to ensure a consistent calibration technique.

e. Subsequent testing indicated that the diesel annunicator indication of March 20, 1990 is reproduced on a high jacket water temperature trip.

f. A test of the jacket water system temperature transient during engine starts was conducted. The purpose of this test was to determine the actual jacket water temperature at the switch locations with the engine in a normal standby lineup, and then followed by a series of starts without air rolling the engine to replicate the starts of March 20. The test showed that jacket water temperature at the switch location decreased from a standby temperature of 163 degrees F to approximately 156 degrees F and remained steady.

g. Since March 20, 1990, GPC has performed numerous sensor calibrations (including jacket water temperatures), extensive logic testing, special pneumatic leak testing, and multiple engine starts and runs under various conditions. Since March 20, the 1A DG has been started 18 times, and the 1B DG has been started 19 times. No failures or problems have occurred during any of these starts. In addition, an undervoltage start test without air roll was conducted on April 6, 1990 and the 1A D/G started and loaded properly.

Based on the above facts, we have concluded that the jacket water high temperature switches were the most probable cause of both trips on March 20, 1990.

In addition, the following actions have been or are being implemented to ensure a high state of diesel reliability.

1. Operators are being trained prior to their next shift to ensure that they understand that an emergency reset will override the high jacket water temperature trip. Alarm response procedures will be revised to address emergency reset functions prior to April 30, 1990.

2. The undervoltage start feature of the Unit 1 DGs has been modified such that the non-essential engine trips are bypassed. However, alarms are still provided to inform the operators of off normal conditions. (This change will be implemented on Unit 2 prior to April 30, 1990.)

3. GPC is evaluating the possibility of a design change and Technical Specification change to delete the jacket water high temperature trip as an essential engine trip.

4. GPC has reviewed air quality of the D/G air system including dewpoint control and has concluded that air quality is satisfactory. Initial reports of higher than expected dewpoints were later attributed to faulty instrumention. This was confirmed by internal inspection of one air receiver on April 6, 1990, the periodic replacement of the contol air filters last done in March, 1990 which showed no indication of corrosion and daily air receiver blowdowns with no significant water discharge.

5. Based on discussions with the NRC in Atlanta on April 9, 1990, GPC will finish reviewing the event review team's long term recommendations and will transmit a summary and schedule of the actions taken or to be taken to the NRC by May 15, 1990. The administrative procedures that specify control of vehicles in the perimeter area will also be revised by May 15.

6. GPC will continue to work with the IIT and an independent lab to evaluate the instruments currently under quarantine. Upon completion of the the lab test, calibration procedures will be revised as necessary to ensure consistent performance.

Completion of these investigations, reviews, tests and corrective actions justify GPC's determination that the DG's are operable. GPC will continue to work with the Transamerica DeLaval Incorporated Owners Group to improve DG reliability. GPC will also review possible improvements to protective instrumentation and controls.

Based on the above discussion, we have completed the appropriate corrective actions necessary to safely operate the unit. We request NRC approval to allow Unit 1 to return to operation.

Should you have any questions, please inquire.

Sincerely,

W. G. Hairston III

W. G. Hairston, III

WGH,III/NJS/gm

Attachment

xc: Georgia Power Company
Mr. C. K. McCoy
Mr. G. Bockhold, Jr.
Mr. R. M. Odom
Mr. P. D. Rushton
NORMS

U. S. Nuclear Regulatory Commission
Document Control Desk
Mr. T. A. Reed, Licensing Project Manager, NRR
Mr. R. F. Aiello, Senior Resident Inspector, Vogtle

71589.67449
IIT DOCUMENT NO. 233

233-F

OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: Nuclear Regulatory Commission

Title: IIT Teleconference with Licensee and Vogtle

Docket No.

LOCATION: Bethesda, Maryland

DATE: Wednesday, April 11, 1990

PAGES: 1 - 8

ANN RILEY & ASSOCIATES, LTD.
1612 K St. N.W., Suite 300
Washington, D.C. 20006
(202) 293-3950

1 UNITED STATES OF AMERICA

2 NUCLEAR REGULATORY COMMISSION

3

4 - - - - - - - - - - - - - - - - -X

5 In the Matter of: :

6 IIT Teleconference with :

7 Licensee and Vogtle :

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10 Nuclear Regulatory Commission

11 Operations Center

12 7735 Old Georgetown Road

13 Bethesda, Maryland

14 Wednesday, April 11, 1990

15

16 The above-entitled matter commenced at 10:03

17 o'clock a.m., when were present:

18

19 Alfred Chaffee, IIT Team Leader

20 Rick Kendall, NRC

21 Ken Burr, Vogtle

22 George Bockhold, Vogtle

23 John Aufdenkampe, Vogtle

24

25

1 7836.

2 MR. KENDALL: Okay. I'll give you a call when

3 this is finished.

4 MR. CHAFFEE: Okay.

5 MR. BOCKHOLD: Hey, Al, this is George Bockhold.

6 MR. CHAFFEE: Hi, George.

7 MR. BOCKHOLD: On one of your questions yesterday

8 and what we faxed up to you and you said you just received

9 on the air receiver dew point measurements --

10 MR. CHAFFEE: Right.

11 MR. BOCKHOLD: I really don't have good data prior

12 to the last date shown on that chart there, and we had been

13 working on our PM program, and we really don't have

14 consistent data earlier on on the diesel. We've looked at

15 that, but that does not -- we believe, in fact, the air

16 quality of the diesel was basically satisfactory.

17 We did have one of the air dryers out for some

18 maintenance during that period of time, also, earlier on, in

19 '88, and that kind of stuff, but the key things about the

20 satisfactory quality of air is associated with the fact that

21 the normal receiver is at roughly 250 pounds, and the air

22 pressure is reduced to 60 pounds. That reduces the dew

23 point about 30 degrees, and -- going to the control system.

24 So, given the fact that the room is heated and the room

25 pretty much stays at a constant temperature -- it will vary

1 some; it's not air conditioned -- and the fact that we blow
2 down the receiver on, basically, a daily basis, even if the
3 air in the receivers was saturated with water, we'd get a
4 30-degree decrease in dew points for the control air, would
5 not be moist air.
6 Also, we, at each of the overall periods, have
7 inspected the control air filters, and they have been
8 essentially like new. We didn't see any rusting or
9 corrosion products in those filters. And also, we inspected
10 the one air receiver, and we only saw a very light corrosion
11 around the wells and some minor oil in the bottom, and none
12 of that really got to the control air.
13 So, we think -- we believe we still have
14 satisfactory air ever since startup on these machines, but
15 our PM history is not as good in the '88 timeframe, because
16 we added some PM program at that particular point in time.
17 MR. CHAFFEE: Okay.
18 Okay. I understand.
19 Okay. I understand, from talking to Warren, that
20 the discussion he had yesterday with several people at your
21 site was very helpful.
22 MR. AUFDENKAMPE: You have to pass on to Warren
23 that it was educational both ways.
24 MR. CHAFFEE: Okay.
25 MR. AUFDENKAMPE: But it was lengthy.

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10 Transcript of audiotape No. 40,
11 transcribed by Connie L. Lucas, Certified Court
12 Reporter and Notary Public.
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BROWN REPORTING, INC.
1100 SPRING STREET, SUITE 750
ATLANTA, GEORGIA 30309
(404) 876-8979

1 And so I had asked some of the engineers
2 to check into that and see if that was on unit 1's
3 or unit 2's diesel and so forth. Some of that
4 information has come back. And I know -- I think
5 also -- I think the team, IIT Team, has asked for
6 some specific requests in that area. But who has
7 done -- who has done this review that has drawn
8 these conclusions?
9 BOCKHOLD: The 1-A diesel, the I and C
10 information that we have for the past year basically
11 shows that there have only been short periods of
12 time where air quality was (inaudible).
13 KITCHENS: Again, yesterday we talked
14 about (inaudible). 1-A diesel for the past year,
15 all the PM, we missed two months in the earlier
16 year. Starting last March passed all the
17 (inaudible). One of the times was March 31st
18 (inaudible). The other one it was a little too
19 cold. We don't have -- when we do PM, we're very
20 regular for the last year and have not had any
21 problems. We had to replace one air dryer on unit
22 2, I think.
23 MOSBAUGH: Unit 1-A diesel refrigeration
24 compressor was out of service for a year or so
25 according to one of the --

1 KITCHENS: I only went back for one year,
2 I didn't go back three or four or five years. For
3 the last year they have not been out of service and
4 they have passed thereon. There has been some
5 corrective maintenance which (inaudible).
6 BOCKHOLD: I'd like to get the
7 information if 1-A was out of service a year because
8 that's not what we have. Okay. That's not
9 information we have. We note that for the recent
10 past there has not been an air quality problem.
11 Further, we note that when people went into the
12 tank, okay, there was not a problem; but then it was
13 further said that if you blow down the air receivers
14 basically daily, it should not be of significance to
15 the control system. But in further review I'd like
16 to find that information.
17 MALE VOICE: (Inaudible).
18 MOSBAUGH: I think this was the
19 refrigeration compressor.
20 KITCHENS: (Inaudible) one of the
21 compressors was out for a long time. But that still
22 doesn't affect (inaudible).
23 BOCKHOLD: Well, I'd like to know if it
24 was the duration, what time was.
25 MALE VOICE: (Inaudible).

A-11-90

[TAPE 41, SIDE 1:]

VOICE: Let's get started, please. (Inaudible) containment and (inaudible).

VOICE: (Inaudible).

VOICE: All that's (inaudible) and the (inaudible). 455 (inaudible).

VOICE: Okay. Critical path remains (inaudible) and containment closeout.

(Inaudible) those four entries. We've added some more water to the RWSP yesterday evening and have been running the (inaudible) tests. I don't have the exact status, but (inaudible).

VOICE: (Inaudible).

VOICE: All right.

VOICE: (Inaudible).

VOICE: (Inaudible) the other surveillances, I believe, we're all going forward.

VOICE: Let's talk about that last thing (inaudible).

VOICE: (Inaudible).

VOICE: (Inaudible).

VOICE: 14 (inaudible) is not yet turned off, but will be as soon as

EXHIBIT 66

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to get to look at this thing?

VOICE: I think we ought to give the people, you know, a reasonable amount of time.

VOICE: These can be distributed now.

VOICE: These can be distributed now and give people a little bit of time.

VOICE: I'll do that. I can't do (inaudible).

Am VOICE: Well, we had our air quality meeting.

JGA VOICE: It's not a problem?

Am VOICE: It's not a problem. The FSAR says that we responded to a generic letter with --

Beacher VOICE: There was a Unit 1 train A diesel (inaudible) dewpoint measurement and I'm going to telecopy that (inaudible) and also to (inaudible).

air receiver

to Chatter, Brakenor

Ward & Ken Burr.

JGA VOICE: Okay.

Ken VOICE: Is this a new request?

Beacher VOICE: Excuse me?

JGA VOICE: Is this a new request?

Beacher VOICE: No, this was something

UNIT 1 A TRAIN DIESEL GENERATOR

AIR RECEIVER DEW POINT MEASUREMENTS

M&O NO.	DATE	RECEIVER KO1	RECEIVER KO2
19001651	4/8/90	34°F	33°F
19001513	3/31/90	80°F	60°F
19000899	3/12/90	48°F	45°F
	3/9/90	61°F	66°F
19000465	2/11/90	37°F	37°F
18906445	1/18/90	44°F	44°F
18906139	12/19/89	40°F	37°F
18905007	11/20/89	40°F	47°F
18904442	10/20/89	38°F	45°F
18903652	9/27/89	45°F	45°F
18903214	8/24/89	37°F	35°F
18902798	7/30/89	45°F	49°F
18902453	6/28/89	48°F	KO2 was tagged out for maintenance
18900984	3/16/89	22.6°F	20.1°F

PRELIMINARY DRAFT 7/2/94

BEGIN TAPE NO. 58, SIDE A

Swartzwelder: [Inaudible] plant equipment operator.

Voice: Hold on.

Swartzwelder: Thank you.

Mosbaugh: [Inaudible.]

Voice: It's probably the best one he's got, the handwritten one?

Mosbaugh: Yeah. These aren't transcript type. This is what [inaudible]

Swartzwelder: It has to be what he had doing his LER, I think. I believe that's what he had.

Mosbaugh: Yeah. This is because of the LER we're getting ready to submit.

Voice: Okay.

Swartzwelder: Mr. Hairston

Voice: Yeah.

Swartzwelder: This is Jim Swartzwelder.

Voice: Hey, Jim.

Swartzwelder: Allen came in my office. He's here with me. He says that you'd like to talk to Duane DeLoach or Slim Whitman.

Mosbaugh: Is Bill Shipman in with you?

Hairston: No. He's down on another phone downstairs.

Mosbaugh: Okay.

Hairston: We --

Swartzwelder: I have Duane here.

Hairston: Was Duane one of the operators that was in the --

Swartzwelder: That went to the diesel.

McCoy: We need to be sure that we know the number of starts after we've completed the comprehensive control test program.

Aufdenkampe: I do have people right now going out through -- my people going out through the RO's log.

Bockhold: From my numbers that I presented at the, at the conference, they were verified correct by Jimmy Paul Cash who went through the operators' logs.

McCoy: We ought to use those numbers.

Bockhold: Okay. So we'll say greater than those numbers that were used in the conference.

McCoy: Right. And those, um, and those numbers you used in the conference were after they had completed the comprehensive test of the control system on each diesel?

Bockhold: That is correct. Those numbers were not before that time.

Stringfellow: Are we going to say -- I just want to make sure I'm clear -- are we going to say "Since 3/20/90, DG1A and DG1B have been subjected to a comprehensive test program?" Or do we want to say that kind of stuff, or do we want to just say --

Bockhold: Yes, you can say that.

McCoy: That's pretty clear.

Voice: [Inaudible.]

Mosbaugh: [Side conversation with Aufdenkampe.] Gotta look at those logs, friend. They ain't done it.

Voice: Right.

Voice: [Inaudible.]

Aufdenkampe: [Side conversation.] [Inaudible.] Is the operator downstairs?

Williams: [Inaudible.]

[Aufdenkampe Calls Home.]

Aufdenkampe: Hello. What are you guys doing? Is your Mom there? I've not left yet. It will probably be a half-hour before I can get out of here. Anything going on?

[Inaudible conversation. JGA speaks with his daughter, Sarah.]

[Walking Sounds. Break in taping.]

Shipman: -- and that they should not be included because they were part of the return to service of the diesel coming out of the overhaul, and this count only included those starts after we had calibrated all these sensors. John, you heard George Bockhold's logic.

Mosbaugh: Yes, so, but what I'm is, let's say we had ten starts on the machine between the 20th and the time we declared it operable or completed our logic testing, you know, and then interspersed in there on the -- maybe the third, fifth and sixth starts --

Shipman: We would discount any failures.

Mosbaugh: -- were failures, you know, then I think what we're saying is we would start counting at the ten point, if that was an example.

Shipman: Right. We would discount those starts prior to when we did that calibration.

Mosbaugh: So we want to start it after we completed the logic, the logic test?

1 Shipman: The -- what I understood that George had done was started
2 after we completed the recalibration of all the
3 instrumentation. That's when we ought to have, you know,
4 as far as our instrumentation is concerned, that's when
5 we ought to have had valid set points and good
6 instruments. That's what we're trying to show, that the
7 unit starts -- when that's been done correctly, that the
8 unit starts reliably, starts and runs reliably. Does
9 that make sense, and can we get to that data?
10 Mosbaugh: We have the data. The question is, is what's that date
11 and time? [LAUGHING] What -- what, as soon as we get to
12 the point at which we want to start counting, we can get
13 the count pretty quick.
14 Aufdenkampe: Well, not pretty quick, but --
15 Shipman: How do we get to that point, Al?
16 Mosbaugh: Well, you know what? I can tell you that the thing we
17 did is we went in and, you know, we changed out a bunch
18 of switches, we went in and then did logic tests, we went
19 into the undervoltage tests, and then we finally ran the
20 surveillance on the machine, and at that point that we
21 completed the surveillance on the machine, we called the
22 machine operable. You know, . . . so the question again
23 comes back to at what point are we going to start
24 counting?
25 Shipman: Well, George said he started counting after we had
26 completed the instrumentation recalibration, okay? So
27 that's one point we can start counting, if we can define

1 that point. I can't define it. I don't, you know, I
2 don't know when that was. Somebody generated this set of
3 data that generated the numbers 18 and 19 to George on
4 that basis.
5 Aufdenkampe: That was Jimmy Paul Cash.
6 Mosbaugh: Jimmy Paul did. Let me go downstairs and talk to Jimmy
7 Paul and see --
8 Aufdenkampe: Okay. I'm trying to get Swartzwelder up here.
9 Mosbaugh: Swartzwelder? Okay.
10 Shipman: Okay. One other thing we could do, Al, you know, saying
11 we still continue to have problems with trying to define
12 this. We could back away from this completely, and
13 change this to say how many starts we've had since we
14 declared the diesel operable.
15 Mosbaugh: Yes, that --
16 Aufdenkampe: That would be more --
17 Mosbaugh: That's easy to define. We just go into OPS LCO's and
18 find out when they cleared the LCO and we'll know that
19 point real easy. That's an easy point to find. I think
20 the other point we'll have to find by talking to Jimmy
21 Paul Cash.
22 Shipman: The problem with that is that that number is going to be
23 significantly less, I think, than what George told
24 Mr. Ebneter, and, you know, it's going to create a
25 selling job for me, I think, but -- if that's the only
26 way we can tell a valid story that, you know, we can
27 defend if somebody calls Allen Mosbaugh, Bill Shipman and

1 John Aufdenkampe to testify, that's the story I want to
2 tell.
3 Mosbaugh: Well, I think -- you know, let me -- let me, let me try
4 some logic here. We have these two failures, and now
5 John says there are three failures. You know, we're kind
6 of saying, hey, those are not valid failures, you know,
7 because we were coming out of maintenance on the machine
8 and had yet to declare it operable. You know, that's how
9 and why we're discounting those failures.
10 Shipman: So we had yet to, to, to determine that coming out of an
11 outage on the machine, we had to go and basically do a
12 complete set of recalibrations of the instruments. That
13 was the logic that George used, not that, not that we
14 were declaring it operable, because we obviously hadn't
15 declared it operable.
16 Mosbaugh: Well, one of those failures was when we were doing the,
17 you know, an eight-hour loaded run. I would sure hope to
18 hell think that we had calibrated the instruments before
19 we did an eight-hour loaded run.
20 Shipman: Well, not according to George. We hadn't recognized the
21 need to go back and redo all those things. Is that not
22 what he said John Aufdenkampe?
23 Aufdenkampe: That's what I understood.
24 Mosbaugh: I'm just thinking from the standpoint of testing logic.
25 You know, you're going to do an eight-hour loaded run on
26 the machine, you know, obviously the component testing
27 ought to be done at that point.

1 Shipman: Well obv . . . , you know, on 1A obviously we thought we
2 had done everything we needed when we returned it to
3 service.
4 Aufdenkampe: It was operable.
5 Mosbaugh: Yeah. It was declared operable.
6 Shipman: We found out that we hadn't, and George is saying, oh,
7 oh, hey, gang, from the time we realized that 1A or 1B,
8 we had to do a complete recalibration and make sure we
9 had our facts together on all the instruments, we had
10 many many starts. I'm trying to, I'm trying to defend
11 George and --
12 Aufdenkampe: Well, you know, the bottom line is on the B diesel, we
13 had done major maintenance on it. We were in the process
14 of testing to, making sure it was working right. During
15 that testing process, we had it fail apparently three
16 times. Once we got all the bugs worked out of it --
17 since the point we got all the bugs worked out of it that
18 we've had -- we had -- and I'm kind of guessing, but uh,
19 27 starts, because I don't know where the three failures
20 are in the sequence of 27 starts, but we had X number of
21 starts. And George's argument to that is, after we got
22 all the bugs worked out, we had 18 starts.
23 Shipman: What he's trying to do is he's trying to show by data
24 that once you get the bugs worked out, like you say,
25 John, the diesel works fine.
26 Aufdenkampe: That's right. And that's regardless of the point of
27 declaration of operability or not.

1 Shipman: Fine. Right.

2 Aufdenkampe: You know, I think what we discussed on how to handle
3 those, the number of actual diesel starts, how we
4 discussed that before, I think we ought to just leave it
5 at that.

6 Shipman: Just say at least 18 times each, huh?

7 Aufdenkampe: Yeah.

8 Shipman: Okay.

9 Aufdenkampe: I mean, that, that, that -- somebody has gone and
10 validated that data, and that's what George presented.
11 The data that's been offered to us does not bring into
12 question that data.

13 Shipman: Okay.

14 Aufdenkampe: It tends to support that data. Would you take exception
15 to that Allen?

16 Shipman: We're going to go with that. Jack Stringfellow's just
17 grinning from ear to ear.

18 Aufdenkampe: The only issue is, we can't let people be misled, to
19 think that there were not failures until we started doing
20 that count.

21 Shipman: And we say that -- we say "After the 3-20-90 event, that
22 the control system with both engines have been subjected
23 to the comprehensive test program. Subsequent to this
24 test program, diesel generator 1A and 1B have been
25 started at least 18 times each, and no failures or
26 problems have occurred during any of these starts."

1 Mosbaugh: When you read it that way to me, Bill, when you talk
2 about the comprehensive test program, you know, I kind of
3 set the philosophy for that down here, is that we would
4 have a test program to, you know, determine root cause
5 and restore operability, and, uh, you know, that kind of
6 sounds like what I talked about down here on our diesel
7 test program, and it sounds like that is kind of
8 establishing the starting point, you know, at least at
9 the point in time after which we did the UV testing.
10 Shipman: Let me add one more additional fact in here that I think
11 will help us as we struggle with this to make sure we're
12 not trying to mislead somebody, at least the people we
13 most want not to mislead, and that's the Region II folks
14 and IIT team. Since we started discussing this issue,
15 some half hour ago or hour ago, whenever it was. Pat,
16 since we had an issue with this, not Pat, but Ken [McCoy]
17 went and called Ken Brockman --
18 Voice: Yeah.
19 Shipman: -- and talked to him about, you know, the numbers and
20 what the basis of the number was as George Bockhold
21 described it, and asked Ken if he understood that, you
22 know, and if they had understood that in Atlanta on that
23 basis, and Ken said, "Yes, absolutely we did, and also
24 the ITT team understands that."
25 Aufdenkampe: There's no question, I think, that the IIT team
26 understands that.

1 Shipman: Which is the basis, as well. So from that sense, you
2 know, the people we're trying to tell understand the
3 basis for the number George presented, and we really
4 aren't changing George's number.
5 Aufdenkampe: Jim Swartzwelder just walked in, too. He's going to help
6 shed light on various things.
7 Shipman: Various things.
8 Aufdenkampe: Because I'm not sure I can answer --
9 Swartzwelder: Other things he doesn't want to shed any light on.
10 Shipman: Things he doesn't want to be quoted on, right?
11 Aufdenkampe: Other things that I'm in the dark --
12 Swartzwelder: That's correct.

1 Aufdenkampe: That I'm in the dark on.

2 Voice: [Inaudible]

3 Voice: And I would never hear.

4 Shipman: Well, I don't know if --

5 Aufdenkampe: I want to go over Pat McDonald's comments with him.

6 Shipman: Okay.

7 Aufdenkampe: Well --

8 Shipman: You want to run back through them?

9 Aufdenkampe: Yeah. Let's just start at the beginning and -- because
10 you can go ahead and read him what you, how you rewrote
11 what the operator said.

12 Shipman: Okay. Well, let me start at the beginning with Pat's
13 comments --

14 Mosbaugh: Do you have it?

15 Shipman: -- and the first one on the abstract --

16 Voice: Not to look at.

17 Shipman: -- Jim, is very straightforward. Pat --

18 Voice: Try to look at my copy.

19 Shipman: -- picked up the fact that we called it the core instead
20 of the RCS. We got that corrected, John agreed that
21 we're really talking about the RCS.

22 Voice: Yes. That comment was discussed in there.

23 Swartzwelder: Well, we discussed it with respect to the analysis of the
24 event.

25 Voice: Yeah. We fixed it there.

26 Voice: Yes.

27 Voice: Well, we didn't fix it here.

1 Swartzwelder: Okay. That's good. Yeah, that's good.

2 Aufdenkampe: Tell him we'll give him an 'at-a-boy for that. Tell Pat
3 we'll give him an 'at-a-boy for that one.

4 Shipman: That's what I told George a while ago. That's what we
5 keep him around here for. The second place, Jim, that
6 Pat had a comment was on Description of Event, fourth
7 from the last paragraph, and I think this is one that we
8 didn't settle on a while ago, John, that we have to do
9 something with. The statement reads like this, and it's
10 really the last paragraph before this, and this one, too,
11 I think: "The only alarms noted by the control room
12 operator assigned to diesel generator operation were lube
13 oil pressure sensor malfunctioning, fuel oil level
14 high/low alarm." Pat's concern is we open an issue
15 there, and nowhere in the LER do we ever close it by
16 saying these were invalid alarms, they were sensor
17 failures, they were normal for the condition, you know.

18 Swartzwelder: Where is that from? Bill, what paragraph are you in?

19 Shipman: I'm in the fourth from the last, the bottom of the fourth
20 from the last paragraph under Description of Events.
21 There is also a question at the bottom of the third
22 paragraph from the last one, the third paragraph from the
23 last.

24 Swartzwelder: Wait a minute. I think I see where you are now. Hold
25 on.

26 [Pause]

1 Voice: [Inaudible.]

2 Mosbaugh: I can't find enough starts so far.

3 Aufdenkampe: Can you find 18?

4 Mosbaugh: No. Not even close . . .

5 Aufdenkampe: Odom got this.

6 Mosbaugh: I'm not sure when he started.

7 Aufdenkampe: He started March 20th.

8 Mosbaugh: Oh, sure, sure, if you start March 20th. But, their
9 words say it completed a comprehensive test program.

10 Aufdenkampe: George said the comprehensive test program ended after
11 the third trip.

12 Mosbaugh: Well, that's bullshit. The under-voltage testing and all
13 that is all part of the comprehensive -- certainly the
14 under-voltage testing is part of the comprehensive test
15 program, right?

16 Aufdenkampe: On Unit 2? On Unit B?

17 Mosbaugh: On the B unit, the under-voltage testing is certainly
18 part of the comprehensive test program.

19 Aufdenkampe: I don't know, Allen.

20 Mosbaugh: Well, hell, it was part of the test program that we put
21 in writing in the little schedule we gave to the IIT.

22 Aufdenkampe: I personally don't think it matters whether we put in 18
23 or 40.

24 Mosbaugh: I think it personally matters a hell of a lot because you
25 can't put false information in written correspondence to
26 the NRC.

1 Aufdenkampe: Well, in the -- well, I agree with that one. The reason
2 I don't think it matters is because, regardless of how we
3 put it in there, when they come and ask us questions
4 about it, we'll tell them this is what our basis for it
5 was. This is why we get 18. If they interpret it
6 differently, we're sorry. We'll send a rev out. You,
7 you don't agree with me on that.
8 Mosbaugh: I'm having trouble counting starts. I can't find very
9 many starts.
10 Aufdenkampe: And I'm not talking wrong or right, [inaudible] I'm just
11 talking practical. The practical side of it is that
12 that's what will happen.
13 Mosbaugh: I can't find enough starts.
14 Aufdenkampe: Its just like, you know.
15 Mosbaugh: I'm really having trouble finding starts, and maybe they
16 are not all logged here because --
17 **[Marginalia: "Tom Webb & Odom was working on a list of starts."]**
18 Aufdenkampe: They are all logged there.
19 Mosbaugh: They are all logged? There's Jimmy.
20 Cash: [Inaudible.] I went through the log book page by page.
21 Mosbaugh: When did you start? Where did you start at?
22 Cash: When did I start what?
23 Mosbaugh: You've got the information --
24 Aufdenkampe: You told George about the failures, right? You gave him
25 failures as well as valid starts.
26 Cash: I gave him every one that we -- every start that we have
27 done.

1 Aufdenkampe: You took one, it started, it failed. Two, it started and
2 passed. Three, it started and failed. Four, started and
3 passed. Is that how you gave it to him, or did you just
4 give him totals.
5 Cash: Totals.
6 Aufdenkampe: You told him there were 20 valid starts. Are there 20
7 starts, three failures?
8 Cash: I'm not sure if I found the failures or not.
9 Aufdenkampe: George was aware of the failures is what he told Shipman
10 on the phone.
11 Mosbaugh: The information George presented when he was in Atlanta -
12 -
13 Cash: Right.
14 Mosbaugh: -- okay, --
15 Cash: Right.
16 Mosbaugh: -- you got some information together for him.
17 Cash: Right.
18 Mosbaugh: When did you start counting and what did you count?
19 Cash: 3-20.
20 Mosbaugh: You started on 3-20?
21 Cash: Right. For 1A diesel, the total numbers included, the
22 three maintenance starts that we did the night of 3-20.
23 Mosbaugh: Okay.
24 Cash: Out of service, I can't count.
25 Mosbaugh: Okay. And for the B machine --
26 Cash: Everything -- well, it was out of service then.
27 Mosbaugh: Again, every start from the very beginning?

1 Cash: Right. [Inaudible]

2 Mosbaugh: Okay.

3 Aufdenkampe: So, you know.

4 Mosbaugh: And so as of that date and for that presentation, then,

5 those were the --

6 Cash: But not as of the date now.

7 Mosbaugh: Yeah. Those were the 18 and 19 as of the date that

8 George presented it.

9 Cash: Right.

10 Mosbaugh: Okay. Some of those starts resulted in a failure.

11 Aufdenkampe: You didn't count the failure, though.

12 Cash: Uh-uh.

13 Aufdenkampe: The bottom line, Allen, is what we wrote in this LER just

14 now, the comprehensive, the comprehensive test program is

15 not defined, but basically you have to assume that if

16 George, and George told Shipman that it started after the

17 third failure. Now, if you disagree with that --

18 Cash: The third failure?

19 Voice: The third failure?

20 Aufdenkampe: The third failure.

21 Mosbaugh: I'm not agreeing or disagreeing with anyone. I'm just

22 trying to find out what's been done. It's . . .

23 Aufdenkampe: Well, that's where the numbers, that's where the numbers

24 come from.

25 Cash: . . . failures . . .

26 Mosbaugh: It sounds like Jimmy counted everything starting from the

27 20th.

1 Aufdenkampe: That's what Odom did.

2 Mosbaugh: Okay.

3 Cash: You guys come up with different numbers or something?

4 Mosbaugh: No. Odom counted up to present, and you counted up to

5 the --

6 Aufdenkampe: [Inaudible] because you counted up to present at the time

7 you did it.

8 Mosbaugh: Up to the 9th, or so, at the time you did it. But you --

9 Cash: What did Rick come up with?

10 Aufdenkampe: Twenty-seven and 38, or something like that.

11 Cash: We've been running the hell out of those diesels.

12 Mosbaugh: Oh, yeah.

13 Voice: Okay.

14 Cash: We're going to run them into the dirt is what we're going

15 to do. [Laughing.]

16 Voice: [Inaudible.]

17 Aufdenkampe: Where do you want to go with this Allen?

18 Mosbaugh: There's no place to go with it. We have already --

19 Hairston has already submitted a letter stating the same

20 thing the LER states. Right?

21 Aufdenkampe: Yeah.

22 Mosbaugh: All we did is state the same thing in this LER that

23 Hairston already stated in the letter.

24 Aufdenkampe: And George has an argument on why that's correct.

25 Mosbaugh: And that's the same thing that George presented at the

26 meeting.

1 Aufdenkampe: George has an argument on why that is correct, and Ken
2 McCoy called and said, you know, called Brockman, and
3 Brockman understood what that meant.
4 Voice: Do you want them?
5 [Pause.]
6 Aufdenkampe: Do you need anything from me before I leave?
7 Voice: [Inaudible.]
8 Mosbaugh: No.
9 Aufdenkampe: Do you want to buy another bunch of bingo tickets?
10 Mosbaugh: I don't know how many I bought.
11 [Laughter.]
12 Mosbaugh: One? That's probably enough, isn't it? Enough to win,
13 right? Is that enough to win?
14 Aufdenkampe: I imagine that's really enough to win.
15 Mosbaugh: Okay.
16 [Break In Taping.]
17 Voice: [Inaudible] right now?
18 Voice: [Inaudible.]
19 Voice: Oh, okay.
20 Swartzwelder: Yeah. It is Saturday night and I'll even reconfirm that,
21 if they want me to.
22 Voice: No, that's okay.
23 Swartzwelder: All right.
24 Voice: Okay. Bye.
25 Swartzwelder: Bye-bye.
26 Mosbaugh: Not more INPO.
27 Swartzwelder: No. He just was wondering when [inaudible].

1 Voice: Same old . . .

2 Mosbaugh: How's the turbine test going? Have any idea?

3 Swartzwelder: Yes, they were -- when I came [inaudible], I was down in
4 [inaudible] and John's office. They were on their way to
5 100 RPM from 1800.

6 Mosbaugh: They did the 1800 test, and they excited, and they did a
7 couple percent of negative sequence, and had all of the
8 data is what I heard.

9 Swartzwelder: Yeah. I think the bulk of the testing actually -- the
10 testing -- I think they were just doing minor testing at
11 1800. The bulk of the testing is the ramp up with a max
12 negative.

13 Mosbaugh: Yeah. They had gone to like one -- two-and-a-half
14 percent negative sequence current, or something like
15 that, at 1800.

16 Swartzwelder: I thought they went to 5%.

17 Mosbaugh: Yeah. Well, when I talked to them last, they had done
18 two-and-a-half percent, and then I guess they were
19 ramping that up to like five percent, and then what do we
20 do? Then we come back to 100 and do five percent all the
21 way up, or something like that?

22 Swartzwelder: I'm not sure five percent is --

23 Mosbaugh: Or whatever the max is.

24 Swartzwelder: As specified by maximum, you know, excitation.

25 Voice: Okay.

26 Swartzwelder: And then you come up to like 1925.

27 Voice: [Inaudible.]

1 Mosbaugh: Then they go to 1950 or 1925 or something.

2 Swartzwelder: Right. And then they start the 1900 to 1700 to 1900 to
3 1700 to 1900, and then they give up. [Inaudible] look at
4 with that excitation.

5 Mosbaugh: Yeah. Okay.

6 Swartzwelder: And then we go [inaudible].

7 Mosbaugh: Good. Anything else?

8 Swartzwelder: It's really going to be 12 hours?

9 Mosbaugh: I don't know. Horton didn't think it would. Horton
10 thought they would --

11 Swartzwelder: I don't think they will, either.

12 Mosbaugh: Horton thought they'd get done quicker that way. If
13 they're into it, and now it looks like they're into it,
14 and, you know, most of the problems we had were just
15 problems with running this turbine. No, these weren't
16 really test problems; these were problems that we would
17 experience tomorrow when we tried to do the turbine if we
18 hadn't done the test.

19 Swartzwelder: Yeah. I think those [inaudible] minor incident is that
20 first [inaudible]. That was all --

21 Mosbaugh: The neutral over-current was what was, I think, a test
22 condition issue, but Kerstiens figured that out in a
23 heartbeat.

24 Swartzwelder: But, otherwise, I think the vast majority [inaudible].

25 Mosbaugh: Oh, yes. Obviously the pump problems and the valve
26 problems, and the, those types of things.

1 Swartzwelder: The other one, I think, is one of the load. I could not
2 see any progress on those. [Inaudible.] We are working
3 on [inaudible.]
4 Mosbaugh: Those are the same. Same status. Have we done anything
5 more with the gag?
6 Voice: No.
7 Mosbaugh: Okay.
8 Swartzwelder: [Inaudible] I'm just going to leave it in until 70
9 percent.
10 Mosbaugh: That's about all I had. I'm going to call the boys in
11 Birmingham, and I'm going to leave.
12 Swartzwelder: Who do you call, Paul?
13 Mosbaugh: Yes. It's been Shipman, but now -- now its back to Paul.
14 The start. We don't know anymore about the start?
15 Swartzwelder: Diesel start?
16 Mosbaugh: Yeah.
17 Voice: Well --
18 Mosbaugh: Oh, I have that.
19 Voice: You do?
20 Mosbaugh: I already have that.
21 Swartzwelder: You're not copied?
22 Mosbaugh: What?
23 Swartzwelder: You're not a copy?
24 Mosbaugh: Right there. Nobody is copied.
25 Swartzwelder: I know.
26 Mosbaugh: That's why we make thousands of them. [Laughter.]
27 Mosbaugh: It doesn't say anything [inaudible.].

1 Swartzwelder: All we really have determined is that its a test circuit
2 problem that will not impact performance, which is the
3 only thing I asked him to do [inaudible].
4 [Pause.]
5 Mosbaugh: Great.
6 Voice: [Inaudible] the only thing that deals with it.
7 Voice: [Inaudible.]
8 Voice: Do you [inaudible].
9 Voice: [Inaudible] negative phases such as grounding, and what
10 they're attempting to [inaudible].
11 Mosbaugh: They're testing to determine any degree of resonance that
12 we might have in the turbine due to our machine's
13 configuration, and so they are exciting the system with
14 this negative sequence baloney, and then they're going to
15 diiinnng the system with the out-of-phase
16 synchronization, okay? Basically what they're doing is
17 you got the big machine up there, and they're worried
18 about these last stage end bucket stress problems, okay?
19 What they're doing is they're essentially shaking the
20 machine electrically by negative phase sequence currents.
21 That's a steady-state test, okay? And then the out-of-
22 phase synchronization is a dynamic ringing type test
23 where, you know -- you think of something mechanical and
24 you're wondering if it's got some resonant vibration.
25 Well, you can put a shaker on it and shake it at
26 different frequencies, you know, and different magnitudes
27 and see if you have a response, or you can whack it with

a hammer and see what kind of ringing frequencies, you know, you get out of it. That's basically what they're doing. And then they're checking a series of frequency range by varying the RPM of the machine, you know, over certain ranges. So basically this is a vibrational test using electrically-induced stimuli. Okay? They're testing for mechanical vibrations by inducing the vibration electrically, and that's all they're doing. Then they determine what the resonant ranges are, and if we have resonant ranges and if we do, then General Electric has various recommendations for detuning.

Swartzwelder: Now, I would assume, my guess is if the resonant range we find is sufficiently away from normal operating speed, nothing will have to be done.

Mosbaugh: If it's more than two, plus or minus two hertz from 60, then there's nothing, okay? If it's like greater than one, plus or minus one, but less than two hertz, then there's monitoring, and if it's less than one, then there's physical changes, they'll recommend. That's kind of the guideline.

END TAPE NO. 58, SIDE A -- SIDE B NOT RECORDED

BEGIN TAPE NO. 57, SIDE A 4-19-90

[Marginalia: Third Floor, Service Building, Engineering Offices.]

VOICE: [Inaudible.]

Stokes: [Inaudible] they started the diesel like twice on that diesel where [inaudible].

VOICE: Yeah.

Stokes: We still had gas in the machine.

Mosbaugh: We had gas in the machine.

Blount: I gave them a little lecture on cutting the damned thing off. Don't ever cut it off.

Mosbaugh: With hydrogen in the machine, yeah.

Blount: They just got lucky. If it had been up like say that flange had held like eight or nine more pounds ... and they cut it off, it would have blown across the seal, and taken all the oil with it. We did that on Unit 2 with air. It makes a big mess. But when you're up and running at a low level like that, your lube oil supply will seal it to a certain degree. We never like to trust that. That's a secondary option.

VOICE: [Inaudible.]

Blount: That switch just probably needs a little adjustment.

Mosbaugh: Okay. So they were, what, not going to proceed with torsional until they --

Kavi: No.

1 Kitchens: I don't remember anything, any instructions given
2 out to anyone about power supplies.
3 Aufdenkampe: Instructions have been given to emergency
4 directors and communicators concerning
5 [inaudible].
6 Kitchens: [Inaudible] communicators [inaudible]. . . had to
7 approve it [inaudible] how to handle it at this
8 point now that we have modified the back-up unit.
9 VOICE: [Inaudible.]
10 Kitchens: I'm not sure that we've gone out and trained
11 everybody. [Inaudible] the communicators and the
12 emergency directors.
13 Aufdenkampe: Well, you know, I guess the questions would be --
14 we're not trying to mislead anybody with this
15 statement, and we have to have justification for
16 why this statement is correct. [Inaudible.]
17 VOICE: What about this front page?
18 Aufdenkampe: It's okay, as far as I know. [Inaudible.]
19 VOICE: I just don't see the [inaudible].
20 VOICE: [Inaudible.]
21 Aufdenkampe: It doesn't have to be in there [inaudible.]
22 Kitchens: I understand -- we -- our comment was change it
23 from 16 pages to eight pages, and take out all
24 that emergency planning stuff that's not required.
25 [Inaudible.]
26 VOICE: [Inaudible.]

1 Mosbaugh: Did you correct the diesel starts. I had given
2 John a comment on the diesel starts.
3 Aufdenkampe: We have, there is a comment in the PRB minutes to
4 either verify the sentence, reword the sentence,
5 or delete the sentence. That's what we're
6 actually doing.
7 **[Sound of Recorder being turned off and on again.]**
8 Kitchens: Now, if we can verify the, the sentence, I think
9 it would be more appropriate to say since March
10 the 20th that there's been, there were 18
11 consecutive starts of the DG. John is going to go
12 and either verify it or take these numbers out,
13 and take out the wording that says there are no
14 problems or failures -- basically says that there
15 are no failures and no problems. [Inaudible.]
16 Frederick: I think what caught his attention on the number of
17 starts was when they tallied them up in front of
18 the NRC, there were a different number. One came
19 out 20, and [Inaudible].
20 Kitchens: Yeah, but we've started them a dozen times
21 [inaudible].
22 **[Marginalia: (Milt Hunt) Chaffee team had**
23 **questioned the start data in COA and couldn't**
24 **figure how we counted starts.]**
25 Frederick: I know. And I think that's his real question on
26 the number.

1 VOICE: I believe --

2 [Inaudible conversation.]

3 Kitchens: In 20 minutes, we could verify the number, whether

4 it's 20 or not. Go through the log and look it

5 up. But John picked that as an action item. He's

6 going to verify if that's wrong or not. If it's

7 wrong, we'll take it out. Or if its right

8 [inaudible]. The other part was maybe to simplify

9 the sentence not to make it sound so all

10 encompassing. George pointed out there was a

11 failure of one of the, of the B diesels right

12 after the maintenance work on it.

13 Mosbaugh: Yeah. That was my comment.

14 Kitchens: I don't think anybody would hold that failure

15 against us since it's the diesel that's just been

16 disassembled. It wasn't operable. So we don't

17 want to make a statement with no failures and no

18 problems.

19 Mosbaugh: Yeah. I don't think you can make that statement.

20 Kitchens: We'll say "since March 20th, the diesels have been

21 started more than 20 times each, successfully,"

22 some words like that that -- whatever number it

23 comes out to be [inaudible]. Make sure its not a

24 false statement. Do you have any other comments,

25 Allen?

26 Mosbaugh: I just got a chance to look through it briefly,

1 those that were still valid alarms would have
2 remained lit and I would have gone on and tried to
3 get the diesel started.
4 Mosbaugh: Yeah.
5 Shipman: So, you know, I don't have a problem with what
6 we've got written, but George does, and I just
7 need to get a --
8 Mosbaugh: Yeah, okay. Let me do my best. I'll try to find
9 -- to see if the operator is here. If he is here,
10 we'll try to get him. If he is at home, we will
11 try to call him and I'll see if I can set that up
12 so we can ask the questions.
13 Shipman: Okay and the other, of course, the other question
14 we have been trying to get an answer to is to
15 reassure George [Hairston] that we have had more
16 than 20 valid starts since, you know, March 20,
17 like we say in the LER.
18 Mosbaugh: Yeah, now you realize I think there is a problem
19 with the way that is stated, because, you know,
20 the machine -- we can -- you know, we got one of
21 the guys trying to find what the total number of
22 the valid starts is, but there were failures.
23 Shipman: The problem that we got, Allen, is that the data
24 that is in LER is what George wrote and took and
25 told to the, Ebneter last Monday in Atlanta.
26 Mosbaugh: Well, you know, if anybody said that there weren't

1 Odom: Since March 20th though, is the meaning of that
2 sentence.
3 Mosbaugh: I have no problem with that, because what we're
4 doing -- it's still correct if you can dismiss the
5 period of time between 3-20 and 17:31 on 3-23.
6 It's merely since that date, and I'm -- and then
7 there have been no, you know, no failed starts or
8 no problems, resets you to 3-23.
9 Odom: Right.
10 Mosbaugh: At 17:30. But if there haven't been 19 starts
11 since 17:31 on 3-23, then it's still false.
12 Odom: Right.
13 Mosbaugh: Even under that subtle interpretation.
14 Odom: Okay.
15 Mosbaugh: So actually if somebody can verify that, that's
16 really critical to knowing if that statement is
17 true or false. How do we know that? Does anybody
18 have that data?
19 Odom: No.
20 Mosbaugh: You're getting it?
21 Odom: I'm not getting -- I haven't started getting that
22 data.
23 Mosbaugh: Hold it. Well, if Tom's getting the total starts
24 history, he should concentrate on the B machine
25 and get the start information.
26 Aufdenkampe: We don't have the logs.

1 Mosbaugh: You don't have the logs yet. You're just not far
2 enough along to have it.
3 Aufdenkampe: The -- well, the real key is that it's really got
4 to come from Kenny Stokes.
5 Odom: Right.
6 Mosbaugh: Well, it's got to come from Operations.
7 Operations has yet to send it to Kenny.
8 Aufdenkampe: Yeah. And it's got to come from Kenny Stokes
9 because Kenny Stokes -- you know, I'm just talking
10 about the -- telling the NRC people because Kenny
11 Stokes is the one who makes the calls of "valid"
12 or "invalid".
13 Mosbaugh: Yeah, but there's no -- the letter does not use
14 the word "valid," so that can be derived from log
15 data without engineering interpretation. Right?
16 They don't use the word "valid"?
17 Odom: No.
18 Mosbaugh: Okay. At what date was that letter written?
19 Odom: Ninth of April.
20 Mosbaugh: 4-9?
21 Odom: Yes.
22 Mosbaugh: Basically, if you had all the logs between 3-23
23 and 4-9 inclusive, you could have what you needed.
24 And all you'd need to do, I think, is get the B
25 machine.
26 [Pause.]

1 Mosbaugh: Do you have that?

2 [Pause.]

3 Aufdenkampe: Hello?

4 Odom: Yeah. We just started talking about. We just

5 said -- but the problem right now is not -- the

6 LER statement, I think, could come out. Do you

7 all agree with that?

8 Aufdenkampe: That's fine.

9 Mosbaugh: We need to know in the LER what we can say or can

10 say safely. We have to say -- we have to either

11 say -- you can use the word "valid" in the LER and

12 most probably be correct. But you may have to

13 change your numbers.

14 Webb: Allen?

15 Mosbaugh: Yeah.

16 Webb: This is Tom Webb. Do you feel like we should -- I

17 think we should do one of two things. Just tell

18 me what you think. We need to get rid of the

19 statement in the LER about how many failures or

20 how many tests you've got all together, or else

21 correct the misconception that we generated on

22 April 9th. I don't know if we should try to

23 continue the misconception that started nine days

24 ago.

25 Mosbaugh: Mr. Hairston will have to decide on that since he

26 signed it. And I think, however, we have to

quickly get the information I just mentioned.

Odom: **We can't get it quickly is my problem. We don't have that information available. That's got to come from ...**

Mosbaugh: Hold it. Hold it, hold it, hold it. For the B machine, if you'll -- if you have the control logs --

Odom: I don't have all the control logs is my problem right now. I've got days missing. I can go and look right know at what I got and we start on the days missing.

Mosbaugh: If you got the control logs for the B machine from 3-23 to 4-9 inclusive, you can do the job.

Odom: We're going to go look for them.

Mosbaugh: Okay.

Williams: You're talking about the logs from Kenny Stokes?

Mosbaugh: Yeah.

Williams: They're not up-to-date. They're not current.

Mosbaugh: We know that. We're talking control room logs.

Williams: Those aren't up-to-date.

Mosbaugh: No, no. Control room logs have to be filled out at the time they're generated. Right?

Williams: They do.

Mosbaugh: Well, they sure as hell better have them.

Williams: He's got all the control logs already.

Mosbaugh: Well, he said he had some days missing.

1 Williams: I've got all of them.

2 Mosbaugh: You have them all?

3 Williams: Yeah.

4 Mosbaugh: The logs --

5 Aufdenkampe: The reactor operators' logs?

6 Williams: I have the RO log and the SS log.

7 Mosbaugh: Okay. The log that would show diesel starts. Which

8 log do they log that in? The RO log?

9 Williams: Both usually. Both.

10 Mosbaugh: Whichever one is most complete.

11 Aufdenkampe: The RO log is the one that logs the starts.

12 Mosbaugh: Okay. The RO log from --

13 Sharon: Sharon speaking.

14 Mosbaugh: -- 3-20 to 4-9, inclusive.

15 Aufdenkampe: Sharon, I need Rick Odom.

16 Sharon: Hold on, please.

17 Mosbaugh: Okay. Do you have both of them?

18 Sharon: John?

19 Aufdenkampe: Yes?

20 Sharon: Do you want me to go in for him? [Inaudible.]

21 [Walking sounds; door closing sounds.] [Background

22 noise.]

23 ***END TAPE NO. 57, SIDE B***

24

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10 Transcript of audiotape No. 53,
11 transcribed by Judy J. Bragg, Certified Court
12 Reporter and Notary Public.
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1 think they were going to get a look at that, or a
2 PRB review that that was a PRB comment.
3 SHIPMAN: The information Jack has got
4 was that we can't get that, you know, we are not
5 going to have that, and I don't really see how we
6 are going to meet our reporting requirement unless
7 we have that information in the LER, do you?
8 MOSBAUGH: Well, the only issue would be
9 it obviously needs to be contained in the LER, but
10 the only question would be up to what date and
11 effective what date.
12 SHIPMAN: But we are reporting a failure
13 on the 20th.
14 MOSBAUGH: Right. It certainly needs to
15 be up through then.
16 SHIPMAN: All right. I think if we can
17 just say through the 20th --
18 MOSBAUGH: Through the 20th, that's no
19 problem at all.
20 SHIPMAN: Apparently it is from somebody,
21 and that's why I called you for some help.
22 MOSBAUGH: I don't think that's a problem
23 at all. Let me find out why that's a problem for
24 anybody. I think it becomes more difficult to make
25 statements, you know, up to today.

NRC Concern

1. The NRC is concerned about the incorrect number of diesel starts reported in LER 1-90-06 and the number of starts presented to the NRC on April 9, 1990 and in the confirmation response letter of April 9, 1990. The major issue remaining is to try and determine through personal interviews, how the number of 19 for diesel 1B was arrived at in the April 9 letter to the NRC. The NRC believes the intent of the April 9 letter and the presentation discussed consecutive successful starts. The revised response to LER 90-06 did not clarify the number of starts reported to the NRC April 9, and did not clarify that the 19 starts were not consecutive.

2. The inspector noted that documentation provided by Operations to support diesel trending (14980-C and 13145-C data sheets) does not contain an adequate description of what happens during the start attempt. The plant is not interpreting Reg Guide 1.108 properly with regard to reporting valid and non-valid failures. There may be valid and non-valid failures that were not reported. The NRC does not consider the current status of reporting diesel failures to be in compliance with commitments made to the NRC in Violation 50-424/87-57.

NRC Documentation

The NRC has reviewed the diesel start log and supporting documentation (14980-C and 13145-C data sheets). The NRC currently believes some problems identified on 14980's and 13145's should be classified as non-valid failures and reported to the NRC. The NRC has requested and received written analysis to explain the disposition of the following 1B diesel starts: #'s 123, 124, 132, 133, 134, 136, 160, 161, 162, 164, 165, and 190. LER 1-90-06, revision 1; QA Audit Report OP26-90/33; QA Audit Report OP09-90/31; and Special Report 1-90-05, dated August 7, 1990; GPC confirmatory action letter dated April 9, 1990.

VEGP Position

1. The error made in the number of diesel starts reported to the NRC on April 9, 1990, and in LER 1-90-06 is attributed to two factors:

   a. The testing as described in LER 90-06, revision 0, was in the "context of" and "in reference to" the diesel control systems. The first two sentences of the 5th paragraph explain actions taken with regard to sensor calibrations and control system testing. In this context, the test program correlates to testing discussed with the NRC on April 9, 1990, and reported in the April 9, 1990, confirmatory letter. The LER 90-06 comment of "subsequent to the test program" was not intended to exclude successful diesel starts before declaring the diesel operable. As a result, diesel starts after testing of the control systems, but before a declaration of operability were counted. The transmittal letter for LER 90-06, revision 1, describes the confusion and attempts to clarify the concern by redefining the types of starts and the point of counting.

b. LER 90-06, revision 1, was intended to clarify any inadvertent "misleading" of the NRC on successful operation of the diesel control systems. When Vogtle Management was aware of the problem in LER 90-06, revision 0, management notified the NRC Residents. Also at the corporate office on 6/11/90, W. Shipman contacted Ken Brockman and on about 6/11/90, W. G. Hairston, III, contacted Mr. S. Ebneter of NRC Region II. The revised LER was submitted on 6/29/90.

The 19 starts discussed on April 9 were based on operator assessments of the starts as successful using VEGP procedures. Additional review of these starts by both the NRC and Vogtle personnel indicates start #134, performed on March 23, 1990, could be counted as unsuccessful. If start #134 is not counted, only 14 successful starts occurred before April 9, 1990. This start will be reviewed in detail and an appropriate report to clarify the number of starts reported April 9, 1990 will be made.

2. After a thorough review of Reg Guide 1.108, Engineering Support (Mike Horton) agreed that all diesel start problems have not been reported as failures. GPC's response to NRC Violation 424/87-57 committed to report such equipment problems as failures; however, due to internal administrative problems, the commitment was not implemented. Engineering Support intends to review diesel start records for any unreported failures.

VEGP Documentation

- LER 1-90-06, revision 1; QA Audit Report OP26-90/33; QA Audit Report OP09-90/31; and Special Report 1-90-05, dated August 7, 1990; GPC confirmatory action letter dated April 9, 1990.

- 1B diesel start analysis available 8/15/90 and Reg Guide 1.108 position from Engineering Support.

8/22/90
Time: 13:00

Response to NRC Question Concerning
Diesel Starts Reported on April 9, 1990
and in LER 90-06, Revisions 0 and 1

Question #1

1. Who prepared the slide for the 4/9/90 presentation?
   Answer: G. Bockhold, Jr., J. P. Cash, and K. Burr working as a group.

2. Who approved use of the slide?
   Answer: G. Bockhold, Jr.

Question #2

1. Who prepared the confirmatory letter of April 9, 1990?
   Answer: C. K. McCoy, J. A. Bailey, W. G. Hairston, III as a group.

2. Who approved the letter?
   Answer: W. G. Hairston, III

Question #3 (with regard to LER 90-06, revision 0, dated 4/19/90)

1. Who prepared the LER?
   Answer: Several draft revisions of the LER were prepared by Tom Webb and others of the NSAC group of the Vogtle Site Technical Support. These drafts were reviewed and commented on by the Plant Review Board. The final revision of LER 90-06, revision 0 was prepared by a phonecon between site management and corporate management. Those participating are believed to be G. Bockhold, Jr., A. L. Mosbaugh, J. G. Aufdenkampe, W. Shipman.

2. Who reviewed the LER?
   Answer: All revisions of the LER were reviewed by the PRB and the General Manager-Plant Vogtle.

3. Who approved the LER?
   Answer: The LER was approved by W. G. Hairston, III

Question #4

1. Who prepared the cover letter for LER 90-06, revision 1?
   Answer: The cover letter was prepared by H. W. Majors of the corporate staff. This letter was prepared under the guidance of W. G. Hairston.

2. What was the purpose (intent) in the wording of the cover letter with regard to the number of diesel starts?
   Answer: The cover letter was intended to document discussions with NRC Region II to clarify the starts documented in LER 90-06, revision 0. By picking a well defined point to specify "subsequent to the test program" it was possible to identify a substantial number of successful diesel starts. This was intended to remove any additional ambiguity.

Question #5

1. Who in corporate added the words "subsequent to the test program" in LER 90-06, revision 0?
   Answer: Corporate Licensing personnel in conjunction with the phone conversation described above made editorial changes as directed. Those present during the phone conversation are thought to be W. Shipman, G. Bockhold, Jr., A. L. Mosbaugh, J. G. Aufdenkampe, and J. Stringfellow.

1 Tape 172, Side A

2 * * * *

3 (Pause in tape)

4 (Walking sounds)

5 (Door closing sound)

6 (Zipping or unzipping)

7 (Toilet flushing sound)

8 (Walking sounds).

9 (Door opening.)

10 G. BOCKHOLD (GB): I asked for this

11 meeting with you, Allen, and the NRC basically

12 (inaudible) complaint that you filed with Department

13 of Labor. Specifically, I'd like to focus on the

14 quality concerns and the technical issues. And you

15 had three things listed in here that your lawyer

16 informed the Department of Labor about; and I can

17 read that one of two ways. The one of two ways are

18 that these three items relate to the FAVA quality

19 concerns that's in the file, and we worked on -- and

20 we have drawn some continuing concerns and we are

21 continuing to work on it -- or I can read that that

22 this is potentially related to other quality,

23 technical-type concerns. And if it's related to

24 other quality, technical-type concerns, I'd like to

25 know what those are. If you feel uncomfortable

1 telling me, I'd like you to tell the NRC,
2 specifically John, what they are. If you don't have
3 any more, then this will be a really short meeting.
4 If you do have more and you have concerns about
5 telling me, I'll leave and let you talk to John. If
6 -- you know, I guess that's the two kind of
7 questions that I have.
8 JOHN ROGGE (JR): (Inaudible.)
9 G. BOCKHOLD: Sure.
10 JOHN ROGGE: (Inaudible) three items in
11 the letter, don't relate to the FAVA issue?
12 G. BOCKHOLD: I think they relate to the
13 FAVA issue.
14 (Inaudible) You can read the whole
15 thing. You know, it's just a clarification, if
16 (inaudible) there are additional technical issues
17 that you're are aware.
18 JOHN ROGGE: (Inaudible.)... memorandum
19 that's No. 1?
20 G. BOCKHOLD: Well, I'm not sure how this
21 put this together. There are multiple memorandums
22 associated with the FAVA issue. You know, the whole
23 series in quality concerns file associated with the
24 FAVA issue. My specific question is, is there other
25 issues that need to be brought out? If there are

1 down and close them out, because that's how they
2 handle the diagnostics of the problem.
3 J.G. AUFDENKAMPE: A separate issue, I
4 talked to Lee Trazine last week about the site area
5 emergency LER and I told her that there was an
6 incorrect statement in that LER associated with
7 diesel starts and to pass that on to Brockman. And
8 we are revising the LER; but we decided to revise
9 the entire LER.
10 (Inaudible.)
11 It will probably be (inaudible).
12 J.G. AUFDENKAMPE: We got the revision of
13 the corporate about three weeks ago.
14 (Inaudible) we are going to (inaudible).
15 JOHN ROGGE: When do you think it's going
16 to be a 2?
17 J.G. AUFDENKAMPE: I imagine that it will
18 go to the PRB this Thursday and it will be out God
19 knows when after that because it has to go to
20 corporate.
21 JOHN ROGGE: It's not up there now?
22 (Inaudible.)
23 J.G. AUFDENKAMPE: Oh, it was.
24 JOHN ROGGE: How long's it been up
25 there?

J.G. AUFDENKAMPE: Just four weeks for a complete rewrite.

(Inaudible) four weeks ago (inaudible).

J.G. AUFDENKAMPE: That will go out of the PRB on Thursday.

J.G. AUFDENKAMPE: I will keep you informed as to the progress of it.

JOHN ROGGE: I appreciate that.

A.L. MOSBAUGH: You may want to provide a copy (inaudible).

J.G. AUFDENKAMPE: Are you leaving --

(Inaudible.)

JOHN ROGGE: Don't ask that. (Inaudible.)

JOHN ROGGE: They have your number.

A.L. MOSBAUGH: Independent confirmation.

JOHN ROGGE: Why would John be working on that LER now? Okay.

A.L. MOSBAUGH: Obviously George Bockhold just called him.

JOHN ROGGE: (Laughter.) Are you sure you're not an inspector for the (inaudible).

A.L. MOSBAUGH: I could be, but -- what was I -- oh, I was discussing careless disregard and

CKM/MJA comments on 1ST Draft

ELV-02059
0579

Docket No. 50-424

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Atlanta, GA 30323
ATTN: Mr. S. D. Ebneter

attempted to clarify this by using reg. guide terminology (i.e. valid vs. successful starts) and clearly defining the time period.

Dear Mr. Ebneter:

VOGTLE ELECTRIC GENERATING PLANT
CLARIFICATION OF RESPONSE TO CONFIRMATION
OF ACTION LETTER

and in our meeting notes,

By letter dated April 9, 1990 (ELV-01516), Georgia Power Company (GPC) responded to a Confirmation of Action Letter dated March 23, 1990. In that letter, GPC reported that Diesel Generator (DG) 1A had been started 18 times and DG 1B had been started 19 times with no failure or problems during any of these starts. ~~Subsequently,~~ In a Licensee Event Report (LER) dated April 19, 1990 (LER 50-424/1990-006, ELV-01545) and revision 1 to this LER dated June 29, 1990 (ELV-01729), GPC ~~revised these numbers which has created confusion~~. GPC believes that revision 1 to LER 50-424/1990-006 accurately reports the number of valid tests during the period of March 21 through June 7, 1990. The purpose of this letter is to clarify the figures related to the number of diesel starts as reported in our April 9, 1990 letter for the period of March 20 to April 9, 1990. INSERT

Attached are Tables 1 and 2 which summarize the diesel starts for this period. For DG1A, there was a total of 31 start attempts and 29 of these attempts were considered successful. For DG1B, there was a total of 24 attempts (excluding five post-maintenance start attempts) and 23 of these attempts were considered to be successful.

During the O.S.I., it was pointed out that this did not completely clarify the ~~numbers~~ figures in the April 9 letter, therefore

Sincerely,

W. G. Hairston, III

WGH,III/NJS/gm

~~Attachments~~

xc (see next page)

As reported in our phone calls to you, we discovered that these ~~numbers of starts~~ were in error and were not clearly defined.

• During this period the D.G. was being tested with many start attempts made. When the D.G. was started and ran without problems or if the cause of engine shutdown were intentional due to testing in progress this start was considered successful. Successfull was never intended to imply "Valid" in the context of Reg Guide 1.108.

In this use of multiple terms to discuss diesel engine starts was confusing and in combination the operations supt. & engr. in counting the number of starts resulted in the confusion of the April 9 letter.

CKM comments (2nd draft)

ELV-02059
0579

Docket No. 50-424

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Atlanta, GA 30323
ATTN: Mr. S. D. Ebneter

Dear Mr. Ebneter:

VOGTLE ELECTRIC GENERATING PLANT
CLARIFICATION OF RESPONSE TO CONFIRMATION
OF ACTION LETTER

By letter dated April 9, 1990 (ELV-01516), Georgia Power Company (GPC) responded to a Confirmation of Action Letter dated March 23, 1990. In that letter and in our meeting notes, GPC reported that Diesel Generator (DG) 1A had been started 18 times and DG 1B had been started 19 times with no failure or problems during any of these starts. As reported in our telephone calls to you we discovered that these figures were in error and were not clearly defined. In a Licensee Event Report (LER) dated April 19, 1990 (LER 50-424/1990-006, ELV-01545) and revision 1 to this LER dated June 29, 1990 (ELV-01729), GPC attempted to claify this by using regulatory guide terminology (i.e., valid vs. successful starts) and clearly defining this time period. GPC believes that revision 1 to LER 50-424/1990-006 accurately reports the number of valid tests during the period of March 21 through June 7, 1990. During the O.S.I., it was pointed out that this did not completely clarify the numbers in the April 9 letter, there the purpose of this letter is to clarify the figures related to the number of diesel starts as reported in our April 9, 1990 letter for the period of March 20 to April 9, 1990.

Fore

The errors in the April 9 letter were due to inaccurate counting of starts by an operations superintendent who tried to count "successful" starts. During this period the DG was being tested with many start attempts made. Whether the DG was started and run without problems or if the cause of engine shutdown was intentional due to testing in progress this start was considered successful. Successful was never intended to imply "valid" in the context of Regulatory Guide 1.108. In hindsite this use of multiple terms to discuss diesel engine starts was confusing and in combination with the operations superintendent error in counting the number of starts resulted in the confusion of the April 9 letter.

HINDSIGHT

Attached are Tables 1 and 2 which summarize the diesel starts for this period. For DG1A, there was a total of 31 start attempts and 29 of these attempts were considered successful after the two failures associated with the March 20 event. For DG1B, there was a total of 24 attempts (excluding five post-maintenance start attempts) and 23 of these attempts were considered to be successful.

Sincerely,

W. G. Hairston, III

WGH,III/NJS/gm

Attachments

xc: Georgia Power Company
Mr. C. K. McCoy
Mr. G. Bockhold, Jr.
Mr. R. M. Odom
Mr. P. D. Rushton
NORMS

U. S. Nuclear Regulatory Commission
Document Control Desk
Mr. T. A. Reed, Licensing Project Manager, NRR
Mr. B. R. Bonser, Senior Resident Inspector, Vogtle

Transcription of Audiotape No. 157 transcribed by Janice Walters, Certified Court Reporter and Notary Public.

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[APPROXIMATELY 10% THROUGH SIDE A]

(Phone dial tone and phone ringing.)
RUSHTON: Paul Rushton.
MOSBAUGH: Paul, this is Allen. I understood from Theresa you wanted to talk to me.

RUSHTON: Yes, I did. I am trying to get the background on this LER for the diesel generator starts.

MOSBAUGH: Uh-huh.

RUSHTON: And we had originally reported at least 18 and now we are going to report that was in error and that it was, I think, 15 and 14 respectively was the correct numbers and Tom Greene told me that you had the background on that because I am going to need to explain it to management up here.

MOSBAUGH: I think John Aufdenkampe has been talking to Jim Bailey about that.

RUSHTON: Yeah. I got a part of that story. John -- wasn't real clear in listening to John about a couple of things. Like, I understand that the 18 came from a tally of the starts logged in the control room operator's log, and that when we went back and filled in the diesel generator logs that Engineering maintains, they came up and counted them differently.

And it wasn't clear to me why one log has

1 got 18 or more but other logs only count 15 or 14.
2 I didn't understand the difference between the two
3 logs.
4 MOSBAUGH: Yeah. Well, I guess you would
5 have to ask the Operations people about how they
6 keep their logs. (Pause.) They initiate both logs.
7 (Ice biting sounds.) They initiate the log in the
8 control room and they initiate the data sheets that
9 count the starts. (Pause.) So why don't you call
10 Jim Swartzwelder or somebody about that?
11 RUSHTON: So you don't know what the
12 history is on it?
13 MOSBAUGH: I know some of the history
14 because I was in the PRB when we approved the
15 revision to the LER. And I can only tell you that
16 any differences between the logs that Operations
17 generates that fills out data sheets versus the logs
18 that they maintain in the main control room that
19 I -- that you would have to ask Jim Swartzwelder why
20 there are discrepancies between their logs.
21 RUSHTON: Okay.
22 MOSBAUGH: And I am not sure that that
23 fact explains all the discrepancies. I do not
24 believe actually that that fact is a discrepancy,
25 but that fact does not explain the discrepancies and

1 the reason why the previous numbers were incorrect.
2 I believe that mistakes were made in the
3 previous numbers and that that probably started with
4 George Bockhold and his presentation to the NRC.
5 RUSHTON: If Bockhold made a presentation
6 to the NRC, then he used numbers like 18 and 19.
7 MOSBAUGH: I believe that that is where
8 the mistake originated.
9 RUSHTON: And those got put into the LER
10 without verification?
11 MOSBAUGH: Uhm. No, I think there was --
12 I believe that inaccuracies in those numbers were
13 flagged -- were flagged in the LER, in the LER
14 development. (Ice biting sounds.)
15 RUSHTON: You are telling me I need to go
16 talk to Operations and find out what the problem
17 was?
18 MOSBAUGH: In terms of logs, the log
19 discrepancies, I can't explain why there are
20 differences in the way operators fill out logs. You
21 know, I don't work in that area.
22 RUSHTON: Okay. Well, fine. I will call
23 Operations then.
24 MOSBAUGH: But I think that will not
25 explain everything.

1 RUSHTON: What else is there that I need
2 to know?
3 MOSBAUGH: I think there is whatever
4 initial mistake was made. And, as far as I know,
5 George Bockhold and maybe some of the Operations
6 people developed the initial information that George
7 used in his presentation.
8 RUSHTON: Okay. You don't know where
9 that information came from?
10 MOSBAUGH: (Biting ice sounds.) John says
11 Jimmy Paul Cash.
12 RUSHTON: Okay.
13 MOSBAUGH: Beyond that it is merely a
14 comparison between what was originally developed by
15 George and them to what the data sheets and the
16 control logs say.
17 RUSHTON: Okay. I will check with
18 Operations then.
19 MOSBAUGH: Okay.
20 RUSHTON: Bye.
21 MOSBAUGH: See ya. Bye.
22 (Movement sounds.)
23 MOSBAUGH: What's going on?
(Inaudible)
24 AUFDENKAMPE: Hairston's evidently on a
25 tear for misinformation.

1 MOSBAUGH: He's on a what?

2 AUFDENKAMPE: He's on a-- He's on a--

3 He's pissed off over misinformation.

4 MOSBAUGH: On this?

5 AUFDENKAMPE: Well, he's pissed off over

6 the revised LER for a date change because Lackey

7 didn't get the stuff done on time and he's pissed

8 off over this one.

(Movement sounds)

9 MOSBAUGH: (To himself) I should have

10 asked him. I didn't ask him why the hell are you

11 calling me. All I did was compare two sets of

12 data. That, anybody can do. Now, they have got the

13 experience, the responsible parties will need to

14 account.

15 (Pause in tape.)

16 MOSBAUGH: (Inaudible) from the middle of

17 May and now on Friday today is, it's finished.-- Well,

18 come on.

19 AUFDENKAMPE: I can tell you why they've

20 had it for so long.

21 MOSBAUGH: Something's going on.

22 AUFDENKAMPE: Nah, nah. (Inaudible) your stock trader's. . .

23 MOSBAUGH: Yes, my instinct.

24 AUFDENKAMPE: I will tell you why they

25 have had it for so long is basically they have got

1 it and they have been sitting on it because I talked
2 Jack Stringfellow several times, and he said he
3 hasn't had time to work on it with the other ones
4 going out that have a time clock on them.
5 MOSBAUGH: Right. [Facetious tone.]
6 AUFDENKAMPE: -- times clocks on it.
7 MOSBAUGH: Right. [Facetious tone.]
8 AUFDENKAMPE: And that is true. That is
9 true.
10 MOSBAUGH: Get out of here. I don't
11 believe that for anything.
12 AUFDENKAMPE: That's the way Bailey
13 operates, Bailey operates the clock.
14 MOSBAUGH: I don't believe that for a
15 second.
16 AUFDENKAMPE: That is true.
17 MOSBAUGH: That is my stock trader's
18 instinct.
19 AUFDENKAMPE: The second part of it is
20 more elementary than that and that is the same thing
21 that always concerns you is that the NRC misleading
22 diesel information and Hairston gets nervous about
23 that.
24 (Pause.)
25 AUFDENKAMPE: OI is back.

1 MOSBAUGH: What?

2 AUFDENKAMPE: OI is back.

3 MOSBAUGH: What do you mean?

4 (Falsetto voice.) "They're back."

5 MOSBAUGH: They called somebody at home,

6 but is it more than that?

7 AUFDENKAMPE: They're supposed to be back

8 this week.

9 MOSBAUGH: Oh.
AUFDENKAMPE: Who did they call at

10 home? Did George put this out at the staff meeting?

11 MOSBAUGH: George put this out in a staff

12 meeting?

13 AUFDENKAMPE: Not the staff meeting, must

14 have been the 7:40 meeting. (Inaudible)

15 MOSBAUGH: It's when you were gone. It

16 was Wednesday. It wasn't yesterday and he put out

17 in the 7:40 meeting that they had contacted somebody

18 at home and he was reminding everybody of the

19 Company advice on that and referenced the old letter

20 that they developed for it.

21 I tried to find out who it was and wasn't

22 able to, so I conclude that it was obviously in

23 Skip's organization.

24 (Phone rings.)

25 AUFDENKAMPE: John Aufdenkampe.

1 BAILEY: John, how are you doing?
2 AUFDENKAMPE: Wonderful.
3 BAILEY: I don't think we've had the full
4 story on the generator starts, the numbering, who
5 is supposed to have the exact story on that.
6 AUFDENKAMPE: Jim, I don't think -- is
7 Paul in there with you?
8 BAILEY: Yes.
9 AUFDENKAMPE: Okay. Allen is in here with
10 me. I don't think anybody has and I didn't say
11 because I am not really sure what you are looking
12 for with respect to the whole story, but I am not
13 sure anybody has the whole story as to why we've
14 got misinformation in there, okay.
15 RUSHTON: That's the --
16 AUFDENKAMPE: The real bottom line on why
17 we have the misinformation in there, if you want to
18 point at one thing, is because we made the decision
19 -- we as management made the decision and the
20 Shipmans, Bockholds, Bailey, Aufdenkampe, Mosbaugh,
21 who else was on that phone call -- to put those
22 numbers in based on the fact that George [Bockhold]
23 told us that they were good numbers because they
24 used as the start point, completions of, I
25 think it was, the undervoltage testing, okay.

1 And when we went back, what was it he
2 said?
3 MOSBAUGH: For George's?
4 AUFDENKAMPE: Yeah, George.
5 MOSBAUGH: I have no idea. I have no
6 idea what George's basis was for the data he
7 presented to the Commission.
8 BAILEY: You're talking about George
9 Bockhold?
10 MOSBAUGH: Yes. But I have no idea what
11 the basis was.
12 AUFDENKAMPE: It is based on --
13 MOSBAUGH: It was not based on
14 undervoltage. It couldn't be.
15 AUFDENKAMPE: It was based on George's
16 comment that that, that he had used this point,
17 whatever the point was, whatever the point was,
18 that's exactly what he said as the start point. And
19 we have completed the critical testing associated
20 with declaration of or with (operability?).
21 MOSBAUGH: George never presented what
22 his basis was.
23 AUFDENKAMPE: And I know those numbers
24 were counted by Jimmy Paul Cash.
25 MOSBAUGH: The final numbers are based on

1 starting with the UV test as the first test. But
2 what George's basis was, only George knows.
3 RUSHTON: When was the UV test in the
4 sequence of events?
5 AUFDENKAMPE: Pretty far down the line.
6 Right before we declared them operable, I think.
7 MOSBAUGH: Yes.
8 RUSHTON: So we may have done 18 or 19
9 successful starts, but it just depends on where you
10 start counting.
11 BAILEY: Yeah.
12 AUFDENKAMPE: No, that is not true.
13 BAILEY: That's what it looks like.
14 AUFDENKAMPE: No, that is not true.
15 There were not 18 or 19 successful starts,
16 continuous starts, regardless of where you started
17 counting when we reviewed the detailed data, not
18 consecutive.
19 RUSHTON: Starting from March 20th?
20 AUFDENKAMPE: Starting from March 20th.
21 There were not 18 or 19 consecutive, which is the
22 LER implies to consecutive starts without a failure
23 of some type or another.
24 BAILEY: Here is what George has got
25 listed on his chart that he presented in Atlanta.

1 BAILEY/RUSHTON: He said five starts in
2 troubleshooting, there is a UV run test, sensor
3 calibration, logic testing, E-run bubble testing,
4 multiple starts five more, UV test, six months'
5 surveillance, high jacket water runs three times and
6 the UV run test. That adds up to 18.
7 MOSBAUGH: In amongst 18 are numerous
8 failures.
9 AUFDENKAMPE: Failures.
10 BAILEY: What was that, Allen?
11 AUFDENKAMPE: There are failures in
12 amongst those, mixed in with.
13 BAILEY: Yes. Okay. He just says 18
14 successful starts. He didn't say there were
15 consecutive successful starts.
16 AUFDENKAMPE: What we put in there was 18
17 starts without a failure.
18 BAILEY: I am talking about on the chart,
19 it doesn't say consecutive.
20 AUFDENKAMPE: That is what we put in the
21 April 9th letter was 18 starts without a failure.
22 BAILEY: This chart implies that, that he
23 didn't mention any failure.
24 MOSBAUGH: You have to check the data but
25 you may find that some of those five ones mentioned

1 failed, for example.

2 BAILEY: Five troubleshooting?

3 MOSBAUGH: Uh-huh.

4 BAILEY: Yes.

5 MOSBAUGH: I don't think you have any

6 guarantee that those were all successful.

7 BAILEY: Like I said, it doesn't say

8 that, but it implies that. And this is --

9 MOSBAUGH: It says that, because at the

10 bottom it says 18 successful starts.

11 BAILEY: I mean, it implies that they

12 were consecutive successful starts.

13 MOSBAUGH: It may imply that. Yeah. It

14 probably implies that.

15 BAILEY: I think that that's what we led

16 the NRC to believe that in Atlanta.

17 AUFDENKAMPE: I think that's what people

18 thought at the time. You know, Paul, when you go to

19 Hairston, you have got to tell him that we just

20 plain old screwed up; that we had data based on what

21 we thought -- we had data that we felt supported the

22 statements that were made in the LER and the, what

23 George presented in Atlanta; that upon further

24 scrutiny that it did not support that and at the

25 time we issued the LER we were more concerned about

1 whether those numbers were right or wrong.

2 BAILEY: The information was supplied to

3 IIT. Did we ever correct what we told them or do

4 you know?

5 AUFDENKAMPE: We have not corrected the

6 April 9th letter. The IIT, I guarantee you, knows

7 exactly what happened.

8 BAILEY: They had to get the information

9 from us somehow, but we don't know what they are

10 going to present today in Washington?

11 AUFDENKAMPE: I doubt they will get into

12 those kind of specifics. But we have --

13 BAILEY: I mean, in the report.

14 AUFDENKAMPE: But these lists that we put

15 together, this gave the summary of the start

16 sequences as failures and what happened and stuff

17 like that we wrote the revised LER on, the IIT was

18 given that.

19 BAILEY: In the revised numbers that we

20 are presenting now, where did these numbers come

21 from?

22 AUFDENKAMPE: Kenny Stokes took all the

23 diesel starts, put that down, wrote the diesel log,

24 and I guess -- did he review the operator's logs,

25 too? He, reviewed the operator's logs to make sure that

1 we had picked up everything, that we had the big
2 picture.
3 BAILEY: Doesn't look like there is a
4 good story other than we were just in the process of
5 all the confusion and stuff that we just screwed up.
6 AUFDENKAMPE: You know, you might would
7 argue that if there was a good story, we could
8 probably argue not revising the LER. If we had some
9 good sound basis for what is in the LER, we could
10 get around revising it.
11 BAILEY: Yeah.
12 AUFDENKAMPE: Paul, is that what you are
13 looking for?
14 RUSHTON: Yes. I was looking for a
15 good story that, you know, we could use to explain
16 how this error had been made and not make us all
17 look like a bunch of dummies, but sounds like we
18 were a bunch of dummies.
19 AUFDENKAMPE: That is my perspective
(chuckling).
20 RUSHTON: We did the best we could at
21 the time and we went so fast through everything that
22 we didn't have adequate checks and balances to make
23 sure that every single piece of data was absolutely
24 correct and now that we have been through the IIT
25 investigation and done a whole lot more

1 documentation, probably with further review and
2 study we found that we were in error, you know.
3 And that's the best story we got to go
4 with.
5 BAILEY: You know, based on that it
6 seemed to me like that we ought not to send in this
7 damn LER or revised LER until the IIT report.
8 Otherwise we may have a damn conflict in there, [in the
9 revised LER].
10 AUFDENKAMPE: Well, I would only make the
11 warning -- and throw it up to you guys. We felt
12 compelled down here as soon as we identified the
13 problem to correct it as expeditiously as possible.
14 BAILEY: And I agree with that, but I am
15 saying now that that report may be coming out next
16 week or today that we give them (inaudible).
17 AUFDENKAMPE: Well, anyway.
18 BAILEY: We still are confused about
19 these numbers.
20 AUFDENKAMPE: I understand.
21 RUSHTON: I think that, you know,
22 Hairston feels that we have -- he's gone on the
23 record attesting to the information in the LER and
24 now we come back and say it's wrong.
25 And based on past precedent, I think he's going to

1 probably either document it in the cover letter on
2 the LER or somewhere in the record why it was wrong
3 and what corrective action we have taken to make
4 sure we don't report wrong information in the
5 future.
6 AUFDENKAMPE: Okay. Let me, I will tell you
7 what, Paul, let me bring that up with Tom Greene.
8 Now, I will tell you what, generally the LER
9 information is verified by my people, okay, up to a
10 point.
11 BAILEY: Yes.
12 AUFDENKAMPE: We can't verify everything,
13 but generally it is verified by my people. Now, my
14 people started with the original April 9th letter as
15 their bases.
16 RUSHTON: Yes.
17 AUFDENKAMPE: Now, I don't think -- I
18 think -- I am not trying to dump this back in your
19 lap, Jim. I just really don't recall. I think you
20 guys generated the April 9th letter up there.
21 BAILEY: We did.
22 AUFDENKAMPE: We may have verified this
23 stuff on the April 9th letter. I do not know
24 whether I did that on-site or how we did the
25 verification of that information.

1 MR. RUSHTON: The PRB reviewed it.
2 AUFDENKAMPE: Yes, the PRB reviewed it,
3 but they won't always go back and verify that kind
4 of -- huh? The April 9th letter.
5 MOSBAUGH: I'm not sure we PRBed that --
6 It was sent before.
7 AUFDENKAMPE: The PRB did after it went
8 out.
9 BAILEY: Well, the PRB had it prior to
10 that time. We made some revisions.
11 AUFDENKAMPE: I am getting a vicious
12 shaking of a "no" by a head here, who will remain
13 nameless.
14 But anyway regardless, regardless. I
15 don't know who did verification of that and I
16 suspect that the majority of that verification was
17 done through hearsay (inaudible).
18 MR. RUSHTON: Probably was.
19 AUFDENKAMPE: And that's where we erred.
20 If you want to point out where we erred on that,
21 that's where we erred and -- as far as written
22 communications.
23 And George probably erred in his
24 presentation because a lot of that presentation was
25 made on hearsay because of the time frame involved

1 in putting the presentation together.

2 So, if Mr. Hairston wants to do something

3 different, we certainly can, but all we can do is

4 say that we will verify everything before we send it

5 out and I will personally do that and it will -- I

6 don't mean this in a threatening nature at all. It

7 just takes longer sometimes. Sometimes we won't be

8 able to make the dates that we want to meet.

9 BAILEY: I agree with you.

10 RUSHTON: All right.

11 AUFDENKAMPE: Do you guys feel better now

12 that you understand the whole story?

13 BAILEY: (Laughter.)

14 RUSHTON: Yeah. Yeah. I am a little

15 better equipped now.

16 AUFDENKAMPE: Paul --

17 RUSHTON: Yeah.

18 AUFDENKAMPE: -- this is my recollection

19 and Allen's recollection of how things went. We are

20 about to go to the PRB. I will recount this

21 conversation and concerns that you guys have to the

22 PRB and specifically Tom Greene to see if he wants

23 to do anything else.

24 RUSHTON: Well, the other one is on the

25 -- you have got two of them going down there . . .

[LINES 1 - 6 DELETED]

5 [APPROXIMATELY 70% THROUGH SIDE A]

6 ****

7 MOSBAUGH: I'm a little confused. I am getting these confusing

8 calls today. Rushton and Bailey and people. Why

9 did you call me for Tom when Tom was right here?

10 HORTON: Because he was talking to Lee (inaudible).

MOSBAUGH: Why, I am trying figure out (inaudible).

11 HORTON: Because he asked me what the

12 basis was for changing the number in the LER we sent

13 in from something to something.

14 MOSBAUGH: Uh-huh.

15 HORTON: And I told him I couldn't

16 remember, but I felt for sure you would, because I

17 thought you had been heavily involved in that --.

18 MOSBAUGH: Uh-huh.

19 HORTON: -- and would probably remember

20 what the reasoning was because we had a real

21 specific definition from what I remember of when we

22 declared the testing run start and --

23 MOSBAUGH: We only -- we only developed

24 that after there was a discrepancy.

25 HORTON: Yes, after.

1 MOSBAUGH: During that PRB meeting,
2 that's right. We discussed when that was going to
3 be and everybody agreed that it was going to be at a
4 certain point and then we submitted the revision.
5 I don't know what corporate is up to.
6 Rushton keeps calling me and wanting to talk about
7 this thing and explain why the initial information
8 was incorrect. I keep telling him I got no idea why
9 initial information was incorrect. It came from
10 George (laughter).
11 MOSBAUGH: It came from George and Jimmy
12 Paul Cash is where it came from. George made a
13 verbal presentation up there and then what happened
14 was NSAC [Nuclear Safety And Compliance Dept. under Odom, Aufdenkampe, and Mosbaugh] took that information and said well --
15 HORTON: And wrote it up.
16 MOSBAUGH: -- that was on that date and
17 since that date we had three or more starts. So
18 effective this date, it's this. Okay. That's what
19 NSAC did. If the initial information was wrong,
20 obviously what NSAC did was wrong. You know, that's
21 how the problem got started.
22 HORTON: I didn't mean to drag you into
23 this. I figured you would remember it all.
24 MOSBAUGH: Yeah. I don't know. I am not
25 sure. Their search for the guilty or something.

HORTON: That's definitely what it sounds like they are up to and as long as they know all that, they just need to give us the --

MOSBAUGH: I told them, I said, "you are going to have to talk to George [Bockhold]. And you are going to have to talk to whoever developed this information for George so as to explain why it's incorrect."

HORTON: So they are comparing the George's presentation to a (inaudible) LER?

MOSBAUGH: No. All -- they probably ought to. (Laughter.) You know, I mean, we will not be the only ones making that comparison. But no, they are mainly seem to be wanting to just talk about the LER because it's up there for revision, so. Okay.

MALE SPEAKER: All right.

****

DG1A

DATE	TIME	STARTED
3-12-90	1306	STARTED
	1317	TIED TO GRID
	1345	LOADED TO 7600 KW
	1355	UNLOADED TO 6800 KW
	1425	REMOVED FROM PARALLEL TO GRID NOW SUPPLYING BUS 1A4C2
	1449	PARALLEL TO GRID
	2135	OUTPUT BREAKER OPENED AT FULL POWER PER T-ENG-90-09
	2137	STOPPED
3-13-90	0009	STARTED
	0017	OUTPUT BREAKER CLOSED
	0038	F. O. PLACED ON RECIRC. FOR CHEMISTRY
	0257	CAME OUTOF DROOP MODE. OPERATOR IN CONTROL ROOM PLACED BACK IN PARALLEL MODE, AND BEGAN INCREASING LOAD TO 7000 KW
	0301	LOAD > 6800 KW
	0310	IT WAS DETERMINED THAT DG1A SWITCHED TO UNIT MODE AS A RESULT OF SPECIAL SEQUENCER TEST PROCEDURE BY ENGINEERING.
	0502	OUTPUT BREAKER OPEN
	0506	STOPPED
	0509	PLACED IN MAINTENANCE MODE
	1320	~~F.O.~~ TAKEN OFF RECIRC. - RESULT SAT.

NOTE: All starts unless otherwise noted are from the Control Room

F.O.

DG1A

DATE	TIME	STARTED
3-20-90	0820	LOSP OCCURRED - LOST "A" RAT - DG1A TIED AND TRIPPED (SEVERAL ALARM CAME - NOT NOTED IN THE LOG)
	0841	AUTO STARTED AFTER SEQUENCER RESET AND TRIPPED ON LOW JACKET WATER PRESSURE
	0856	EMERGENCY BREAK GLASS START LOCALLY TO RELOVER ~~POWER~~ From STATION ~~BLOCK~~ OUT. D/G IS SUPPLYING THE 4160 KV TRAIN "A" LOAD ~~BLOCK~~
	1029	(RAT "B" ENERGIZED)
	1040	(1BA03 ENERGIZED FROM "B" RAT)
	1155	D/G 1A PLACED BACK IN REMOTE
	1157	(1AA02 ALTERNATE INCOMING BREAKER CLOSED IN PARALLELING IN DG1A)
	1211	LOADED TO 6800 KW TO BE RUN FOR 45 MINUTES DUE TO LOW LOAD OPERATION
	1324	TIE BREAKER OPEN
	1326	SHUTDOWN
	1405	PLACED IN STANDBY READINESS
	1720	D/G DECLARED INOPERABLE
	1741	(RAT "A" ENERGIZED)
	2031	D/G IN MAINTENANCE MODE FOR MOISTURE CHECK BEFORE RUN

DG1A

DATE	TIME	STARTED
3-20-90	2119	STARTED
	2122	OUTPUT BREAKER SHUT AND SYNC. TO AA02
	2205	OUTPUT BREAKER OPEN
	2206	SHUTDOWN
	2223	STARTED
	2228	SECURED
	2233	STARTED
	2254	SECURED
3-22-90	2210	JACKET WATER AND LUBE OIL KEEP WARM SYSTEMS SHUTDOWN TO SUPPORT MAINTENANCE
3-23-90	0227	IN MAINTENANCE MODE FOR MOISTURE CHECK
	0251	MOISTURE CHECK COMPLETE AND PLACED BACK INTO STANDBY
	0254	STARTED FOR MAINTENANCE TROUBLE-SHOOTING
	0259	OUTPUT BREAKER SHUT DNG TIED TO GRID
	0450	PLACED BACK ON STANDBY MODE
	1724	STARTED AND MANUALLY STOPPED FROM C.R.

DG1B

DATE	TIME	STARTED
3-13-90	1440	TAKEN TO LOCAL FOR MOISTURE CHECK
	1512	IN AUTO STANDBY MOISTURE CHECK COMPLETE
	1518	START FOR MAINT. TEST
	1634	TIED TO GRID - NORM INCOMING BREAKER REMOVED TO 1BA03
	1717	LOAD 6800 KW
	1838	RUNNING
3-14-90	0120	BEGAN UNLOADING D/G 1B
	0142	DISCONNECTED FROM THE GRID
	0146	STOPPED
	0149	TOOK TO LOCAL AND PLACED IN MAINT. WILL BE TAGGED OUT
	0401	OPERABILITY TEST COMPLETE AND SAT FOR D/G 1B
3-21-90	2149	FAILED TO START DUE TO INSUFFICIENT FUEL IN FUEL LINES AFTER MAINTENANCE.
	2156	FAILED TO START AGAIN
	2202	STARTED AND GOVERNO VENTED
	2217	STOPPED

NOTE: All starts unless otherwise noted are from the Control Room

DG1B

DATE	TIME	STARTED
03-21-90	2259	STARTED D/G 1B FOR OVERSPEED TRIP TEST
	2301	STOPPED MANUALLY DUE TO LOW LUBE OIL PRESSURE AND HIGH OIL FILTER AP
	2314	STARTED
	2318	STOPPED
3-22-90	0017	STARTED
	0023	STOPPED FOR MAINTENANCE
	0350	IN MAINTENANCE MODE FOR MOISTURE CHECK
	0428	OUT OF MAINTENANCE LOCKOUT. MOISTURE CHECK COMPLETED
	0428	STARTED FOR TESTING
	0429	STOPPED
	0714	LOCALLY STARTED FOR MAINTENANCE AND ENGINEERING TESTING
	1030	LOCALLY SHUTDOWN
	1106	STARTED FROM C.R.
	1112	TIE BREAKER CLOSED
	1135	LOAD > 6800 KW
	1243	TRIPPED ON D/G HIGH LUBE OIL TEMP

DG1B

DATE	TIME	STARTED
1-25-90	0445	MOISTURE CHECK STARTED
	0500	MOISTURE CHECK COMPLETED
	0509	STARTED FOR MAINTENANCE RUN AND SYSTEM OPERATOR NOTIFIED
	0514	TIED TO GRID, OUTPUT BREAKER SHUT
	0539	FULLY LOADED (7000 KW)
	1145	LOAD INCREASE TO 7500 KW
	1150	LOAD REDUCED TO 6800 KW
	1153	TIE BREAKER FOR 100% LOAD REJECTION TEST 1B RUNNING
	1202	STOPPED
	1730	STARTED FOR 4 HR. RUN
	1731	TRIPPED ON LOW JACKET WATER PRESSURE/TURBO LUBE OIL PRESSURE LOW
	1744	STARTED FOR 4 HR RUN
	1755	TIED TO GRID
	1819	LOADED TO 6800 KW
	1842	RUNNING FOR MAINTENANCE RUN
	2222	AFTER LOADING IT WAS DISCONNECTED FROM THE GRID AND DIESEL 1B STOPPED
	2224	PLACED IN LOCAL MAINTENANCE MODE FOR MAINTENANCE
	2257	MOISTURE CHECK STARTED

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IIT DOCUMENT NO. 212

212-F

OFFICIAL TRANSCRIPT OF PROCEEDINGS

Agency: Nuclear Regulatory Commission

Title: Teleconference Between IIT, Licensee, and Region II

Docket No.

LOCATION: Bethesda, Maryland

DATE: Tuesday, April 10, 1990

PAGES: 1 - 31

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REPORTER'S CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission

in the matter of:

NAME OF PROCEEDING: Teleconference

DOCKET NUMBER:

PLACE OF PROCEEDING: Bethesda, Maryland

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.

Marilynn Nations
Official Reporter
Ann Riley & Associates, Ltd.

1 UNITED STATES OF AMERICA

2 NUCLEAR REGULATORY COMMISSION

3 ***

4 INCIDENT INVESTIGATION TEAM

5 Teleconference between IIT, Licensee,

6 and Region II

7 Nuclear Regulatory Commission

8 Operations Center

9 Maryland National Bank Bldg.

10 7735 Old Georgetown Road

11 Bethesda, Maryland

12 Tuesday, April 10, 1990

13 The above-entitled proceedings commenced at 10:00

14 O'clock a.m., pursuant to notice.

15 PARTICIPANTS:

16 A. Chaffee, IIT Team Leader

17 R. Kendall, IIT Member

18 G. West, Jr., IIT Member

19 W. Lynn, IIT Member

20 H. Beacher, Georgia Power

21 L. Ward, Georgia Power

22 K. Burr, Georgia Power

23 C. Miller, Georgia Power

24 J. Aufdenkampe, Georgia Power

25 K. Brockman, NRC, Region II

1 P R O C E E D I N G S

2 [10:00 a.m.]

3 MR. CHAFFEE: It is April 10. It is 10:00 O'clock
4 in the morning. This is the IIT Team. Herb, first, is
5 there anything new to report on the diesel? Any new
6 information?

7 MR. BEACHER: None that I know of right now.

8 MR. CHAFFEE: Okay. The main thing that we wanted
9 to talk to you this morning about was our needs for
10 documentation, based on our understanding of what we do and
11 don't have. And I guess in doing this, let me preface it by
12 saying, Herb, that in all honesty, the team is beginning to
13 become a little concerned that some of the stuff, we have a
14 sense that it is dragging out. We are not sure what is
15 going on. We may be premature in our concern, but as we
16 said before, we need you guys to get us the documentation as
17 soon as possible, and the stuff that we haven't gotten is
18 beginning to cause the team to not be able to complete its
19 activities in a timely fashion. And you need to realize
20 that, that it is beginning to have a negative impact on us
21 being able to complete the stuff that we are doing. So
22 again, what we are going to try to do is what we have been
23 doing the last couple of times with these calls, which is
24 trying to identify those documents that are most critical to
25 us to get, to help ensure that we can get this thing done in

1 a timely fashion.

2 So in doing that, let me just kind of give you a
3 little bit of an overview of some of the types of documents,
4 and then I have some of the guys here and they can go
5 through in detail some of the documents that we are anxious
6 to get.

7 But let me give you sort of a feeling for why we
8 are a little concerned, so that you understand what we are
9 thinking, and to the extent it is incorrect, then you can
10 tell us, and to the extent it is not, you can go do what is
11 necessary to give us the stuff we need.

12 We have been asking for, periodically, the history
13 on the sensors on the diesel. And in fact, finally, I guess
14 it was Thursday or Friday last week, because we were having
15 so much trouble trying to put it all together with the
16 different things that we had gotten -- and some of them are
17 conflicting -- Rick had put together a chart to try to
18 ensure that we got all the information that was pertinent to
19 the sensors and asked you guys to get that filled out. And
20 I think we provided that to you on Thursday or Friday. And,
21 to the best of our knowledge, we haven't gotten it back yet.
22 We need that, because we are having a very difficult time
23 making sure that we do have a correct understanding of what
24 transpired with those diesels. And it is causing
25 significant frustration on the part of the guys on the team

1 that are dealing with that and not having that information,
2 because it makes it very hard to validate that we have a
3 proper understanding of what is going on in the diesel
4 sensors.
5 So, are you guys close to being able to giving
6 that to us?
7 MR. AUFDENKAMPE: John Aufdenkampe. We have
8 worked, ever since you gave that to us, on consolidating
9 that data in the format you have asked for. We worked over
10 the weekend and we will be working, we worked on it
11 yesterday and today, and will be able to fax it up to you
12 tomorrow morning.
13 MR. CHAFFEE: Okay.
14 MR. BROCKMAN: Please send us a copy, too.
15 MR. CHAFFEE: Next is, again we have asked for the
16 diesel starts and stops. And I guess what is true is that
17 we have gotten it in one form, but I guess it wasn't
18 complete, or what we have gotten seems to not be consistent
19 with some other information we have. So we are, I guess we
20 are a little frustrated and a little confused that we cannot
21 seem to get a finalized complete picture on that. And I
22 can't, we can't tell, just because the difference documents
23 we look at are for some reason in conflict with it. But we
24 need to have a licensee's position on what the starts were
25 and what the stops were and we need to get that document.

1 MR. AUFDENKAMPE: Al, again, this is John
2 Aufdenkampe. What I will have Herb do is, we will get with
3 Kenny Stokes and make sure that the diesel log is totally up
4 to date. That is how we keep track of our starts and stops.
5 and we will fax you the latest copy of the diesel log.
6 MR. KENDALL: John, this is Rick Kendall. Maybe a
7 good thing also would be to have Ken give me a call. He has
8 my number. And I can better explain what it is we are
9 trying to get.
10 MR. AUFDENKAMPE: Okay, Rick, we can do that.
11 MR. CHAFFEE: Because I think what Rick wants is,
12 you know, when the diesel started and stopped, how was it
13 started, did you ever have any problems, that sort of stuff.
14 MR. KENDALL: One of the problems we were having
15 was that we were listening on yesterday's call where we
16 understand there has been something like 16 successful
17 starts in a row of the 1-A diesel generator. And we go
18 back, and we try to count them up, and we don't get that
19 many. So somewhere along the line we are missing a few and
20 we want to complete the picture.
21 MR. CHAFFEE: So it sounds like what would be good
22 is, when you have the product, probably call Rick and go
23 over it with him, so that we can make sure we have an
24 agreement.
25 MR. WARD: Al, this is Lewis Ward. Just so we are

all thinking of the same request, is this since March 20th, since day one?

MR. KENDALL: The best thing to do is to have Ken Stokes call me, I think. Paul Kochery prepared a table that discussed the starts between starting with the 20th, starting on March 20th, and going through, I guess, the first phase of troubleshooting. But it does not go beyond that point.

MR. WARD: Okay. So it is 3-20 up through today.

MR. CHAFFEE: I am going to say something here, and Rick, you can correct me. We want to know all the diesel starts and stops since the time the diesel went into this outage because we want to understand what your testing is as well. Now, as far as the stuff prior to the outage, I guess what is true there is that is a secondary priority. First, let's get the stuff that takes the outage up to a current day and then once we've got that and we've digested that, then the secondary priority, we can go back and look at the stuff prior to that; is that what you want, Rick?

MR. KENDALL: I had not asked for starts prior to the outage.

MR. CHAFFEE: So then let's get the stuff that goes from the outage on so we can get a clear picture of what has happened to that diesel since all the outage work was done to it.

1 MR. WARD: Okay.

2 MR. KENDALL: I still think what would be good is
3 for Ken Stokes to give me a call; because I can tell him the
4 starts that I have and then he can from that, or I don't
5 know if Ken is the right person, but whoever, and then from
6 that point we can work on.

7 MR. CHAFFEE: The next thing we need is, for the
8 diesel, is the alarm and trip setpoints for each of the
9 alarms and trips for the diesel generator. And we have
10 gotten some of that information in the form of some of the
11 drawings. But in looking at that, we have found that there
12 is some conflicting information between some of the training
13 documents and some of the drawings and some other
14 documentation.

15 So what we have concluded is that we need to get
16 from you guys what your position is in terms of what the
17 setpoints are for the alarms and trip setpoints so we know
18 what is supposed to be the right answer so that as we look
19 at other documents, if they conflict, we can identify those
20 conflicts, I guess more for just making sure we have the
21 right answers, but also I'm sure you would be interested in
22 them. So we need those. And as I understand it, we have
23 asked for that. I guess we asked for it last week.

24 MR. AUFDENKAMPE: Al, this is John Aufdenkampe.
25 With respect to document requests, we are working very hard

1 to get them. But understand that the people that have to
2 put this information are the same people that have been
3 testing the diesel and involved in the phone calls, and it
4 is somewhat difficult to get it all together in a timely
5 fashion to support you. But we will continue to work on it
6 and get it you as soon as we possibly can.
7 MR. CHAFFEE: I have a question. Is it possible
8 that you can get some help from your corporate office to
9 come down and help with some of this?
10 MR. AUFDENKAMPE: The corporate office was down
11 here helping with it. Ken Burr has finally gone back and --
12 I don't know. Ken, is Bill Schnalt still down here?
13 MR. BURR: No. he has gone back.
14 MR. CHAFFEE: Okay. I guess I understand, and I
15 appreciate you guys doing the best you can. And all I'm
16 trying to -- Well, you understand what I'm saying. We are
17 beginning to get in trouble. We are beginning to, maybe I'm
18 crying, I'm saying this at the point where we were just
19 about to get the rest of it, so it is all not going to be a
20 problem. But if another week marches on here and we haven't
21 gotten some of this stuff, I am going to be forced into the
22 position where I am going to have to scream bloody murder.
23 And I don't want to get there, and I know you don't want me
24 to get there.
25 MR. BEACHER: This is Herb Beacher again. I have

1 a box that I am working on today that I will be sending out,
2 and there are some diesel materia in that box.
3 MR. CHAFFEE: Okay. So what I'm saying is, I am
4 not accusing you guys of not doing your best. And I'm not
5 saying that you are not utilizing the resources you have
6 there. What I am proposing, though, is that, if in your
7 minds it looks like you are not going to get us some of the
8 stuff we are talking about, and it is going to be many days,
9 then what I am saying is that you should be in the position,
10 you should recognize that you ought to be considering
11 calling for other help.
12 MR. BEACHER: I understand.
13 MR. CHAFFEE: I also understand we're going to be
14 getting copies of the videos that were taken for the diesel
15 starts and we're anxious to get those, again to help us
16 assist in our evaluation of the diesels.
17 I guess my impression was that we were probably
18 going to see those about a week after we left the site. Is
19 that right?
20 MR. AUFDENKAMPE: We will get you those rapidly.
21 That should be easy.
22 MR. CHAFFEE: Okay. Another thing we asked for
23 and we asked for it on I think it was -- I don't know. We
24 asked for I guess it must have been the first day we got
25 back here so I guess it was last week on Tuesday or

1 Wednesday we asked for -- we were going to have Gene Trager
2 talk to each of the operators, each of the people with the
3 diesel generator locally, and determine what the pressure
4 was after each of the starts, then put together a matrix of
5 that.
6 I talked to George Bockhold. When he understood
7 what we wanted he said he'd go and get that stuff pulled
8 together for us and provide it to us. We haven't seen that
9 yet and we need that because one of the things Rick is doing
10 is trying to make sure we have an understanding of what went
11 on in the air start system for the diesel, so again I don't
12 see that as something that would take a lot of time.
13 I am not sure why we're almost a week down the
14 road and don't have it, but in any case we're anxious to get
15 that as well.
16 MR. WARD: This is Lewis Ward. I heard George
17 make that commitment to you the other day but just to make
18 sure that everyone on here understands what you're asking
19 for, you want people to recall what they saw on the air
20 pressure gauges, everybody who may have looked at them
21 during the event?
22 MR. CHAFFEE: Correct.
23 MR. AUFDENKAMPE: This is John Aufdenkampe. What
24 I have is five names of people that Gene wants to talk to.
25 MR. CHAFFEE: Okay, that's fine. What George had

1 requested was that -- I guess what I would like to have done
2 is, well, we can do it two ways.
3 George Bockhold was of the opinion that you guys
4 would contact each of those guys and find out what they saw,
5 put it together in a matrix and send it up to Gene.
6 Gene would just as soon have each of those guys
7 call him and get the information that way.
8 I guess at this point I just want to get the
9 information. Once we get the information -- if fact I guess
10 if I was in your shoes what I would do is go contact the
11 guys, find out what they say and put it in a matrix, send it
12 to Gene and if Gene wants to talk to them, you know, give
13 him a number and a time or ask the guys to give him a call
14 and he can verify it that way.
15 Again, I see it as a five minute effort for each
16 of the people involved in terms of talking to Gene and I
17 guess I don't see it as a big problem in terms of gathering
18 the information. It's just it's taking a lot of time to get
19 it and that's got me a little worried.
20 MR. AUFDENKAMPE: Okay.
21 MR. CHAFFEE: Let's go on a little bit more.
22 In a different area than the diesels, currently
23 the work that Warren and Bill Jones are doing is being
24 impacted by the fact that there is a number of different
25 things that they have asked for. At this point we haven't

1 gotten them and we asked for them a week ago, but they are
2 things like RCS volume and heat exchanger volumes or
3 capacities, ConnoSeal drawings -- trying to understand what
4 the cross-sectional area of the Conno-Seals is, accumulator
5 level during the event -- just facts and specifics.
6 Again, we're a little confused why that stuff is
7 -- you know, some of it again we probably don't understand
8 what it takes to get it but some of that stuff to us would
9 seem fairly easy to gather. We're not sure why we are not
10 getting some of it.
11 In the request that we made there is a whole
12 litany of things that were asked for and in fact Warren is
13 here and maybe he wants to just touch on a few of them but
14 again it's the same thing -- some of these things that we
15 wouldn't think are hard to get, we haven't gotten them, is
16 our impression.
17 MR. AUFDENKAMPE: This is John Aufdenkampe again.
18 As far as Warren's list goes, there are four or
19 five things on there that are relatively easy to get. The
20 rest of Warren's stuff is going to be very difficult. We
21 have already gotten engineering estimates on doing it and
22 it's going to run on the order of 400 engineering man-hours.
23 The ConnoSeal drawings are proprietary
24 Westinghouse drawings and we're going to have to go procure
25 those from Westinghouse and send them under cover letter

1 that this stuff is proprietary and, you know, how you handle
2 all that documentation.
3 Warren's list is probably the most difficult list.
4 MR. CHAFFEE: Then I guess the thought that occurs
5 to me, let me propose something. Would it be beneficial to
6 have somebody on your staff talk to Warren and explain to
7 him what is involved in getting this stuff so that we can
8 have an understanding of it so we can factor that into how
9 we deal with this stuff in terms of, you know, what we can
10 anticipate in terms of when we'll get it and what the impact
11 is of our request and decide how we want to go from there?
12 MR. AUFDENKAMPE: Yes. I can do that.
13 MR. CHAFFEE: Okay. Is there a time when you guys
14 would like to do that?
15 Do you want to do it after this meeting or later
16 today?
17 MR. LYON: We can do that at your convenience. We
18 also have RHR and related procedures discussion that we want
19 to go through some time. We could set them up
20 consecutively, however is easier. I don't want to saddle
21 you with a whole bunch of stuff and it sounds to me like we
22 ought to be talking about it and see what we can work out.
23 MR. AUFDENKAMPE: Okay, Warren. This is John
24 Aufdenkampe again. I've got a meeting from 11:00 to 12:00
25 and one from 2:00 to 3:00 but other than that I'm free.

1 MR. LYON: Pick a time.

2 MR. AUFDENKAMPE: 1:00 today.

3 MR. LYON: 1:00 you got. Are you going to call

4 us? Shall I call you?

5 MR. BEACHER: I am going to call you because --

6 this is Beacher -- I have the RHR conference starting at

7 1:00 also.

8 MR. LYON: Okay, the RHR is at 1:00, then we need

9 to pick another time for the other.

10 MR. AUFDENKAMPE: Can we do those both together,

11 Warren?

12 MR. LYON: Sure, if that is what you would prefer.

13 That's fine. We'll tackle the whole business all at once.

14 MR. AUFDENKAMPE: That would probably be the

15 easiest.

16 MR. LYON: And you will call me, correct?

17 MR. AUFDENKAMPE: We can have our RHR first and

18 the people that don't need to be in there for the rest of

19 the stuff after we get through that can leave and we'll

20 continue with our discussion.

21 MR. LYON: Fine.

22 MR. CHAFFEE: Okay. Carmen, did you have any

23 specific documents that you -- oh, I know what we talk

24 about.

25 The other issue is -- well, wait a second. Before

1 we go on to these configurations let me give Rich a chance
2 to -- go ahead, Rick. You had something?
3 MR. KENDALL: Herb, I've got some other documents
4 I'd like to address and it sounds like this may be stuff
5 that's in that box you're going to send up.
6 I had asked for the control circuit schematics for
7 the needle generator output breakers for the 1-A and 1-B
8 diesels and also for one line diagrams for the 480 volt
9 switch gear supplied from bus 1AA02 AND 1BA03.
10 MR. BEACHER: Let me go through the list.
11 I think you already have those, Rick.
12 MR. KENDALL: I do not. Maybe there has been a
13 disconnect between Sheri and whatever.
14 MR. BEACHER: There is a drawing 1X3DAADO2A&B,
15 1X3DAADO3A&B.
16 MR. CHAFFEE: Give those numbers again, Herb?
17 MR. BEACHER: 1X3DAADO2A&B --
18 MR. CHAFFEE: All right.
19 MR. BEACHER: 1X3DAADO3A&B.
20 MR. CHAFFEE: Okay. Either I don't have those
21 diagrams or I've got them and they don't show the
22 information but I'll go back and look and then I'll give you
23 a call after this call.
24 MR. BEACHER: Okay.
25 MR. KENDALL: Also I believe you were going to

1 send up a P&ID for the jacket water cooling system.

2 MR. BEACHER: Yes.

3 MR. KENDALL: What you wanted, right, Rick, a

4 bigger one? I think we sent you up one originally.

5 MR. KENDALL: Well, what I got was an 8 1/2 by 11

6 one that's difficult to read that was given to me informally

7 by Sheldon or Young the last day we were down there.

8 I have got an idea but I'd like a full sized one.

9 MR. BEACHER: Okay.

10 MR. KENDALL: There is another piece of

11 information that I need and this may be something that it

12 would better to have Ken Burr or Ken Stokes or somebody talk

13 to me about.

14 I have the procedures for some of the

15 troubleshooting that was done on the 1A diesel.

16 I have a procedure for the under-voltage test.

17 I have another procedure for the bubbler test and

18 the multiple-start test.

19 What I don't have is the filled-out data sheets or

20 completion sheets, whatever they are called, that take down

21 the results of the tests.

22 What I have got is I know what was done generally

23 during the tests but I don't have any test results.

24 All the test results we have so far are just

25 things that have been passed on in meetings or by

1 discussions between engineers and that type of thing and it
2 would really be helpful to me I believe if I could get the
3 filled-out completion sheets for those tests, or data
4 sheets.
5 MR. BEACHER: Did you telecopy down yesterday?
6 MR. KENDALL: What was that?
7 MR. BEACHER: The same request, did you telecopy
8 down yesterday afternoon? I got a request from you
9 yesterday.
10 MR. KENDALL: Okay -- no. That -- I don't believe
11 so, Herb. I believe that request and again I'll go back and
12 give you a call after this call, but I believe that request
13 was for specific data sheets from the 18 month or 36 month
14 end-of-cycle diesel generator inspection that was done.
15 MR. BEACHER: That was sitting in the box, yes.
16 MR. KENDALL: Okay. I'll tell you what. I'm
17 going to go back upstairs, and I'll wait a few minutes until
18 this call is finished, and then I'll give you a call and we
19 can discuss the things to make sure we don't have any
20 duplication in there.
21 MR. CHAFFEE: I think what he's just talking
22 about, Herb, is what Rick is anxious for, it's something we
23 talked to Paul about before we left the site, which was that
24 the -- I guess it's a maintenance work order that documents
25 all the stuff they did and found during the testing. We

1 don't have that document yet, is my understanding, and
2 that's the document that we're extremely anxious to get our
3 hands on so we can go through and see exactly what was
4 written down and what was seen, again, just to be able to
5 make sure there's not some information that exists that we
6 don't know about.
7 The reason why we have a little anxiety there, I
8 think an example of that is two other items I wanted to
9 bring up with you. One is that in looking at a document
10 that Rick had that showed some of the outage activities on
11 the diesel, we noticed that on March 23rd, after the event,
12 you guys went into the diesel and cut a half an inch off of
13 the left fuel rack, and on the 22nd, two days after the
14 event, there is some entry in there about the fact that the
15 alarms on the 1A diesel generator wouldn't work. We don't
16 understand what those are.
17 My hope is that there's nothing there, but, you
18 know, in seeing those things in this document, it got me a
19 little nervous. Can you tell me what those two things are
20 talking about, why they had to cut a half inch off of fuel
21 rack after the event, and what this means about the fact
22 that the diesel generator alarms wouldn't come in after the
23 event? Do you understand what I'm talking about?
24 MR. BEACHER: I'm not familiar with that. This is
25 Herb Beacher. Ken, do you know anything pertaining to that?

1 Ken Burr.

2 MR. BURR: I'll have to go back to the work order

3 and see exactly what he's talking about.

4 MR. BEACHER: Yes.

5 MR. CHAFFEE: Okay.

6 MR. BEACHER: Do you have copies of the work order

7 that did that?

8 MR. CHAFFEE: I don't know. Where we came across

9 it was there's this big, huge piece of paper that lists all

10 the critical path items for the diesel generator through the

11 outage, and there's two entries down there after the event

12 that highlighted these two specific things. There's cutting

13 off a half inch off the left fuel rack, and that the alarms

14 would not come in on the 1-A diesel generator.

15 I'm sort of suspecting they can be nothing of

16 significance, and if that's the case, okay. But, you know,

17 if it turns out that there was something known to be wrong

18 with the alarm system for the diesel generator A, that would

19 concern me, that, you know, that we didn't know about that.

20 So, in any case, why don't you guys look at it?

21 Hopefully, it'll be nothing. It's just, you know, as we

22 look at documentation, we find that there are things that we

23 don't understand, and we'll get them resolved. But as far

24 as the maintenance work order for that, I don't have -- I do

25 not know, and I suspect we do not have that information.

1 MR. BEACHER: Okay. So you would like a copy of
2 the work order?
3 MR. CHAFFEE: Yes, and, you know, before that,
4 we'd like to know what those two things mean.
5 MR. KENDALL: Herb, I'll tell you what, why don't
6 you call back up here once this call is over, and you can I
7 can talk, because there's a lot of stuff that I do have, and
8 if the maintenance work order includes everything, there's
9 probably a lot of that we don't need.
10 MR. BEACHER: All right.
11 MR. KENDALL: I'll try to go down and tell you
12 what we have and what we don't have. It gets very
13 confusing, I know.
14 MR. BEACHER: Yes.
15 MR. KENDALL: And I appreciate that.
16 MR. CHAFFEE: Okay. Is that it? Okay. Now we
17 want to talk about -- Garmon has a topic which is on the
18 calculation that was done for this truck and this explosion.
19 Go ahead, Garmon.
20 MR. WEST: Before we get into that, let me just
21 get some sense of whose on the other end. The evaluation
22 that I received, it came through Allen Mosbow. Is he there?
23 MR. BEACHER: He's not.
24 MR. WEST: Is there anyone there that knows
25 anything about the evaluation on the potential explosion in

1 the switch yard?

2 MR. AUFDENKAMPE: This is John Aufdenkampe.

3 Lewis, that would have to come from your end because SCS did

4 that.

5 MR. WARD: Yes. That was done in the corporate

6 office, but I'm personally not familiar with it.

7 MR. WEST: Okay. It was -- you're right, it was

8 done in your corporate office. I'm looking at the up-front

9 memo on this. It was sent from Cliff Miller?

10 MR. AUFDENKAMPE: Okay.

11 MR. WEST: And it was requested by Phil Burwinkel

12 and Allen Mosbow. I actually received it from Allen Mosbow.

13 But essentially, what we need to do is hone in on what we

14 think we need that we don't see is contained in the

15 evaluation. I can say that, but I was just sort of

16 canvassing who was on the other end. It's no need to get

17 into it if you don't have anyone there that can --

18 MR. CHAFFEE: Let me just describe to you what it

19 is about the analysis that is causing us a problem.

20 Basically, the analysis takes a look at the combined effects

21 of a potential explosion as well as a fire emanating from

22 the combustible materials that are in the truck.

23 In doing that, the analysis sets up six different

24 scenarios to consider the severity of the results of the

25 explosion and fire. In doing that, the way the analysis was

1 done is that it set up some worst-case scenarios and some
2 other scenarios that are not worst-case.
3 What it did in the non worst-case scenarios is it
4 would make statements like, "This non worst-case scenario is
5 bounded by the worst-case scenario," but it wouldn't tell us
6 what would happen in the non worst-case scenario.
7 One of the problems is, is that the following
8 scenario is a non worst-case scenario, and therefore they
9 haven't told us what would happen, but it's the one of
10 interest to us, and that is the event where the truck with
11 the materials that were in it in the location that hit the
12 transformer insulator, in terms of what would that have done
13 in terms of taking out components, the analysis doesn't tell
14 us. It simply says it's bounded by a worst-case scenario
15 which is something different than what actually happened.
16 The problem we're having is we'd like to know what
17 would have been expected to happen if the truck with the
18 materials it had in it in the location it was at when the
19 event occurred, if that had been ignited and it had caused
20 an explosion, what would have happened.
21 The report doesn't tell us that. It tells us
22 indirectly. They say that it's something less that his
23 worst-case scenario. We want to know what the most
24 reasonable expected results would have been for the scenario
25 that actually occurred.

1 MR. WEST: In summary, if you will, in the
2 evaluation, there is an Event 2, and I think that's the one
3 that speaks to the actual location of the truck, the actual
4 inventory of the truck, and what we are groping for there
5 and what we'd like to be able to come up with would be a
6 definitive on what would have been the effect if there had
7 been an explosion.
8 MR. WARD: We'll talk to Cliff Miller about
9 getting that provided. This is Lewis Ward.
10 MR. CHAFFEE: Okay. So, Lewis, if you can get
11 Cliff Miller to contact Garmon --
12 MR. WARD: Cliff just stepped in, but I just
13 committed him to doing something he didn't know about.
14 MR. CHAFFEE: Okay.
15 MR. WARD: Maybe you can answer this, Cliff. Just
16 a second.
17 MR. CHAFFEE: Okay.
18 [Pause.]
19 MR. MILLER: Let's see. Who am I speaking to
20 here?
21 MR. CHAFFEE: My name is Al Chaffee, and Garmon
22 West, and what is your name?
23 MR. MILLER: Cliff Miller. I'm Manager of
24 Engineering at the Vogtle project.x
25 MR. CHAFFEE: Okay.

1 MR. MILLER: And the question, as Lewis gave to
2 me, was that you're interested in -- I believe we had
3 transmitted some information to you while you were on site
4 that showed six scenarios regarding fire or explosions as a
5 result of the fuels truck?
6 MR. WEST: That's correct.
7 MR. MILLER: The question relates to Scenario 2,
8 which had to do with the actual event, and in the write-up,
9 we said that it's bounded by another analysis, but what
10 you're asking is what is the actual effect of that?
11 MR. WEST: Precisely.
12 MR. CHAFFEE: Correct.
13 MR. MILLER: To answer that verbally to you over
14 the telephone, at this time, I'll have to get some
15 additional information because that was not included in the
16 write-up, and would be happy to call you back or prepare
17 something written to send to you.
18 MR. WEST: Could you do both? Could you send it
19 to us and could you give me a call? This is Garmon West.
20 MR. MILLER: Yes, sir, we'll do that. We'll have
21 to get a phone number from you, that's all.
22 MR. WEST: Okay. Herb, do you have my phone
23 number? If not, you can call Cherie. Do you have a number
24 for Cherie Siegel?
25 MR. BEACHER: Yes. Let me look it up right quick.

1 Okay. Area Code (301) 492-8802.

2 MR. WEST: Thank you. Okay. That's fine. You

3 can call me on that number. That's not in the area where

4 I'm sitting, but I'm not sitting there right now and I don't

5 know the number right off top.

6 MR. MILLER: Mr. West, what I'd like to do is as

7 quickly as I know how long it's going to take me to get

8 something written, I will call you and give you that time.

9 MR. WEST: Okay. Let me give you my actual

10 number, if you will. It's (301) area code, 951-6034. That

11 was Cliff Miller, right?

12 MR. CHAFFEE: In fact, Herb, this might help you

13 guys in having people call us. Let me give you the numbers

14 of our people here in the response center where they can

15 call. In theory, these numbers go right to the individual.

16 If that doesn't work, then just use Cherie's number, but let

17 me just give you the numbers here.

18 My number is (301) 492-7229.

19 MR. BEACHER: Okay.

20 MR. CHAFFEE: Bill Lazarus' number is (301) --

21 these are all (301), and Bill's is 951-6022.

22 MR. BEACHER: Repeat those last four. Six-six-

23 zero-two?

24 MR. CHAFFEE: Six-zero-two-two.

25 MR. BEACHER: Okay.

1 MR. CHAFFEE: And I guess, for Mike Jones, Bill
2 Jones and Warren Lyon, use the same number as you had for
3 Bill Lazarus, 6022. The same thing for Paul Dictz, 6022.
4 Gene Trager is at 6034, and so is Garmon West, 6034.
5 MR. BEACHER: Okay.
6 MR. CHAFFEE: And Rick Kendall and Harvey Wyckoff
7 are at (301) 492-7318.
8 MR. BEACHER: Okay.
9 MR. CHAFFEE: And then the number you should have
10 for Cherie is (301) 951-6020?
11 MR. BEACHER: No. Repeat that number for Cherie
12 again.
13 MR. CHAFFEE: (301) 951-6020.
14 MR. BEACHER: Okay. I got you. Yes.
15 MR. CHAFFEE: Okay. So that ought to give you
16 some numbers where you -- if you're having trouble getting
17 us, maybe that'll help.
18 Okay. Again, I think, Herb, the thing that would
19 help if we sort of start doing it today is for -- if you
20 know who was requesting the document, if you could get the
21 people that are providing it with the guy who's requesting
22 it and could give him a feeling for, you know, where it's
23 going to take some time and why, that might help reduce some
24 of the anxiety level of the people up here. That might also
25 enable us to work together in terms of scheduling our

1 activities to coincide when you can get the stuff to us so
2 that we can try to pull this thing off.
3 MR. BEACHER: All right.
4 MR. CHAFFEE: I guess that is all we have. Do you
5 guys have anything for us?
6 MR. BEACHER: Yes. In the box of material that I
7 will be sending out today, a listing of everything off this
8 list that you guys already have, and it will be denoted what
9 you don't have.
10 MR. CHAFFEE: Okay.
11 MR. BEACHER: Later.
12 MR. WEST: Herb, do you know if the tapes are
13 going to be in there on the diesel tests or not?
14 MR. BEACHER: I thought I would try to get the
15 tapes in there, too.
16 MR. WEST: Okay. That would be a big help.
17 MR. CHAFFEE: Okay. Also, when I was getting
18 ready to leave the site, you were going to give me these two
19 big, huge tapes for the ERDS thing. And I know that we are
20 now in the process of getting part or all. I'm not sure if
21 we have all the different graphs from that or not. Are
22 those tapes on the way here or did you guys decide to hold
23 onto them, or do you know?
24 MR. BEACHER: The tapes were mailed out, I would
25 verify this, but I think they were mailed Friday, at the

1 latest. Thursday afternoon, Friday. You should have those.
2 MR. CHAFFEE: Okay. Well, then, I will be looking
3 for them and if they don't come in the next couple days,
4 I'll be in touch so that you know that we haven't gotten
5 them. Okay.
6 MR. BEACHER: Okay.
7 MR. AUFDENKAMPE: Al, this is John Aufdenkampe. I
8 think that is the very first thing we sent. We'll put a
9 tracer on it from this end.
10 MR. CHAFFEE: Okay. And I will go verify again
11 with my people that we haven't gotten it.
12 MR. AUFDENKAMPE: Okay.
13 MR. CHAFFEE: Okay. Anything else?
14 MR. AUFDENKAMPE: Al, this is John Aufdenkampe
15 again. What I would like, what I plan on doing is by the
16 end of this week getting you everything that you have asked
17 for, and letting you know. That would be my plan.
18 MR. CHAFFEE: I think you cut out in the middle.
19 You said you are planning on getting everything to us by the
20 end of the week, or what?
21 MR. AUFDENKAMPE: Telling you why we can't get it
22 to you.
23 MR. CHAFFEE: Okay. I understand. Okay. That
24 would be very helpful.
25 Region II, did you have anything?

1 [No response.]

2 MR. CHAFFEE: I think we lost him. Okay. Thanks,

3 John. Do you guys have anything else?

4 MR. BROCKMAN: Anything you need from us?

5 MR. CHAFFEE: No. Okay. John, do you have

6 anything else?

7 [No response.]

8 MR. BEACHER: I believe they have gone away.

9 MR. CHAFFEE: Okay. Well, I guess they don't have

10 anything else. Okay. Bye.

11 MR. WARD: This is Lewis Ward. I think we are the

12 only ones left on.

13 MR. CHAFFEE: Al Chaffee still here.

14 MR. WARD: Are we going to have this call again

15 tomorrow morning?

16 MR. CHAFFEE: Yes. Al Chaffee is here. Can you

17 guys hear me?

18 MR. BEACHER: I hear you, Al. This is Ken.

19 MR. CHAFFEE: Lewis?

20 MR. WARD: Yes. Off and on.

21 MR. CHAFFEE: Can you repeat your question?

22 MR. WARD: Are we going to have this call again

23 tomorrow morning, same time?

24 MR. CHAFFEE: Yes.

25 MR. WARD: Okay.

1 MR. CHAFFEE: In fact, Lewis, there is one more
2 thing. And that is the testing of the quarantine switches
3 and the other switches. I understand that you talked to
4 Rick on Friday and quite a bit on Saturday. Where do you
5 guys stand in terms of getting together a test procedure
6 that we can look at and starting to do testing?
7 MR. BEACHER: I have Ken Burr back in the office
8 this morning. I have a proposal from Wylie Lab. I have a
9 general test sequence that they have proposed on the
10 quarantine switches. We intend to come up with a test
11 outline on new switches first. Per our conversation the
12 other day, I think what we wanted to do is look at a couple
13 of new ones to get some general feel, data on the
14 reliability of some new ones as they lead in for evaluating
15 the quarantine switches.
16 MR. CHAFFEE: Okay. That sounds good. So suppose
17 that there might be something that we can look at either the
18 close of business today or tomorrow morning?
19 MR. BEACHER: I'm certainly shooting for that.
20 Hopefully, by in the morning this time, we will have
21 something, yes.
22 MR. CHAFFEE: Okay. Great. Thank you.
23 MR. BROCKMAN: Al Chaffee.
24 MR. CHAFFEE: Yes, Ken.
25 MR. BROCKMAN: Are you by your phone?

Interoffice Correspondence

Georgia Power

DATE: January 2, 1991

RE: **Open Communication**

FROM: W. B. Shipman

TO: Vogtle Employees

Recent news reports have focused on litigation between Allen L. Mosbaugh, a former employee at this plant, and Georgia Power Company. In a Department of Labor (DOL) proceeding, Mr. Mosbaugh contends that he was placed on administrative leave and subsequently terminated from employment as a result of his engaging in "protected activity," including submission of safety concerns to the Nuclear Regulatory Commission. In that litigation, Georgia Power denies these assertions; Mr. Mosbaugh was terminated from employment after it was learned that he had surreptitously tape recorded conversations with other plant workers and with NRC personnel over a substantial period of time. Georgia Power Company, therefore, intends to vigorously defend the DOL action brought by Mr. Mosbaugh.

I want to emphasize to all Vogtle employees that Georgia Power's concern about Mr. Mosbaugh's surreptitious conduct is because of its negative effect on open communications at this plant, and <u>not</u> because of his raising of safety issues. Open and frank communications are essential in our industry. When Georgia Power learned that Mr. Mosbaugh had concerns that he had not disclosed, he was directed to submit his concerns to the NRC in July, 1990. No adverse action was taken as a result of the submission of these or other concerns. Indeed, Mr. Mosbaugh had been selected and assigned to Senior Reactor Operator training and was enrolled in the "Manager in Training" program at the time that his secret tape recording became known.

Georgia Power is fully cooperating with the NRC's review of Mr. Mosbaugh's concerns and allegations. Interviews of plant personnel and review of documents have been conducted and additional interviews may be requested by the NRC. Employees are reminded that Georgia Power encourages individuals to cooperate with the NRC in its investigations, even though individuals have a legal right to decline to be interviewed. Employees also are reminded that they have the right to have a lawyer, co-worker or friend of his/her choice at any on-site or off-site interview with governmental investigators. If requested, management will arrange for an attorney to confer with you before an interview and to represent you during the interview. This will be at no cost to you. At no time are you restricted from your communications with NRC personnel.

I encourage and request all of you to maintain openness in your communications and to promptly report and help resolve any concerns about safety or operational issues. In addition to your "chain of command" reporting of concerns, the Quality Concerns Program (telephone number 1-800-225-2055) will accept anonymous allegations (numerous drop boxes exist throughout the plant, or the concerns can be submitted by telephone or personally by contacting Bill Lyon--Quality Concerns Coordinator). The Nuclear Regulatory Commission Resident Inspectors were recently highlighted in the Vogtle Voice and also may be contacted (extension 4116). The NRC also maintains an off-site telephone number, 301/951-0550 (call collect).

Please remember, the identification of issues which may adversely affect safety or health is a fundamental responsibility of each employee. In any complex human endeavor, such as running these plants, technical deficiencies or weaknesses may be identified. Only by your identification of such problems can they be resolved and help assure our foremost goal -- safe operation of the Vogtle Electric Generating Plant.

W B Shipman

WBS/tdm

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August 30, 1990

W. G. Hairston, III
Senior Vice President
Nuclear Operations

JID 9/10
KUM
MVA

ELV-02059
0579

Docket No. 50-424

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Atlanta, GA 30323
ATTN: Mr. S. D. Ebneter

Dear Mr. Ebneter:

VOGTLE ELECTRIC GENERATING PLANT
CLARIFICATION OF RESPONSE TO CONFIRMATION
OF ACTION LETTER

By letter dated April 9, 1990 (ELV-01516), Georgia Power Company (GPC) responded to a Confirmation of Action Letter dated March 23, 1990. In that letter and in our meeting notes, GPC reported that Diesel Generator (DG) 1A had been started 18 times and DG 1B had been started 19 times with no failures or problems between March 20 and April 9, 1990. Similar information was reported in Revision 0 of Licensee Event Report (LER) 50-424/1990-006 dated April 19, 1990 (ELV-01545). As reported in our telephone calls to the NRC, we subsequently discovered that this information was in error.

In Revision 1 to LER 50-424/1990-006 dated June 29, 1990 (ELV-01729), GPC attempted to clarify the correct number of DG starts occurring in this time period by using regulatory guide terminology (i.e., valid vs. successful starts). This revised LER accurately reports the number of valid DG starts during the period of March 21 through June 7, 1990. However, during a recent NRC inspection it was pointed out that the revised LER did not adequately clarify the numbers in the April 9th letter.

The confusion in the April 9th letter and the original LER appear to be the result of two factors. First, there was confusion in the distinction between a successful start and a valid test. For the purpose of this letter, a start was considered successful when the DG was started and either ran or was intentionally shut down due to testing in progress, as identified on the attached tables. Our use of the term "successful" was never intended to imply a "valid successful test" in the context of Regulatory Guide 1.108. Many start attempts were made to test the DG's 1A and 1B using applicable operating procedures. These procedures and data sheets do not contain criteria for determining if a start is successful which resulted in determinations of success which were inconsistent with the above definition. Second, an error was made by the individual who performed the count of DG starts for the NRC April 9th letter.

Georgia Power

The purpose of this letter is to correct the figures related to the number of DG starts reported in the April 9th letter. Attached are tables 1 and 2 which summarize the DG starts for the period indicated. For DG 1A, there was a total of 31 start attempts and 29 of these attempts were considered successful after the two failures associated with the March 20 event. For DG 1B there was a total of 29 start attempts and 21 of these attempts were considered successful. Further, for DG 1B there were 12 successful sequential starts.

Sincerely,

C. K. McCoy FOR

W. G. Hairston, III

WGH,III/NJS/gm

Attachments

xc: Georgia Power Company
Mr. C. K. McCoy
Mr. G. Bockhold, Jr.
Mr. R. M. Odom
Mr. P. D. Rushton
NORMS

U. S. Nuclear Regulatory Commission
Document Control Desk
Mr. T. A. Reed, Licensing Project Manager, NRR
Mr. B. R. Bonser, Senior Resident Inspector, Vogtle

TABLE 1

DIESEL GENERATOR 1A

START No.	DATE	SUCCESS	RUN TIME	UNPLANNED TRIP	DISCUSSION
139	03-20-90	No	1 min	Yes	Failure to maintain load.
140	03-20-90	No	1 min	Yes	Failure to maintain load.
141	03-20-90	Yes	4 1/2hr	No	Manual start, load maintained.
142	03-20-90	Yes	45 min	No	Normal reserve auxiliary transformer swap method.
143	03-20-90	Yes	5 min	No	Observation run.
144	03-20-90	Yes	20 min	No	Observation run.
145	03-23-90	Yes	60 min	No	Observation run.
146	03-23-90	Yes	0 min	No	Started wrong diesel generator.
147	03-29-90	Yes	50 min	No	UV test start #1.
148	03-30-90	Yes	2 hr	Yes*	Bubble test #1, high temperature jacket water sensor vented.
149	03-30-90	Yes	6 min	No	Trip simulation test.
150	03-30-90	Yes	6 min	No	Trip simulation test.
151	03-30-90	Yes	3 min	No	Trip simulation test.
152	03-30-90	Yes	6 min	No	Trip simulation test.
153	03-30-90	Yes	4 min	No	Orifice modification functional test.
154	03-30-90	Yes	10 min	No	Orifice modification functional test.
155	03-31-90	Yes	2 min	No	Orifice modification functional test.
156	03-31-90	Yes	3 min	No	Orifice modification functional test.
157	03-31-90	Yes	10 min	No	Bubble test #2
158	03-31-90	Yes	1 min	No	Sensor trip timing test.
159	03-31-90	Yes	1 min	No	Sensor trip timing test.
160	03-31-90	Yes	2 min	No	Sensor trip timing test.
161	03-31-90	Yes	1 min	No	Sensor trip timing test.
162	03-31-90	Yes	75 min	No	Sensor trip timing test
163	03-31-90	Yes	27 min	No	UV test start #2.
164	04-01-90	Yes	1 1/2 hr	No	Normal surveillance test.
165	04-06-90	Yes	1 min	No	Jacket water temperature test.
166	04-06-90	Yes	1 min	No	Jacket water temperature test.
167	04-06-90	Yes	10 min	No	Jacket water temperature test.

TABLE 1 (CONTINUED)

DIESEL GENERATOR 1A

START No.	DATE	SUCCESS	RUN TIME	UNPLANNED TRIP	DISCUSSION
168	04-06-90	Yes	2 1/2 hr	No	LOSP trip modification functional test.
169	04-09-90	Yes	1 3/4 hr	No	Normal surveillance test.

* Unit tripped during bubble testing due to one sensor venting and another sensing line being disconnected for testing. This is further described in NUREG-1410.

TABLE 2

DIESEL GENERATOR 1B

START No.	DATE	SUCCESS	RUN TIME	UNPLANNED TRIP	DISCUSSION
120	03-21-90	No	0 min	No	Post-maintenance run, prime fuel lines.
121	03-21-90	No	0 min	No	Post-maintenance run, prime fuel lines.
122	03-21-90	No	15 min	No	Post-maintenance run, adjust governor.
123	03-21-90	No	2 min	No	Post-maintenance run, fuel oil delta pressure high.
124	03-21-90	No	4 min	No	Functional test run, fuel oil delta pressure high.
125	03-22-90	Yes	6 min	No	Functional test for maintenance.
126	03-22-90	Yes	1 min	No	Functional test for maintenance.
127	03-22-90	Yes	15 min	No	Post-maintenance overspeed test.
128	03-22-90	Yes	3 min	No	Post-maintenance overspeed test.
129	03-22-90	Yes	5 min	No	Post-maintenance overspeed test.
130	03-22-90	Yes	5 min	No	Voltage clamp circuit adjust.
131	03-22-90	Yes	2 min	No	Voltage clamp circuit adjust.
132	03-22-90	No	1 1/2 hr	Yes	Post-maintenance load test, high temperature lube oil trip.
133	03-23-90	Yes	7 hr	No	Post-maintenance load test
134	03-23-90	No	3 min	Yes	Post-maintenance load test, low pressure jacket water trip.
135	03-23-90	Yes	4 1/2 hr	No	Post-maintenance load test.
136	03-24-90	No*	33 min	No	Post-maintenance load test, high temperature jacket water alarm.
137	03-27-90	Yes	1 1/2 hr	No	Bubble test.
138	03-27-90	Yes	42 min	No	Trip simulation test.
139	03-27-90	Yes	3 min	No	Trip simulation test.
140	03-27-90	Yes	2 min	No	Trip simulation test.
141	03-27-90	Yes	6 min	No	Trip simulation test.
142	03-27-90	Yes	57 min	No	UV test.
143	03-28-90	Yes	1 3/4 hr	No	Normal surveillance
144	03-28-90	Yes	4 min	No	Low pressure lube oil modification functional test.
145	03-28-90	Yes	4 min	No	Low pressure lube oil modification functional test.
146	04-04-90	Yes	1 1/4 hr	No	Post-maintenance load test.
147	04-05-90	Yes	5 min	No	LOSP trip modification functional test.
148	04-05-90	Yes	2 hr	No	Normal surveillance.

* High temperature jacket water trip alarm was received and the engine kept running.

CKM comments (2nd draft)

ELV-02059
0579

Docket No. 50-424

U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N. W.
Atlanta, GA 30323
ATTN: Mr. S. D. Ebneter

Dear Mr. Ebneter:

VOGTLE ELECTRIC GENERATING PLANT
CLARIFICATION OF RESPONSE TO CONFIRMATION
OF ACTION LETTER

By letter dated April 9, 1990 (ELV-01516), Georgia Power Company (GPC) responded to a Confirmation of Action Letter dated March 23, 1990. In that letter and in our meeting notes, GPC reported that Diesel Generator (DG) 1A had been started 18 times and DG 1B had been started 19 times with no failure or problems during any of these starts. As reported in our telephone calls to you we discovered that these figures were in error and were not clearly defined. In a Licensee Event Report (LER) dated April 19, 1990 (LER 50-424/1990-006, ELV-01545) and revision 1 to this LER dated June 29, 1990 (ELV-01729), GPC attempted to claify this by using regulatory guide terminology (i.e., valid vs. successful starts) and clearly defining this time period. GPC believes that revision 1 to LER 50-424/1990-006 accurately reports the number of valid tests during the period of March 21 through June 7, 1990. During the O.S.I., it was pointed out that this did not completely clarify the numbers in the April 9 letter, there the purpose of this letter is to clarify the figures related to the number of diesel starts as reported in our April 9, 1990 letter for the period of March 20 to April 9, 1990. FOR

The errors in the April 9 letter were due to inaccurate counting of starts by an operations superintendent who tried to count "successful" starts. During this period the DG was being tested with many start attempts made. When the DG was started and run without problems or if the cause of engine shutdown was intentional due to testing in progress this start was considered successful. Successful was never intended to imply "valid" in the context of Regulatory Guide 1.108. In hindsite this use of multiple terms to discuss diesel engine starts was confusing and in combination with the operations superintendent error in counting the number of starts resulted in the confusion of the April 9 letter.

HINDSIGHT

after the two failures associated with the March 20 event

Attached are Tables 1 and 2 which summarize the diesel starts for this period. For DG1A, there was a total of 31 start attempts and 29 of these attempts were considered successful. For DG1B, there was a total of 24 attempts (excluding five post-maintenance start attempts) and 23 of these attempts were considered to be successful.

Sincerely,

W. G. Hairston, III

WGH,III/NJS/gm

Attachments

xc: Georgia Power Company
Mr. C. K. McCoy
Mr. G. Bockhold, Jr.
Mr. R. M. Odom
Mr. P. D. Rushton
NORMS

U. S. Nuclear Regulatory Commission
Document Control Desk
Mr. T. A. Reed, Licensing Project Manager, NRR
Mr. B. R. Bonser, Senior Resident Inspector, Vogtle

NRC Concern

1. The NRC is concerned about the incorrect number of diesel starts reported in LER 1-90-06 and the number of starts presented to the NRC on April 9, 1990 and in the confirmation response letter of April 9, 1990. The major issue remaining is to try and determine through personal interviews, how the number of 19 for diesel 1B was arrived at in the April 9 letter to the NRC. The NRC believes the intent of the April 9 letter and the presentation discussed consecutive successful starts. The revised response to LER 90-06 did not clarify the number of starts reported to the NRC April 9, and did not clarify that the 19 starts were not consecutive.

2. The inspector noted that documentation provided by Operations to support diesel trending (14980-C and 13145-C data sheets) does not contain an adequate description of what happens during the start attempt. The plant is not interpreting Reg Guide 1.108 properly with regard to reporting valid and non-valid failures. There may be valid and non-valid failures that were not reported. The NRC does not consider the current status of reporting diesel failures to be in compliance with commitments made to the NRC in Violation 50-424/87-57.

NRC Documentation

The NRC has reviewed the diesel start log and supporting documentation (14980-C and 13145-C data sheets). The NRC currently believes some problems identified on 14980's and 13145's should be classified as non-valid failures and reported to the NRC. The NRC has requested and received written analysis to explain the disposition of the following 1B diesel starts: #'s 123, 124, 132, 133, 134, 136, 160, 161, 162, 164, 165, and 190. LER 1-90-06, revision 1; QA Audit Report OP26-90/33; QA Audit Report OP09-90/31; and Special Report 1-90-05, dated August 7, 1990; GPC confirmatory action letter dated April 9, 1990.

VEGP Position

1. The error made in the number of diesel starts reported to the NRC on April 9, 1990, and in LER 1-90-06 is attributed to two factors:

   a. The testing as described in LER 90-06, revision 0, was in the "context of" and "in reference to" the diesel control systems. The first two sentences of the 5th paragraph explain actions taken with regard to sensor calibrations and control system testing. In this context, the test program correlates to testing discussed with the NRC on April 9, 1990, and reported in the April 9, 1990, confirmatory letter. The LER 90-06 comment of "subsequent to the test program" was not intended to exclude successful diesel starts before declaring the diesel operable. As a result, diesel starts after testing of the control systems, but before a declaration of operability were counted. The transmittal letter for LER 90-06, revision 1, describes the confusion and attempts to clarify the concern by redefining the types of starts and the point of counting.

b. LER 90-06, revision 1, was intended to clarify any inadvertent "misleading" of the NRC on successful operation of the diesel control systems. When Vogtle Management was aware of the problem in LER 90-06, revision 0, management notified the NRC Residents. Also at the corporate office on 6/11/90, W. Shipman contacted Ken Brockman and on about 6/11/90, W. G. Hairston, III, contacted Mr. S. Ebneter of NRC Region II. The revised LER was submitted on 6/29/90.

The 19 starts discussed on April 9 were based on operator assessments of the starts as successful using VEGP procedures. Additional review of these starts by both the NRC and Vogtle personnel indicates start #134, performed on March 23, 1990, could be counted as <u>unsuccessful</u>. If start #134 is not counted, only 14 successful starts occurred before April 9, 1990. This start will be reviewed in detail and an appropriate report to clarify the number of starts reported April 9, 1990 will be made.

2. After a thorough review of Reg Guide 1.108, Engineering Support (Mike Horton) agreed that all <u>diesel start problems</u> have not been reported as failures. GPC's response to NRC Violation 424/87-57 committed to report such equipment problems as failures; however, due to internal administrative problems, the commitment was not implemented. Engineering Support intends to review diesel start records for any unreported failures.

<u>VEGP Documentation</u>

- LER 1-90-06, revision 1; QA Audit Report OP26-90/33; QA Audit Report OP09-90/31; and Special Report 1-90-05, dated August 7, 1990; GPC confirmatory action letter dated April 9, 1990.

- 1B diesel start analysis available 8/15/90 and Reg Guide 1.108 position from Engineering Support.

8/22/90
Time: 13:00

Response to NRC Question Concerning
Diesel Starts Reported on April 9, 1990
and in LER 90-06, Revisions 0 and 1

Question #1

1. Who prepared the slide for the 4/9/90 presentation?
   Answer: G. Bockhold, Jr., J. P. Cash, and K. Burr working as a group.

2. Who approved use of the slide?
   Answer: G. Bockhold, Jr.

Question #2

1. Who prepared the confirmatory letter of April 9, 1990?
   Answer: C. K. McCoy, J. A. Bailey, W. G. Hairston, III as a group.

2. Who approved the letter?
   Answer: W. G. Hairston, III

Question #3 (with regard to LER 90-06, revision 0, dated 4/19/90)

1. Who prepared the LER?
   Answer: Several draft revisions of the LER were prepared by Tom Webb and others of the NSAC group of the Vogtle Site Technical Support. These drafts were reviewed and commented on by the Plant Review Board. The final revision of LER 90-06, revision 0 was prepared by a phonecon between site management and corporate management. Those participating are believed to be G. Bockhold, Jr., A. L. Mosbaugh, J. G. Aufdenkampe, W. Shipman.

2. Who reviewed the LER?
   Answer: All revisions of the LER were reviewed by the PRB and the General Manager-Plant Vogtle.

3. Who approved the LER?
   Answer: The LER was approved by W. G. Hairston, III

Question #4

1. Who prepared the cover letter for LER 90-06, revision 1?
   Answer: The cover letter was prepared by H. W. Majors of the corporate staff. This letter was prepared under the guidance of W. G. Hairston.

2. What was the purpose (intent) in the wording of the cover letter with regard to the number of diesel starts?
   Answer: The cover letter was intended to document discussions with NRC Region II to clarify the starts documented in LER 90-06, revision 0. By picking a well defined point to specify "subsequent to the test program" it was possible to identify a substantial number of successful diesel starts. This was intended to remove any additional ambiguity.

Question #5

1. Who in corporate added the words "subsequent to the test program" in LER 90-06, revision 0?
   Answer: Corporate Licensing personnel in conjunction with the phone conversation described above made editorial changes as directed. Those present during the phone conversation are thought to be W. Shipman, G. Bockhold, Jr., A. L. Mosbaugh, J. G. Aufdenkampe, and J. Stringfellow.

VEGP PLANT REVIEW BOARD MEETING MINUTES

MEETING NO. 90-81 DATE 6/8/90 PAGE 1 OF 5

MEETING CONVENED 1:10 AM/PM; MEETING ADJOURNED 2:40 AM/PM
(* VIA TELECON)

THIS MEETING CHAIRED BY:
( ) CHAIRMAN (X) VICE CHAIRMAN T. V. Greene

VOTING MEMBERS PRESENT: H. M. Handfinger J. G. Aufdenkampe

PRB SECRETARY C. Cross Tynan

NON-VOTING MEMBERS PRESENT: G. R. Frederick C. P. Stinespring

J. B. Beasley

VOTING ALTERNATES PRESENT:

J. P. Cash FOR J. E. Swartzwelder

R. L. Mansfield FOR M. W. Horton

NON-VOTING ALTERNATES PRESENT:

P. A. Cure FOR R. L. LeGrand

FOR

FOR

FOR

FOR

GUESTS/TECHNICAL ADVISORS:

T. E. Webb

G. S. Lee

PRB ACTION ITEMS OPENED: None

PRB ACTION ITEMS CLOSED: PRB-90-66-01

PRB MINUTES APPROVED : 90-76, 90-77, 90-78, 90-79, 90-80

Carolyn C. Tynan
PRB SECRETARY

W. F. Kitchens
PRB CHAIRMAN

CC: NRC RESIDENT INSPECTOR

(FORM NAME=PREAGEND)

PRB MEETING MINUTES CONTINUATION SHEET

A. Meeting Minutes 90-76, 90-77, 90-78, 90-79 and 90-80 were unanimously approved as presented.

B. The following items were unanimously recommended for approval. No unreviewed safety question involved.

TCP 19209-1-5-90-1	"Gaseous Releases"
TCP 18019-C-7-90-3	"Loss of Residual Heat Removal"
TCP 18038-1-10-90-2	"Operation From Remote Shutdown Panels"
TCP 18038-2-5-90-2	"Operation From Remote Shutdown Panels"
TCP 19241-C-7-90-2	"FR-P.1 Response To Imminent Pressurized Thermal Shock Condition"
TCP 19232-C-3-90-2	"FR-H.2 Response to Steam Generator Overpressure"
19232-C, Rev. 4	"FR-H.2 Response to Steam Generator Overpressure"
TCP 83503-1-1-90-1	"Unit Operation During Secondary Plant Performance Test"
83503-1, Rev. 2	"Unit Operation During Secondary Plant Performance Test"
Special Report 1-90-04	"Valid Diesel Generator Failure" (NOTS-00403)
DCP 90-V1N0015, Rev. 0	To eliminate the possibility of the ARV's stalling at some uncontrolled position after several strokes
TER 90-004, Rev. 0	"Turbine-Generator Torsional Test" (Results).
ISI-P-014, Rev. 3	

LER 2-90-01, Rev. 1	"Misleading Task Sheet Leads to Inadequate Technical Specification Surveillances".

C. The following items were unanimously recommended for approval with comment. No unreviewed safety question involved.

93020-C, Rev. 5	"Technical Inspection of New Fuel". Section 3.0 - should include precaution on use of HP requirements/RWP. Step 4.1.14 - should Rad. Materials Shipping Form and/or DOE 741 Form be included here?
DCP 90-V1E0157, Rev. 0	To reduce nuisance tripping of the Diesel Generator Fuel Oil Transfer Pumps on thermal overload and stop leakage of fuel oil around pump base. Should specify functional test requirements via Data Sheet 12. Question 2 mil packing reduction appropriateness when problem may be corrected by installing vertical pump. Revise/markup transmittal letter to correctly reflect package and return.

D. The board unanimously concurred with the reportability determination for the following Deficiency Cards.

1-89-1579
1-90-260
1-90-261
1-90-262
1-90-264

E. The board tabled procedure 00663-C, Rev. 0, "Fitness-For-Duty", with the following comment.

- Step 4.1.3 - Change to Vogtle - Southern Company
- Section 3.0 - Responsibilities of individuals and/or groups offsite (not reporting to GMNP) should be put in another part of procedure as Appendix or such.
- Step 3.7 - Change "at each plant site" to "at Plant Vogtle"
- Confidentiality compromised for self referrals (since VP approves return to work)
- Will grieving employees be paid?
- Section 8.3 - Currently escorts are not trained in Aberrant Behavior - only Supervisors get aberrant behavior training.
- Alcohol (positive) testing doesn't require VP approval for return to work (self referral vs. for cause).

F. The board tabled TCP 18028-C-7-90-1, "Loss of Instrument Air". Operations will review the TCP to determine if the TCP is valid or should be voided. The board expressed a concern relative to the proposed deletions.

G. PRB Action Item 90-66-01 was reviewed. W. F. Kitchens responded to a request by the PRB that the Trip Reduction Committee re-evaluate Trip Hazards Labeling. This resulted from the boards' review of LER 1-90-011. The response stated that the Trip Reduction Committee has initiated a review of labeling/signs for critical components. The Trip Reduction Committee is not re-evaluating Single point trips, and does not intend to at this time. The Committee is looking at several specific trip reduction issues. It was stated that last year, the Trip Reduction Committee reviewed and concurred with an Engineering Support recommendation to stop spending resources on the Single point trip studies, but rather on specific trip reduction measure.

Based on this response PRB Action Item 90-66-01 was closed.

H. The board reviewed a letter from the General Manager - Nuclear Plant to PRB and SRB Members concerning the reportability review of Deficiency Card 1-90-003, and the boards' split decision that the item was not reportable. This deficiency involved a potential violation of a license condition, specifically the reactor power limit of 3411 MW.

The letter states that based on additional reviews that were completed, it was verified that the item was not reportable.

The board concurred with this position, and the letter is being made an attachment to the minutes for this PRB Meeting.

I. Revision 1 to LER 1-90-06 (Site Area Emergency) was returned to the board from Corporate with comments as to why the revision was warranted and requested revised wording on the diesel start section. The LER revision 1 was previously reviewed and approved by the PRB on May 8, 1990 and forwarded to Corporate at that time. The board decided to table the proposed LER revision presented so that the entire LER could be updated and returned to the PRB at a future meeting. G. R. Frederick added that he felt the diesel start numbers in the original LER were incorrectly included because of various problems/confusion with the surveillance and operator logs and the trending information recorded by Engineering Support.

J. J. G. Aufdenkampe addressed the board on a previous reportability issue for a proposed LER involving a potentially missed surveillance on Containment Penetrations. The PRB concurred that the DC was not reportable at PRB-90-76. J. G. Aufdenkampe stated that he had spoken with the NRC Residents and that they had concurred with the PRB's decision after they were provided with the information from Outage and Planning (which the PRB utilized in making the reportability determination). J. G. Aufdenkampe informed the board that the Vice President, C. K. McCoy stated that the item should not be reported because of the installed blind flanges but he felt that an inadvertent compliance issue may preside in this issue. J. G. Aufdenkampe took the action to discuss this item with the General Manager and would report back to the board only if a change in reportability would be appropriate and the proposed LER was required to be submitted by Corporate.

Meeting Adjourned

PRB 90-81 MEETING MINUTE

Interoffice Correspondence

Georgia Power

DATE: June 4, 1990

RE: Reportability Determination for Deficiency Card 1-90-003
Log: MOTS-00383

FROM: G. Bockhold, Jr.

TO: PRB Members and SRB Members

On January 5, 1990, the PRB met to review the reportability of Deficiency Card 1-90-003. This deficiency involved a potential violation of a licence condition, specifically the reactor power limit of 3411 MW_{th}. The board determined in a split decision that the item was not reportable.

Subsequently, I requested that more information be obtained during additional reviews to verify that the item was not reportable.

Mr. J. G. Aufdenkampe, on January 10, 1990, issued a minority opinion questioning the recommendation of the PRB. My decision not to report this item on Janury 5, 1990, was based upon the majority recommendation and my belief that more information would be expeditiously provided by Mr. Aufdenkampe and his Technical Support Department.

The additional reviews were completed and verified that the item was not reportable. If you have any questions or require additional information, please let me know.

G Bockhold

GB/chd

xc: MJRMS

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9 Transcription of Audiotape No. 157
10 transcribed by Janice Walters, Certified Court
11 Reporter and Notary Public.
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BROWN REPORTING, INC.
1100 SPRING STREET, SUITE 750
ATLANTA, GEORGIA 30309
(404) 876-8979

1 got 18 or more but other logs only count 15 or 14.
2 I didn't understand the difference between the two
3 logs.
4 MOSBAUGH: Yeah. Well, I guess you would
5 have to ask the Operations people about how they
6 keep their logs. (Pause.) They initiate both logs.
7 (Ice biting sounds.) They initiate the log in the
8 control room and they initiate the data sheets that
9 count the starts. (Pause.) So why don't you call
10 Jim Swartzwelder or somebody about that?
11 RUSHTON: So you don't know what the
12 history is on it?
13 MOSBAUGH: I know some of the history
14 because I was in the PRB when we approved the
15 revision to the LER. And I can only tell you that
16 any differences between the logs that Operations
17 generates that fills out data sheets versus the logs
18 that they maintain in the main control room that
19 I -- that you would have to ask Jim Swartzwelder why
20 there are discrepancies between their logs.
21 RUSHTON: Okay.
22 MOSBAUGH: And I am not sure that that
23 fact explains all the discrepancies. I do not
24 believe actually that that fact is a discrepancy,
25 but that fact does not explain the discrepancies and

1 the reason why the previous numbers were incorrect.
2 I believe that mistakes were made in the
3 previous numbers and that that probably started with
4 George Bockhold and his presentation to the NRC.
5 RUSHTON: If Bockhold made a presentation
6 to the NRC, then he used numbers like 18 and 19.
7 MOSBAUGH: I believe that that is where
8 the mistake originated.
9 RUSHTON: And those got put into the LER
10 without verification?
11 MOSBAUGH: Uhm, no. I think there was --
12 I believe that inaccuracies in those numbers were
13 flagged -- were flagged in the LER, in the LER
14 development.
15 RUSHTON: You are telling me I need to go
16 talk to Operations and find out what the problem
17 was?
18 MOSBAUGH: In terms of logs the log of
19 discrepancies, I can't explain why there are
20 differences in the way operators fill out logs. You
21 know, I don't work in that area.
22 RUSHTON: Okay. Well, fine. I will call
23 Operations then.
24 MOSBAUGH: But I think that will not
25 explain everything.

1 RUSHTON: What else is there that I need
2 to know?
3 MOSBAUGH: I think there is whatever
4 initial mistake was made. And, as far as I know,
5 George Bockhold and maybe some of the Operations
6 people developed the initial information that George
7 used in his presentation.
8 RUSHTON: Okay. You don't know where
9 that information came from?
10 MOSBAUGH: (Biting ice sounds.) John says
11 Jimmy Paul Cash.
12 RUSHTON: Okay.
13 MOSBAUGH: Beyond that it is really a
14 comparison between what was originally developed by
15 George and them to what the data sheets and the
16 control logs say.
17 RUSHTON: Okay. I will check with
18 Operations then.
19 MOSBAUGH: Okay.
20 RUSHTON: Bye.
21 MOSBAUGH: See ya. Bye.
22 (Movement sounds.)
23 MOSBAUGH: What's going on?
24 AUFDENKAMPE: Hairston's evidently on a
25 tear for misinformation.

1 MOSBAUGH: He's on a what?

2 AUFDENKAMPE: He's on a-- He's on a--

3 He's pissed off over misinformation.

4 MOSBAUGH: On this?

5 AUFDENKAMPE: Well, he's pissed off over

6 the revised LER for a date change because Lackey

7 didn't get the stuff done on time and he's pissed

8 off over this one.

9 MOSBAUGH: (To himself?) I should have

10 asked him. I didn't ask him why the hell are you

11 calling me. All I did was compare two sets of

12 data. That anybody can do. Now, they have got the

13 experience, the responsible parties will need to

14 account.

15 (Pause in tape.)

16 MOSBAUGH: (Inaudible) from the middle of

17 May and now on Friday today it's finished.-- Well,

18 come on.

19 AUFDENKAMPE: I can tell you why they've

20 had it for so long.

21 MOSBAUGH: Something's going on.

22 AUFDENKAMPE: (Inaudible).

23 MOSBAUGH: Yes, my instinct.

24 AUFDENKAMPE: I will tell you why they

25 have had it for so long is basically they have got

1 it and they have been sitting on it because I talked
2 Jack Stringfellow several times, and he said he
3 hasn't had time to work on it with the other ones
4 going out that have a time clock on them.
5 MOSBAUGH: Right. Facetious.
6 AUFDENKAMPE: -- times clocks on it.
7 MOSBAUGH: Right. Facetious.
8 AUFDENKAMPE: And that is true. That is
9 true.
10 MOSBAUGH: Get out of here. I don't
11 believe that for anything.
12 AUFDENKAMPE: That's the way Bailey
13 operates, Bailey operates the clock.
14 MOSBAUGH: I don't believe that for a
15 second.
16 AUFDENKAMPE: That is true.
17 MOSBAUGH: That is my stock trader's
18 instinct.
19 AUFDENKAMPE: The second part of it is
20 more elementary than that and that is the same thing
21 that always concerns you is that NRC misleading
22 diesel information and Hairston gets nervous about
23 that.
24 (Pause.)
25 AUFDENKAMPE: OI is back.

MOSBAUGH: What?

AUFDENKAMPE: OI is back.

MALE SPEAKER: What do you mean?

(Falsetto voice.)"They're back."

MOSBAUGH: They called somebody at home, but is it more than that?

AUFDENKAMPE: They're supposed to be back this week.

MOSBAUGH: Oh, who did they call at home? Did George put this out at the staff meeting?

MOSBAUGH: George put this out in a staff meeting.

AUFDENKAMPE: Not the staff meeting, must have been the 740 meeting.

MOSBAUGH: It's when you were gone. It was Wednesday. It wasn't yesterday and he put out in the 740 meeting that they had contacted somebody at home and he was reminding everybody of the company advice on that and referenced the old letter that they developed for it.

I tried to find out who it was and wasn't able to, so I conclude that it was obviously in Skip's organization.

(Phone rings.)

AUFDENKAMPE: John Aufdenkampe.

1 BAILEY: John, how are you doing?
2 AUFDENKAMPE: Wonderful.
3 BAILEY: I don't think we've had the full
4 story on the generator starts, the numbering, that
5 they are supposed to have the exact story on that.
6 AUFDENKAMPE: Jim, I don't think -- is
7 Paul in there with you?
8 BAILEY: Yes.
9 AUFDENKAMPE: Okay. Allen is in here with
10 me. I don't think anybody has and I didn't say
11 because I am not really sure what you are looking
12 for with respect to the whole story, but I am not
13 sure anybody has the whole story as to why we have
14 got misinformation in there, okay.
15 RUSHTON: That's the --
16 AUFDENKAMPE: The real bottom line on why
17 we have the misinformation in there, if you want to
18 point at one thing, is because we made the decision
19 -- we as management made the decision and the
20 Shipmans, Bockholds, Bailey, Aufdenkampe, Mosbaugh,
21 who else was on that phone call -- to put those
22 numbers in based on the fact that George [Bockhold]
23 told us that they were good numbers because they
24 used them as the start point, completions of, I
25 think it was, the undervoltage testing, okay.

1 And when we went back, what was it he
2 said.
3 MOSBAUGH: For George's?
4 AUFDENKAMPE: Yeah, George.
5 MOSBAUGH: I have no idea. I have no
6 idea what George's basis was for the data he
7 presented to the Commission.
8 BAILEY: You're talking about George
9 Bockhold?
10 MOSBAUGH: Yes. But I have no idea what
11 the basis was.
12 AUFDENKAMPE: It is based on --
13 MOSBAUGH: It was not based on
14 undervoltage.
15 AUFDENKAMPE: It was based on George's
16 comment that that, that he has used this point,
17 whatever the point was, whatever the point was,
18 that's exactly what he said as the start point. And
19 we have completed the critical testing associated
20 with declaration of or with (operability?).
21 MOSBAUGH: George never presented what
22 his basis was.
23 AUFDENKAMPE: And I know those numbers
24 were counted by Jimmy Paul Cash.
25 MOSBAUGH: The final numbers are based on

1 RUSHTON: He said five starts in
2 troubleshooting through a UV run test, sensor
3 calibration, logic testing, E run, bubble testing,
4 multiple starts five more, UV test, six months'
5 surveillance, high jacket water runs three times and
6 the UV run test. That adds up to 18.
7 MOSBAUGH: In amongst 18 are numerous
8 failures.
9 AUFDENKAMPE: Failures.
10 BAILEY: What was that, Allen?
11 AUFDENKAMPE: There are failures in
12 amongst those, mixed in with.
13 BAILEY: Yes. Okay. He just says 18
14 successful starts. He didn't say there were
15 consecutive successful starts.
16 AUFDENKAMPE: What we put in there was 18
17 starts without a failure.
18 BAILEY: I am talking about on the chart,
19 it doesn't say consecutive.
20 AUFDENKAMPE: That is what we put in the
21 April 9th letter was 18 starts without a failure.
22 BAILEY: This chart implies that, that he
23 didn't mention any failure.
24 MOSBAUGH: You have to check the data but
25 you may find that some of those five ones mentioned

Interoffice Correspondence

Georgia Power

DATE: August 21, 1990

RE: **Operational Assessment Inspection**

FROM: G. Bockhold, Jr.

TO: Plant Employees

As many of you know, the NRC recently concluded an Operational Assessment Inspection. The inspection, among other things, included investigation of a number of allegations of "wrongdoing," such as intentional violations of NRC requirements. Some VEGP employees were interviewed formally in "on the record" interviews.

The NRC appropriately investigates allegations of wrongdoing which bear on matters of safety or public health in a thorough and deliberate manner. While a formal interview may be disconcerting or stressful, these reviews are sometimes necessary. Georgia Power encourages cooperation in these investigations and views it as essential that the NRC obtain the relevant and material facts.

We have been informed that all allegations of wrongdoing by VEGP employees were found to be unsubstantiated. At the same time, the Operational Assessment team identified several technical items where potential violations of NRC requirements may have occurred. For example, the NRC observed at least one instance in which a Deficiency Card was not issued for equipment repair, contrary to our practices. We must remember to use our Deficiency Card system; only by identifying potential deficiencies can we achieve our high standards of excellence in all of the areas which support this plant. All of us need to be reminded to pay strict attention to detail -- to dot all the i's and cross all the t's -- in each of our daily tasks.

I want to thank all of you who worked diligently to support the Operational Assessment team. Your cooperation during this difficult time is greatly appreciated. I, personally, am very proud of the professionalism shown by each of you and encourage you to maintain those high standards as we move forward to fulfill our goal of efficient and, foremost, safe operation of the Vogtle Electric Generating Plant.

G Bockhold

AD/TVG/GB/tdm

12/21/93

Note: Although this does not have J. Milhoan's name on it - it was provided to me and described as "J. Milhoan's" personal notes.

Peice Skinner

This is for items 189 & 190. MH

CHRIS INITIAL BRFG

Too much "bug shooting"
Always a moving target
Not Unsafe
Close to the line on TSs
Typically unconserv interp

① SRMs
Personnel Error + Human Factors on LCO Sheet
(UTIL. Takes Acception)
No Proven Intent ALLEG TRUE
(NCV'd)

② CIV Surveillance
USS DN have suffic. info to ~~specify~~ verify SI Missed
∴ NO BASIS for ALLEG

③ RHR Pump Operability
Excessive Vibration & NSCW Leak
Engr. Bases was Adequate for The Atm
NO REAL CRIT PATH EFFECT
Oper Ax were adequate
NO DC WRITTEN

④ FAVA
SER Adequacy
Consider the HOSES for safety concerns — (URI)

⑤ EDG Starts
Really 22/27 Successful Starts
Only 12 Success Sequential starts in this area
NO INTENT
LERs have Problems
AIR QUAL DECIS OK
*** 4 Instances of Failing to Record Trips - Incl Correct Ax (37/57)

(6) CNTMT Fan Coolers ~~Sic Operability~~ Rqt's
OK 10.73 Only

(7) SEQUENCER

Incorrect TS Use
** NO Cases where ~~B~~SEQ Deenergy @ Modes 1-

Need to Clarify Ax Req'd for Seq Outages

(8) Back Dating TCP

TCP had been removed from the procedure w Day 14

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(1) PRB Intimidation
GTM intimidated 1 Person on 1 Occasion

(2) Snubbers Rep'l @ Power
NO PRA to JUSTIFY
No Interim Eng Eval

(3) CNTMT INTEG (H_2 Anal)
They disagree (VIOL per TS 363)
No ERG Ref

(4) RCS Flow Calibration
No PRB review of Sim Inst's

NOT THE EQUIP NOT THE DESIGN
NOT THE OPERS

It is something above Them
Inspectors can't quantify this!

1) NO S/D Issues for Tech Safety Reason
2) yes Alley
3) Yes TS U10C (minor signif)
4) There is a Problem

(5) TS Interpretations
Ops Mgr Note Order file ONLY

No Multi-Disciplinary
NO DOC CTL - No Cys to

(6) OJT
Qual Cds Not Done
Bay Rush

QA or QC?

223
223
79
525

EXIT MEETING 8/16/90 1412 E

(1) SRM Mode Change [Incl Cond Ax POT VIOL] Alleg ↓ Agree
(2) CIV TS Entry Delayed [No 2C Cond POT VIOL 671] Alleg ↓ Agree
(3) RHR OPER'Y Alleg ↓ Agree
(4) FAYA [URI - Flex Hoses → Spring Dwn] Alleg ↓ Agree
(5) EDG RELIABILITY (# STARTS) AIR) [POT VIOL TS 48113 632] Alleg ↓ Agree w/ Signif Comments
NOT CPTG "NON-REG FAILURES" PER CC 22 AT FROM IR 87-57

¿¿¿ DO WE WANT A C.A.L. CLARIFICATION LETTER ??? (6/19)

(6) EDG ROTY - BOTH TRAINS CFC INOP NO 50.72 YES 50.73 (7/19/90) Alleg ↓ Agree

(7) ESFAS SEG 303 322 3811B [CLARIF TO OPERS NEEDED] Agree

(8) TCP BACKDATING [POT VIOL (ADMIN)] Alleg ↑ Agree

(9) PRB INTIMIDATION (Chilling Effect) {Fear NRC Cmts Dig to Submit My & the Facility} ~~Agree~~ CMTS

(10) SNUBBER REPL @ NP
Kent's Seismic Snubbers - SYST 6 NP
Leaks Snubbers SYST CUT
H.T. Do Things when They Come Up Tim Spring otter to Outage
CMTS

(11) CNTMT INTEGRITY (SGS HI ANL) [POT VIOL 365] Comments/Contention & Technical Issue 2 ISTS - DISAGREE (They said they weren't!?)

Is what we think is what plant?

(12) CCW Surveillance (473A) - TBD — Agree

(13) Electrical Separation (Defic 90 299) — More Info to Come from VEGP — Agree More Data To Come

(14) ESFAS REPORTABILITY — No IMPROPER RPTG [VEGP DENIES THIS IS A CORPORATE POSN] ← Agree

(15) 3.0.3. ACTIONS TIMING (GL 87/09)

McCoy Says They Do Take • GL 87/09 Initial Ax (Docum. not req'd) • They Don't Log These Ax

GB - We can safely S/D in 1 Hour

Pat McD - Is the GL a Bjmt? Unnec. Kicks How long till Temp are fixed!!

Big Time Disagreement on when you have to start MWe ↓

VERY LITIGATIVE!!!

— Disagree

(16) RCS FLOW CALIB (LER 90/15) — So What

(17) PERSONNEL PERFORMANE ACCT'Y — Agree to POT. No Δ Intended

(18) QC Prgm (All Personnel Not Intvd Pot for Conflict of Interest) — Pat adds his "moral" cmts. — DISAGREE

(19) TS INTERPRETATIONS — Basically DISAGREE

McCoy - Take a guidance w/ Mgmt w/ Real ETL is a good idea. Pat McD - Big Disagree. The Lic'd Operators are trained & required to understand the TS. It is their job!!!

— Agree w/ CMTS

(20) OJT (PEO Trng Inad, Rvws Inapprop, Quals Not Met!) — McCoy - Improvement Necess. It meets ACCRED STDS but Not GPC's. We'll get there in 2 Yrs!

(21) LCO EXIT TIMES [WKNESS] — Agree

Exited before Indep Verif

(22) VOLUNTARY OVERTIME
Up to 40% - Non Outage
Appv'l's After Fact - No Dec to decide 1 or 4
NO VIOL

McCoy - 40% (isol'd) not necessarily that high (eg 5x)2 = 50%)
Supv watches for detrimental effects.

CMTS

(23) SHIFT T/O
(Safety Mtg's X Hearing)

Agree

(24) BACK SHIFT EXPER

Agree

(25) SHIFT COMMO
(Very Greatly)

Agree (w/ Cmts)

(26) OPNS RVW of MAINT PROC'S

More Info to Follow - % of Procs which have/have not been Opn's Rvw

Understand

(27) MAT'L COND / PERS RESP
PEO's limited to "Their" equip
PEO mode

McCoy - Potential to have Overemphasized HOUSEKEEPING

Pat Takes Great Exception !!

Bio Acid Leaks
5/6 WR & NR Insp'ts w/o Root Cause ID'd

Esc. Enf.

(28) MGMT CONSISTENCY!
- CIV
- H_2 Anal
- Snubber Mods
- ESFAS Rel'y

McCoy - Speed on Graphically Speed Into Not Verified!!!!
Good Spirit!!!!
BY MED - Bit Time Upset Never heard such a comment at an exit before!
Total Responsiveness Total Honesty

Great Concerns

Over Stressed the Openness & Responsiveness to the Team

Georgia Power

ANSWER TO NOTICE OF VIOLATION

Pursuant to 10 CFR § 2.205, Georgia Power Company, the Licensee, ("GPC") files this Answer to Enforcement Action 93-304, dated May 9, 1994.

I. Denial of violations listed in the Notice of Violation, in part.

GPC hereby denies Violations B and E of the Notice of Violation ("NOV"), as set forth in the Reply to the NOV.

GPC also denies Example 2 to Violation D, as set forth in the Reply to the NOV.

GPC also requests that the NRC reconsider Violation A, Violation C and Violation D on the basis of the Reply. The information related to materiality of inaccurate statements provided in those responses is unique to an NRC enforcement action. The NRC's Office of Investigation obtained statements from the NRC decision makers who might have been influenced by GPC's inaccurate or incomplete statements. Separate from GPC's statements that are at issue in this proceeding, these NRC decision makers had been provided voluminous and detailed data concerning the diesel generators ("DGs"). Moreover, NRC staff had actually witnessed certain of the DG starts designed to demonstrate operability. This data provided to the NRC is documented in Incident Investigation Team (IIT) transcripts, documents developed by or produced to the IIT, and personal discussions (OI Report 2-90-20, Exhibit 113, Page 49-50 and referenced documents). As a result of this data, the NRC was aware of the specific DG problems which were relevant to the operability and reliability of the DG, prior to restart permission for Vogtle Unit 1. Most significantly, the NRC knew of the problems of DG control sensors on the Unit 1 DGs after the Site Area Emergency ("SAE") (Exhibit 113, Pages 74-75), and the corrective actions associated with the sensors.

II. Demonstration of extenuating circumstances.

The principal extenuating circumstances which should affect the NRC's consideration of the appropriate enforcement sanction, both in terms of civil penalty and the severity level of the violation, is the fact that the NRC's regulatory concern is not based on an adverse impact which the underlying activities had on plant safety. Nor, it appears, did the NRC place significant reliance on the erroneous information provided to the NRC. When all of the activities of Spring and Summer, 1990 at the VEGP are considered, including those associated with the response to the SAE and continuing through the augmented inspection team, the IIT, the special audit by SAER and the many NRC inquiries, communications and meetings, it becomes apparent that, in context, those specific errors associated with the NOV form only a very small part of the overall effort in providing the NRC with accurate, complete significant information.

The numerous tape recordings which were surreptitiously made reveal that the VEGP management in 1990 was professional, thorough and business-like in responding to NRC inquiries. Such extensive recordings are truly unprecedented and extraordinary. In our view, those recordings show an ongoing desire to comply with both the letter and intent of NRC regulations, including 10 C.F.R. 50.9. No other licensee and its personnel have ever been subjected to the kind of detailed, after-the-fact scrutiny covering such a long period of time. While the tape discussions may memorialize the genesis of misstatements, they also show honest, good faith efforts to do the right thing.

Another extenuating circumstance, of course, is the relationship which developed between the former acting Assistant General Manager and his employer. We submit that the circumstances surrounding Violations C and D reflect an isolated event due, in part, to the strained relationship. Whatever his motivation, he did not share information with co-workers who were in a position to change the course of events. Their actions indicate a genuine desire to address issues and report the truth; his responses are couched and evasive. GPC willingly accepts accountability for its mistakes, but also feels that the NRC should consider the extenuating circumstance of a former high-level manager who withdrew from the VEGP team.[1/]

As the NRC evaluates the severity level of the violation and any proposed civil penalty, the NRC will reach an appropriate balance between the true significance of the underlying violations and the progress which has been made by the VEGP workers since the March-August, 1990 time frame. According to guidance in 10 C.F.R. Part 2, Appendix C, a severity level II for incomplete or inaccurate information is appropriate in those instances of "careless disregard" on the part of a licensee or if complete and accurate information would have resulted in a different regulatory position. As explained in the reply to the NOV, GPC sought to provide complete and accurate information to the NRC during this time frame and, more specifically, was not guilty of any careless disregard or indifference to the accuracy of information provided to the agency. Moreover, we have made progress in our performance since 1990, and have taken corrective actions over the last four years to prevent a recurrence. Moreover, a fair review of the pertinent facts shows that a different regulatory position would not have resulted from the shortcomings identified in the NOV. The DGs were determined to be operable and reliable, and such a conclusion by either the NRC or GPC was based on many different factors besides the statements highlighted in the NOV. Significant NRC expertise reviewed GPC's actions prior to the restart decision. These experts shared, on working level basis, information with GPC representatives. Their observations, training, qualifications and real time experiences

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[1/]GPC does not question the right of an employee to submit allegations to the NRC or to file a complaint when the employee considers himself or herself aggrieved under § 210 (now § 211) of the Energy Reorganization Act. We merely call attention to the possibility for the dramatic change that can occur between an employee and his co-workers associated with such an event and the resulting real world impact which may result.

surely were the predominant considerations in judging DG capabilities. Simply stated, the Severity Level II designation and associated proposed civil penalty are too much punishment for the events at issue here, particularly in light of the extenuating and extraordinary circumstances. GPC respectfully requests that they be reconsidered.

III. Showing of other reasons why the penalty should not be imposed.

GPC submits these events do not reflect an inability or unwillingness of the Licensee to correct and resolve the problems which warrant the civil penalty, as proposed. To the contrary, the actions of GPC officials reflect a diligent effort to correct inaccurate statements, as then understood by GPC.

As set forth in GPC's response to Violation C, GPC identified the inaccuracy in the Licensee Event Report (LER 1-90-006), notified the NRC of the inaccuracy, and revised the LER on its own initiative. As set forth in GPC's response to Violation A, GPC has concluded that the NRC was promptly notified on April 19, 1990 of the literal inaccuracy of the April 9th letter (i.e. since March 20th, problem starts had occurred on the 1B DG and the NRC was aware of these problem starts which occurred. GPC missed this April 19 opportunity to identify the error in the DG start count numbers in the April 9th letter, and similarly missed an opportunity in June, 1990. However, throughout these events, GPC voluntarily shared repeatedly its understanding of identified inaccuracies with the NRC. Clearly here was a licensee with the appropriate attitude. GPC also attempted to identify why different "start counts" were developed by commissioning an SAER (QA) audit. The numbers of DG starts determined by that audit were accurate, and the use of these numbers in a revised LER and cover letter corrected the LER inaccuracies. GPC also believed that any additional clarification of the April 9 letter "start count" was provided in August, 1990. At that time GPC expressly defined a "successful start" to avoid any further miscommunication, and identified three "unsuccessful" starts based on that definition. The August letter also acknowledged error of the Unit Superintendent in the performance of his count. GPC's discussions with a responsible NRC Region II representative at that time indicated that the matter had been resolved with this letter.

GPC further requests mitigation of the proposed civil penalty on the basis of the corrective actions described in the Reply.

IV. Conclusion

On all the foregoing bases, GPC respectfully requests reconsideration of the level of penalties to be imposed, as well as the severity level assigned to the violations, which the NRC concludes, after its review of the additional information provided in the Reply, is warranted on the facts and circumstances surrounding these events.