

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)

GEORGIA POWER CO.)
et al.)

(Vogtle Electric Generating Plant,)
Units 1 and 2))

Docket Nos. 50-424
50-425
(OL)

AFFIDAVIT OF HUKAM C. GARG IN SUPPORT
OF NRC STAFF RESPONSE TO APPLICANTS'
MOTION FOR SUMMARY DISPOSITION OF CONTENTION 10.7

I, Hukam C. Garg, being duly sworn, state the following:

1. I am employed by the U.S. Nuclear Regulatory Commission as an Electrical Engineer in the Equipment Qualification Branch, Division of Engineering, Office of Nuclear Reactor Regulation. I am responsible for the technical reviews, analyses and evaluations of the adequacy of the environmental qualification of electric equipment important to safety and safety-related mechanical equipment whose failure under postulated environmental conditions could adversely affect the performance of safety systems in nuclear power plants.

Prior to my present position, I was employed by Gilbert/Commonwealth Associates from 1973-1980. My most recent position was Supervising Engineer for the Instrumentation and Control Section. In this position I was responsible for the instrumentation and control aspects, including the equipment qualification for nuclear power plants. I had previously worked for Fluor Power Inc., formerly Pioneer Service and Engineering Company (1969 - 1973), in the design of electrical systems for nuclear power plants.

I am the Staff's technical reviewer responsible for the review of environmental qualifications of electrical and mechanical equipment for the Vogtle Plant. I have knowledge of the matters set forth herein and believe them to be true and correct.

2. I submit this affidavit in response to Applicants' Motion for Summary Disposition of Joint Intervenor's Contention 10.7. That contention challenges the adequacy of environmental qualification of Westinghouse electric-type hydrogen recombiners.

3. To ensure hydrogen concentrations inside containment remains at low levels following a design basis accident, each Vogtle unit will utilize two Westinghouse Model B electrical hydrogen recombiner systems. These systems consist of a recombination unit located inside of containment, and a power-supply panel and a control panel outside of containment.


4. Westinghouse hydrogen recombiners do not contain any transducers or sensors, and no such devices are necessary to operate the recombiners during a design basis accident. See FSAR Section 6.2.5.5.

5. The Westinghouse Model B hydrogen recombiner is a modified version of the older Model A recombiner. Staff had previously reviewed the environmental qualification of the Model A recombiners set forth in Westinghouse topical report WCAP-77096, supplements 1-7, and found it acceptable. See Exhibit B attached to Applicants' Motion. These same reports for Model A were also reviewed by Staff and found acceptable during the recent near-term operating license audit for the Susquehanna nuclear plant.


6. Westinghouse has recently submitted to the NRC a test program (Westinghouse topical report WCAP-9346) for Model B which lists the differences between Model A and Model B and environmentally qualifies those features of Model B which differ from Model A. I have reviewed WCAP-9346 and conclude that the differences between Model A and Model B are minor. I have also concluded that those features of Model B which differ from Model A have been adequately environmentally qualified by this Westinghouse test program.

7. 10 CFR 50.49(f) identifies acceptable environmental qualification methods that include: "(2) testing a similar item of equipment with a supporting analysis to show that the equipment to be qualified is acceptable and "(4) analysis in combination with partial test data that supports the analytical assumptions and conclusions." The testing for the Westinghouse Model B hydrogen recombiner, as set out in WCAP-7709L, Supplements 1-7 and WCAP-9346, satisfy these standards. Based on these test results for Models A & B, I conclude that the Model B recombiner has been adequately environmentally qualified.

8. I have reviewed the Statement of Material Facts appended to Applicants' Motion and fully agree with the facts stated therein.


Hukam C. Garg

Subscribed and sworn to before
me this 29th day of August, 1985


Notary Public

My commission expires: 7/1/86

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)

GEORGIA POWER COMPANY,)
et al.)

(Vogtle Electric Generating Plant,)
Units 1 and 2))

Docket Nos. 50-424
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CERTIFICATE OF SERVICE

I hereby certify that copies of "STAFF'S RESPONSE TO APPLICANTS' MOTION FOR SUMMARY DISPOSITION OF JOINT INTERVENORS' CONTENTION 10.7 (HYDROGEN RECOMBINERS)" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class or, as indicated by an asterisk, through deposit in the Nuclear Regulatory Commission's internal mail system, this 30th day of August, 1985.

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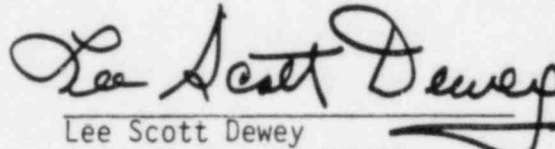
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