

A-190

GPC EXHIBIT II-190
CHENAULT EX. A

DOCKETED
USNRC

William H. Chenault, III

'95 OCT 20 P4:21

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

Experience Summary

- Over twenty years commercial nuclear power experience including extensive experience at Boiling Water and Pressurized Water Reactor Plants
- Extensive Standby Electrical Power Systems experience
- Experienced in Licensing and Regulatory Requirements
- Experienced Technical Support Staff Engineer

Experience Description

Bill Chenault is a Senior Engineer with Enercon Services, Inc., located in Atlanta, Georgia. He provides support for utility and engineering companies for a variety of engineering, licensing, training, operations and maintenance projects. This experience includes procedure development, licensing, technical specification procedure reviews, lesson plan development and diesel generator maintenance and operation. Since joining Enercon, he has worked on projects for Entergy (Grand Gulf, Arkansas Nuclear One, River Bend), Westinghouse Savannah River (Savannah River Site), Southern Nuclear Operating Company (Georgia Power Company's Vogtle), Baltimore Gas and Electric (Calvert Cliffs), Carolina Power and Light (Brunswick & Robinson), Northern States Power (Prairie Island) and Houston Power and Lighting (South Texas Project). In addition to his engineering responsibilities, Mr. Chenault is the Quality Assurance Auditor for Enercon's Atlanta Office.

Mr. Chenault has been directly and continually involved with Enterprise Diesel Generators for fifteen years. He was a Startup Engineer for the Enterprise Diesel Generators at Grand Gulf Nuclear Station for four years and a Startup Engineer for the Enterprise Diesel Generators at Vogtle Electric Generating Plant for five years. Since its inception in 1984, he has been involved in varying degrees with the TDI (Enterprise) Diesel Generator Owners Group. He participated in the initial review and approval process of the Maintenance/Surveillance Matrix (part of the Owners Group Design Review/Quality Revalidation (DR/QR) program). He has assisted Georgia Power in maintaining Vogtle's Diesel Generator maintenance program in compliance with the M/S Matrix requirements by reviewing subsequent revisions and revising the Diesel Generator maintenance procedures as required and developing a database of commitments, regulatory requirements and industry recommendations for the Enterprise DGs.

He has also performed other diesel generator related consulting activities such as: technical support to Southern Nuclear Operating Company in analysis of a station blackout event at Vogtle Unit 1 (NUREG-1410); a detailed technical review of the ANO Units 1 and 2 diesel generator systems' design basis documents at the AP&L offices in Little Rock; and assistance to Westinghouse-Savannah River Co. with the analysis of connecting rod bearing failures of one of the emergency diesel generators at the Savannah River Site.

9512210194 950914
PDR ADOCK 05000424
G PDF

NUCLEAR REGULATORY COMMISSION
 Docket No. 50-424/425-OLA-3 EXHIBIT NO. II-190
 In the matter of Georgia Power Co. et al., Vogtle Units 1 & 2
 Staff Applicant Intervenor Other
 Identified Received Rejected Reporter SD
 Date 9/14/95 Witness W. H. CHENAUULT

Mr. Chenault was as an Issue Evaluator in the Reactor Safety Improvement Program at the Savannah River Site. He was responsible for review of issues involved with the diesel generators and electrical systems related to reactor safety which were submitted by outside contractors, plant operating contractors (Dupont & Westinghouse), plant employees and the DOE to determine their impact on restart of the reactors at the site. The issues were reviewed against criteria developed from DOE Safety Performance Criteria, Technical Specifications and Safety Analysis Report.

As an Engineer in the both the Maintenance and Startup Departments at Vogtle during initial startup of Units 1 and 2, Mr. Chenault prepared work packages for the detailed inspection of Diesel Generator components to ensure compliance with specified design requirements of the TDI Diesel Generators Owners Group. He interfaced with outside agencies involved with testing and inspecting system components, directed craft personnel in the initial checkout of individual system components, and scheduled and coordinated the construction effort for the installation of the Unit 2 DGs and auxiliary equipment. Mr. Chenault prepared and performed procedures for verification of the performance of the DGs and their auxiliaries. He also initiated and implemented design changes to correct and enhance system operation and developed and reviewed plant surveillance and maintenance procedures for the DGs. He also participated in the development of draft through final versions of the electrical section of the Vogtle Technical Specifications, including direct meetings with the NRC to resolve items of contention.

Mr. Chenault was the Enterprise Diesel Generator Startup Engineer at Grand Gulf. He participated in the review of the diesel generator system for design adequacy and directed craft personnel for the initial checkout of individual system components. He also prepared and performed test procedures to verify system performance per design specification for the Enterprise diesel generators. While at Grand Gulf, Mr. Chenault assisted in the performance of the plant's first Diesel Generator/Engineered Safety Features integrated transient response and design verification test.

Mr. Chenault participated in the development of the first lesson plan for the Standby Diesel Generators at Grand Gulf and assisted in the classroom presentation. The class was tailored for mechanics, electricians and instrument technicians for the purpose of augmenting their understanding of the system's operation, inter-system relationships and trouble shooting the electrical and pneumatic controls of the engine and generator.

Mr. Chenault has recently been involved with the following diesel generator projects:

1. Revised the Grand Gulf Diesel Generator Maintenance Standard, which is used for governing maintenance activities on the Diesel Generators, to incorporate the latest Cooper-Enterprise Clearinghouse Preventative Maintenance Plan.
2. Reviewed newly developed diesel generator (Cooper) surveillance procedures at the South Texas Project.
3. Developed safety related design functions for the pumps and valves for the Enterprise and EMD Diesel Generators at Grand Gulf to support the ten year update effort of the plant's Inservice Test Program.

4. Responsible for resolving Diesel Generator related open items associated with Grand Gulf's submittal of the Improved Technical Specifications to the Nuclear Regulatory Commission (NRC) and updating the plant's Lubrication Manual to latest diesel generator vendor requirements.
5. Performed an audit of the design and testing of the Station Blackout Project at Prairie Island Units 1 & 2 on behalf of Northern States Power Corporate Quality Assurance Department. The audit included a detailed review of the design and installation of two new SACM Diesel Generators (French manufacturer) installed for Unit 2 and the dedication of the two existing Diesel Generators to Unit 1. The design was evaluated against applicable industry standards and regulatory requirements. Following completion of the installation of equipment, reviewed the diesel generator testing program to verify that design specifications, industry standards and regulatory requirements had been complied with.
6. Verified the technical adequacy of the surveillance test procedures for Calvert Cliffs. This work involved reviewing applicable Technical Specifications to ensure specific design basis requirements were reflected in the surveillance program, and development of a surveillance requirement licensing and design basis document for the onsite AC and DC electrical power sources and distribution systems, including the Diesel Generators and battery systems.
7. Assisted in the preparation and resolution of issues for an NRC Electrical Distribution System Functional Inspection (EDSFI) at Grand Gulf. Performed tasks that included the review and revision of the System Design Criteria for the Diesel Generators and preparation of UFSAR changes, including verification documentation and safety evaluations, for the Electrical and Auxiliary System sections of the UFSAR.

While attending college, Mr. Chenault was employed full time at Georgia Power Company's corporate office where he was a draftsman/designer responsible for mechanical layouts, P&ID's and electrical schematics. He also designed fluid transfer systems, procured equipment for design projects, and performed field inspections of design projects.

Education

B.S., Mechanical Engineering, Georgia Institute of Technology, 1976

August 14, 1995

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	:	
	:	Docket Nos. 50-424-OLA-3
GEORGIA POWER COMPANY, <u>et al.</u>	:	50-425-OLA-3
	:	
	:	Re: License Amendment
(Vogtle Electric Generating Plant,	:	(Transfer to
Units 1 and 2)	:	Southern Nuclear)
	:	
	:	ASLBP NO. 93-671-OLA-3

REBUTTAL TESTIMONY

OF

WILLIAM HALL CHENAULT, III

ON

DIESEL GENERATOR AIR QUALITY STATEMENTS

1 TESTIMONY OF WILLIAM HALL CHENAULT, III

2 Q: PLEASE STATE YOUR NAME AND POSITION.

3 A: My name is William Hall Chenault, III and I am employed by
4 Enercon Services in Atlanta, Georgia.

5 Q. WHAT ARE YOUR PROFESSIONAL QUALIFICATIONS?

6 A. A summary of my professional qualifications is attached hereto
7 as Exhibit A.

8 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

9 A. The purpose of my testimony is to address Intervenor's
10 testimony that I observed water pouring out of the Vogtle
11 diesel generator control air trip lines in the days following
12 the March 20, 1990 site area emergency. I also address
13 Intervenor's assertion that high dew point readings recorded
14 during this time frame support his claim that water
15 accumulated in the control air system.

16 Q. WHAT ROLE DID YOU HAVE IN THE INVESTIGATION OF THE MARCH 20,
17 1990 FAILURE OF THE PLANT VOGTLE 1A DIESEL GENERATOR?

18 A. In March and April of 1990, I was employed by Enercon Services
19 and had performed consulting services for Georgia Power on an
20 as-needed basis in connection with the Plant Vogtle diesel
21 generators. Following the March 20, 1990 site area emergency,
22 I was contacted by Mr. Ken Burr and asked to come to Plant
23 Vogtle to assist in the investigation of the 1A diesel

1 failure. Based on my time records, I arrived at Plant Vogtle
2 on March 26, 1990 and left the site on April 1, 1990.

3 Q. WHAT DID YOU CONCLUDE DURING YOUR VISIT TO THE PLANT?

4 A. Initially, I believed that pneumatic leaks in the 1A diesel's
5 instrument air system could have been the cause of the diesel
6 failure. However, I dismissed this theory after reviewing the
7 design of the system and concluding that observed air leakage
8 was insufficient to cause a diesel trip. I concluded that the
9 cause of the 1A diesel failure was the Calcon jacket water
10 temperature sensors. Before I left the Vogtle site, I
11 believed that concern had been raised about the Calcon sensor
12 calibration procedure and that steps had been taken with
13 respect thereto to ensure proper Calcon sensor set points. I
14 do not remember whether, by the time I left the site, foreign
15 material had been discovered in some of the Calcon sensors.

16 Q. WHILE YOU WERE AT VOGTLE, DID YOU OBSERVE THE DISASSEMBLY OF
17 ANY DIESEL CONTROL AIR SENSING LINES?

18 A. Although I do not have a specific recollection of this, I
19 believe that I did observe functional testing and bubble
20 testing of the diesel control systems during which the sensing
21 lines would have been disassembled.

- 1 Q. WHILE YOU WERE AT VOGTLE, DID YOU EVER HEAR OR OBSERVE THAT
2 THERE WAS WATER OR MOISTURE FOUND IN THE VOGTLE DIESEL
3 PNEUMATIC CONTROL SYSTEM?
- 4 A. No.
- 5 Q. DO YOU THINK YOU WOULD REMEMBER IF THERE HAD BEEN WATER OR
6 MOISTURE FOUND IN THE PNEUMATIC CONTROL SYSTEM?
- 7 A. Yes. I believe that would have received considerable
8 attention and discussion.
- 9 Q. HAVE YOU LISTENED TO THAT PORTION OF MR. MOSBAUGH'S TAPE NO.
10 24 WHICH IS TRANSCRIBED ON INTERVENOR'S EXHIBIT II-85?
- 11 A. Yes. I listened to a copy of the tape provided to me by
12 counsel for Georgia Power. I also listened to that same tape
13 recording in the Summer of 1994 when I was interviewed by OI
14 investigator Mr. Larry Robinson. I believe the tape that Mr.
15 Robinson played for me was a micro-cassette size.
- 16 Q. DO YOU BELIEVE THAT IT IS YOU SPEAKING ON THIS TAPE?
- 17 A. When I listened to the tape in the Summer of 1994, I told Mr.
18 Robinson that I wasn't sure that it was me on the tape, and I
19 believed that the speed of that tape was off-normal. After
20 listening to the tape copy provided to me by Georgia Power
21 counsel, I believe that it is me speaking on the tape.
- 22 Q. WHAT DO YOU BELIEVE IS BEING DISCUSSED ON THE TAPE?

1 A. It is hard to decipher this conversation because it sounds
2 like Ken Burr and I are having a conversation with Mr.
3 Mosbaugh while Ken Stokes is talking on the telephone in the
4 same room. In any event, I believe we were talking about air
5 leakage from the diesel trip lines.

6 Q. HAVE YOU REVIEWED MR. MOSBAUGH'S PREFILED TESTIMONY AT PAGE
7 94?

8 A. Yes.

9 Q. DO YOU AGREE WITH MR. MOSBAUGH'S CHARACTERIZATION THAT THIS
10 CONVERSATION INVOLVED THE PRESENCE OF LIQUID IN THE DIESEL
11 TRIP LINES?

12 A. No.

13 Q. HAVE YOU EVER HEARD THAT HIGH DEW POINT READINGS WERE OBTAINED
14 ON THE VOGTLE DIESEL AIR RECEIVERS?

15 A. I recall that over the course of all my visits to Plant Vogtle
16 there were some dew point readings taken which were out of
17 specification high. However, I don't believe that either Ken
18 Stokes or myself ever concluded there was an actual moisture
19 problem in the diesel control system. I recall believing that
20 there were problems with the way the technicians took the dew
21 point readings such that neither Ken nor I had confidence in
22 the accuracy of those particular readings.

1 Q. WHEN YOU RECEIVED REPORTS OF HIGH DEW POINT READINGS DID YOU
2 TAKE ANY ACTION TO ENSURE THERE WAS NOT AN ACTUAL HIGH
3 HUMIDITY CONDITION IN THE DIESEL PNEUMATIC CONTROL SYSTEM?

4 A. Yes. I recall checking for water in the blowdown of the air
5 receivers and checking the bowl of the five-micron filter in
6 the diesel engine control panel.

7 Q. IF WATER DID ACCUMULATE IN THE VOGTLE DIESEL CONTROL SYSTEM
8 WHERE WOULD YOU EXPECT TO FIND IT?

9 A. I would expect it to appear in the diesel control panel
10 filter, which has a bowl for the purpose of trapping any water
11 or debris that might find its way into the system. In my
12 opinion, if water were in the system it could not get out
13 unless it were removed manually.