July 18, 1985



UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| GEORGIA POWER COMPANY, et al. | ) | Docket Nos. 50-424 |
| | ) | 50-425 |
| (Vogtle Electric Generating Plant, Units 1 and 2) | ) | |

APPLICANTS' MOTION FOR SUMMARY DISPOSITION OF JOINT INTERVENORS' CONTENTION 10.7 (HYDROGEN RECOMBINERS)

Pursuant to 10. C.F.R. § 2.749, the Applicants hereby move the Atomic Safety and Licensing Board ("Board") for summary disposition in Applicants' favor of Joint Intervenors' Contention 10.7. As grounds for this motion, Applicants state that no genuine issue of material fact exists to be heard with respect to Contention 10.7 and that Applicants are entitled to a decision in their favor on that contention as a matter of law.

In support of this motion for summary disposition of contention 10.7, Applicants rely upon:

(1) Applicants' Statement of Material Facts as to Which No Genuine Issue Exists to Be Heard Regarding Contention 10.7;

(2) Affidavit of Richard B. Miller, dated July 17, 1985; and

(3) All the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties.

I. Background.

As originally proposed by the Joint Intervenors, Contention 10 stated:

> Applicant has not shown that safety-related electrical and mechanical equipment and components will be environmentally qualified at the onset of operations and throughout the life of the plant as required by General Design Criteria 1, 2 and 4 of 10 C.F.R. 50, Appendix A and other applicable NRC rules.

Campaign for a Prosperous Georgia ("CPG") Supplement to Petition for Leave to Intervene and Request for Hearing (April 11, 1984) ("CPG Supplement") at 21; Georgians Against Nuclear Energy ("GANE") Supplement to Petition for Leave to Intervene and Request for Hearing (April 11, 1984) ("GANE Supplement") at 23. As part of the basis for this proposed contention, the Joint Intervenors asserted (1) that a hydrogen recombiner manufactured by Rockwell International had been found to have pressure transducers that failed under accident conditions in qualification testing and (2) that the Westinghouse hydrogen recombiners used at the Vogtle Electric Generating Plant ("VEGP") had not been tested for the effects of radiation. CPG Supplement at 24; GANE Supplement at 26.

When the Applicants responded to proposed Contention 10, they separated the bases supplied by the Joint Intervenors for that contention into eleven subcontentions, to

which they responded separately. The Applicants labelled the Joint Intervenors' allegations concerning the environmental qualification of the hydrogen recombiner systems at VEGP as subcontention 10.7. Addressing the specific arguments made by the Joint Intervenors, the Applicants stated that VEGP does not use Rockwell International hydrogen recombiners, which are catalytic-type recombiners; instead, it uses Westinghouse electric-type hydrogen recombiners. Applicants' Response to GANE and CPG Supplements to Petitions for Leave to Intervene (May 7, 1984) at 69.

On June 27, 1984, the Applicants submitted the Affidavit of William C. Ramsey, which described the radiation testing performed on the Westinghouse hydrogen recombiner system and noted that it contained no pressure transducers. Affidavit of William C. Ramsey (June 26, 1984) at ¶ 6. Attached as exhibits to that affidavit were copies of two reports prepared by Westinghouse describing portions of the environmental qualification testing program performed on the hydrogen recombiner system. By letter to the Board dated July 26, 1984, the Joint Intervenors responded to that affidavit, noting in part that while components of the hydrogen recombiner system had been qualification tested, the recombiner system as a whole had not.

In its Memorandum and Order on Special Prehearing Conference Held Pursuant to 10 C.F.R. 2.715a, dated

September 5, 1984, the Board admitted subcontention 10.7 as a contention in this proceeding. LBP-84-35, 20 N.R.C. 887, 905-06 (1984). That order, however, identified two specific questions that the Board believed needed to be addressed:

> Are there any types of transducers or sensors important to the proper functioning of the Vogtle electric-type hydrogen recombiner in an accident environment that require environmental qualification testing in an accident environment; if so, what testing is planned or completed and with what results?
>
> If environmental qualification testing in an accident environment of an entire prototype recombiner is not required, what is the basis for this conclusion? If such testing is planned or has been completed, what is the nature of the test and what criteria exist for assessing the adequacy of the test results?

Id. at 906.

The Joint Intervenors and the Applicants have now completed discovery on Contention 10.7. The following discovery requests and responses constitute the written discovery exchanged by the parties on that contention:

> Joint Intervenors' First Set of Interrogatories and Requests to Produce (Oct. 25, 1984) at 12-13.
>
> NRC Staff's Interrogatories to Campaign for a Prosperous Georgia (CPG) and Georgians Against Nuclear Energy (GANE) (Nov. 1, 1984) at 3-4.
>
> Applicants' First Set of Interrogatories and Request for Production of Documents (Nov. 5, 1984) at 14-15.
>
> Applicants' Response to Intervenors' First Set of Interrogatories and Request for Production of Documents (Nov. 29, 1984) at 73-78.

CPG/GANE's Response to Applicants' First Set of Interrogatories and Request for Production of Documents (Dec. 5, 1984) at (unnumbered pages) 21-22.

CPG/GANE's Response to NRC Staff's Interrogatories (Dec. 10, 1984) at 1-3.

Applicants' Third Set of Interrogatories and Request for Production of Documents (Jan. 4, 1985) at 13, 26.

Campaign for a Prosperous Georgia/Georgians Against Nuclear Energy Third Set of Interrogatories and Requests to Produce (Jan. 9, 1985) at 16.

Letter from T. Johnson to J. Joiner (Feb. 7, 1985) (enclosing supplemental information from Howard Deutsch in response to Applicants' Third Set of Interrogatories) at (unnumbered page) 2.

Applicants' Response to Intervenors' Third Set of Interrogatories and Request for Production of Documents (Feb. 13, 1985) at 67-69.

Applicants' First Supplemental Response to Intervenors' Third Set of Interrogatories and Request for Production of Documents (July 5, 1985) at 17-19.

In addition to this written discovery, the Applicants on March 25, 1985 deposed Dr. Howard Deutsch, whom the Joint Intervenors had identified as having provided information used by them in responding to the Applicants' written discovery requests concerning Contention 10.7. CPG/GANE's Response to Applicants' First Set of Interrogatories and Request for Production of Documents (Dec. 5, 1984) at (unnumbered page) 40; Intervenors Campaign for a Prosperous Georgia and Georgians Against Nuclear Energy Response to Applicants' Third Set of Interrogatories and Request for Production (Feb. 5, 1985) at 7.

II. Legal Standards for Summary Disposition.

The admission of a contention for adjudication in a licensing proceeding under the standards enunciated in 10 C.F.R. § 2.714 does not constitute an evaluation of the merits of that contention. Instead, such a ruling reflects merely the determination that the contention satisfies the criteria of specificity, asserted basis, and relevance. The admission of a contention also does not dictate that a hearing be held on the issues raised. Section 2.749(a) of the NRC's Rules of Practice authorizes a licensing board to grant a party to the proceeding summary disposition of an admitted contention without proceeding to a hearing.

That section provides that "[a]ny party to a proceeding may move, with or without supporting affidavits, for a decision by the presiding officer in that party's favor as to all or part of the matters in the proceeding." 10 C.F.R. § 2.749(a). Delineating the standard to be applied by a licensing board in ruling upon such a motion, that section further states:

> The presiding officer shall render the decision sought if the filings in the proceedings, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there is no genuine issue of fact and that the moving party is entitled to a decision as a matter of law.

10 C.F.R. § 2.749(d).

The standards governing summary disposition motions in an NPC licensing proceeding are quite similar to the standards applied by federal district courts to summary judgment motions under Rule 56 of the Federal Rules of Civil Procedure. Alabama Power Company (Joseph M. Farley Nuclear Plant, Units 1 and 2), ALAB-182, 7 A.E.C. 210, 217 (1974); Tennessee Valley Authority (Hartsville Nuclear Plant, Units 1A, 2A, 1B and 2B), ALAB-554 10 N.R.C. 15, 20 n.17 (1979). Where, as here, a motion for summary disposition is properly supported pursuant to the NRC's Rules of Practice, a party opposing the motion may not rest upon the mere allegations or denials of its answers. A party cannot avoid summary disposition on the basis of guesses or suspicions, or on the hope that at the hearing the movant's evidence may be discredited or that "something may turn up." Gulf States Utilities Company (River Bend Station, Units 1 and 2), LBP-75-10, 1 N.R.C. 246, 248 (1975). Rather, an opposing party must set forth specific facts showing that a genuine issue of fact remains. 10 C.F.R. § 2.749(b). Where the movant has made a proper showing for summary disposition and has supported his motion by affidavit, the opposing party must proffer countering evidentiary material or an affidavit explaining why it is impractical to do so. Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-83-32A, 17 N.R.C.

1170, 1174 n.4 (1983), citing Adickes v. Kress & Co., 398 U.S. 144, 160-61 (1970).

The Commission and its adjudicatory boards have encouraged the use of the summary disposition process where the proponent of a contention cannot establish that a genuine issue exists so that evidentiary hearing time is not unnecessarily devoted to such issues. Statement of Policy on Conduct of Licensing Proceedings, CLI-81-8, 13 N.R.C. 452, 457 (1981); see also Houston Lighting and Power Company (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 N.R.C. 542, 550 (1980) ("[T]he Section 2.749 summary disposition procedures provide in reality as well as in theory, an efficacious means of avoiding unnecessary and possibly time-consuming hearings on demonstrably insubstantial issues.")

III. Argument.

The hydrogen recombiners installed at the Vogtle Electric Generating Plant ("VEGP") are the Model B electric hydrogen recombiner systems manufactured by Westinghouse Electric Corporation ("Westinghouse"). The affidavit of Richard B. Miller submitted with this motion describes the design and operation of the Model B hydrogen recombiner system and the environmental qualification testing that has been performed on that system. As Mr. Miller's affidavit discusses, the Model B electric

hydrogen recombiner system contains no transducers or sensors that are important to its functioning and that portion of the recombiner system located inside containment has undergone extensive environmental qualification testing under accident conditions, which testing is adequate to qualify it for use at VEGP.

A. The Design and Operation of the Electric Hydrogen Recombiner System.

The combustible gas control system at VEGP, which is described in section 6.2.5 of the Applicants' Final Safety Analysis Report ("FSAR"), includes two Westinghouse Model B electric hydrogen recombiner systems for each unit. The Model B electric hydrogen recombiner system is a natural convection, flameless, thermal reactor type hydrogen/oxygen recombiner. Using only electric heaters it heats a continuous stream of the air-hydrogen mixture to a temperature sufficient for spontaneous recombination of the hydrogen with the oxygen in the air to form water vapor. Affidavit of Richard B. Miller ("Miller Affidavit") at ¶¶ 3-4.

Each hydrogen recombiner system consists of three main components: a recombination unit containing the electric heater banks, a power supply panel that contains the equipment necessary to power the heaters, and a control panel that directs the operation of the system. Only the

recombination unit is located inside containment at VEGP and would be exposed to the harsh post-LOCA environment. The power supply panel and control panel are located in the control building. Id. at ¶ 6.

When the recombination unit is energized, it heats the air inside the unit in a vertical duct, causing it to rise by natural convection. As that heated air rises, replacement air is drawn through intake louvers downward through the preheater section, which consists of a shroud placed around the central heaters to take advantage of heat conduction through the walls. The preheated air then flows through the flow orifice plate to the heater-recombination section. That section consists essentially of a vertical duct containing four banks of conventional electric heaters stacked vertically. Each bank contains sixty individual, U-shaped heating elements. Id. at ¶¶ 8-9.

By heating the airflow to a temperature above 1150° Fahrenheit, the heater-recombination section causes any free hydrogen present to react with oxygen in the containment atmosphere to form water vapor. The temperature above which recombination occurs is approximately 1135° Fahrenheit. Id. at ¶ 9.

After passing through the heater-recombination section, the airflow enters the exhaust chamber, which is at the top of the recombiner. There the hot gases are mixed with and cooled by air from the containment atmosphere and

then discharged at a lower temperature through the air discharge louvers back into containment. Id. at ¶ 10.

The recombination unit is completely encompassed within the outer enclosure, which protects the unit from impingement by containment spray. The intake louvers are on one side of the outer enclosure, and the discharge louvers are on the other three sides. Id. at ¶ 11.

Because the recombination unit uses natural convection to generate and maintain airflow through the unit, no circulation fans are required and the recombination unit has no moving parts. The recombination unit is a mechanically passive device. Id. at ¶ 12.

B. The Model B Electric Hydrogen Recombiner System Does Not Contain Any Transducers or Sensors That Are Important to Its Proper Functioning.

The first question raised by the Board about the hydrogen recombiners in its order of September 5, 1984 was whether the recombiner system contained any "types of transducers or sensors" important to its proper functioning in an accident environment. The Westinghouse Model B electric hydrogen recombiner system does not have any transducers or sensors that are important to or necessary for its operation following an accident.

The only sensors contained in the hydrogen recombiner system that would be subject to an accident environment are thermocouples attached to one heater bank in the

recombination unit that provide a temperature readout for convenience during testing. Those thermocouples, however, do not activate or govern in any way the operation of the recombiner system, are not needed for its proper operation, and will not be used to monitor its proper operation following a LOCA. Nor would a failure of that thermocouple system affect at all the operation of the hydrogen recombiner system. Id. at ¶ 18.

In the event of a loss-of-coolant accident ("LOCA") at VEGP, plant personnel will monitor the concentration of hydrogen inside containment by means of the containment hydrogen monitoring system. That system also does not contain any transducers or sensors important to its proper functioning that would be subject to the extreme environmental conditions that would result from a design basis accident. Affidavit of Glenn H. Stolz ("Stolz Affidavit") at ¶ 4.[1] Physically separate from and not part of the hydrogen recombiner systems, the containment hydrogen monitoring system is a Class 1E, Seismic Category 1 system designed to retain its integrity and operate under all conditions following a design basis accident. Id. at ¶ 3.

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[1] The containment hydrogen monitoring system is not located inside containment. Instead, it tests the hydrogen content of a sample of the containment atmosphere delivered to it from inside containment by means of a piping system. Stolz Affidavit at ¶ 4.

Depending upon containment atmospheric conditions, the correct power for recombiner operation will be determined. The power input necessary to cause the heater banks in the recombination unit to exceed the threshold temperature required for recombination to occur will be set on the control panel. Proper operation of the recombiner system is determined by observing the amount of electric power drawn by the recombination unit, which is shown by instrumentation on the control panel. Miller Affidavit at ¶¶ 16-18.

C. The Model B Electric Hydrogen Recombiner System Has Been Environmentally Qualified for Use at VEGP.

The second specific issue that the Board wished to have addressed concerning the VEGP hydrogen recombiner systems was whether an entire prototype recombiner system had undergone environmental qualification testing. Of the three main components comprising the Westinghouse Model B electric hydrogen recombiner system, the recombination unit, the power supply panel, and the control panel, only the recombination unit is located inside containment and could be subject to LOCA conditions. For that reason, only the recombination unit has been subjected to accident conditions in environmental qualification testing.[2/]

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[2/] As described in paragraphs 56 and 57 of Mr. Miller's affidavit, tests have been performed on the power supply panel and control panel to demonstrate their ability to operate in an elevated temperature environment.

1. The Generic Qualification Program for the Model B Hydrogen Recombiner System.

The Westinghouse Model B electric hydrogen recombiner system is the successor to the Westinghouse Model A recombiner system. Both models consist of a recombination unit, a power supply panel, and a control panel. The power supply and control panels are identical for both models and the recombination units are very similar. Id. at ¶¶ 58-62. Those changes from the Model A recombiner incorporated into the design of the Model B are discussed in paragraphs 59 through 62 of Mr. Miller's affidavit.

Designed in 1971, the Model A recombiner underwent extensive environmental qualification testing intended to demonstrate its ability to function properly following exposure to normal operating and accident conditions.[1/] When Westinghouse developed the Model B recombiner from the Model A design, it did not permit any changes that would have affected the qualification of the Model A recombiner. Westinghouse also initiated a test program to verify that those features of the Model B recombiner that differed from the Model A did not affect its environmental qualification. Id. at ¶¶ 21, 58.

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[1/] The environmental qualification testing program conducted by Westinghouse on the Model A recombiner has been reviewed and accepted by the Nuclear Regulatory Commission ("NRC") staff. Miller Affidavit at ¶ 20.

The generic qualification program that Westinghouse conducted for the Model A recombiner system, in conjunction with the testing performed on the Model B recombiner system, establishes that the Model B recombiner system is environmentally qualified for use at VEGP under the standards set out by IEEE 323-1974. Also, testing performed on the power cables located inside the recombination unit has demonstrated that those cables are qualified in compliance with the requirements of IEEE 383-1974. Id. at ¶ 21.

2. The Environmental Qualification Testing Program for the Model A Hydrogen Recombiner System.

For both the Model A and the Model B recombiner systems, only the recombination unit is located inside containment and might be exposed to loss-of-coolant accident ("LOCA") conditions. For that reason, only the recombination unit of the Model A recombiner was qualification tested under accident conditions. Id. at ¶ 22.

The environmental qualification testing performed by Westinghouse on the recombination unit of the Model A recombiner to demonstrate its ability to withstand exposure to the adverse environmental conditions that might result from a design basis accident is described in detail in paragraphs 23 through 55 of Mr. Miller's

affidavit. That testing program included the following tests, all of which the recombination unit or the particular components tested successfully passed:

(a) temperature cycling in which the recombination unit was heated and then cooled eighty times (Id. at ¶ 24);

(b) tests under LOCA conditions in which those components that might be affected by rapid pressurization or by high pressure steam were subjected to pressures and temperatures that represented maximum post-LOCA containment conditions (Id. at ¶¶ 25-35);

(c) radiation testing in which electrical components that might be adversely affected by radiation were exposed to several post-LOCA containment steam, pressure, temperature, and spray transients; were irradiated to a total integrated dose equal to the maximum dose to which those components might be exposed under normal operating and accident conditions; and were then subjected to another LOCA transient (Id. at ¶¶ 36-39);

(d) tests conducted to demonstrate the long term capability of the recombination unit and its heater banks in which heating elements were subjected to temperatures in excess of expected post-LOCA temperatures, the recombination unit was operated at temperatures well in excess of LOCA temperatures for a number of days, and the components of the recombination unit mounted on a small

scale frame were exposed to a pressure transient and then operated at the lower containment pressures predicted for post-LOCA environments (Id. at ¶¶ 40-43);

(e) a containment pressure test in which heating elements underwent twelve pressure cycles (Id. at ¶ 44);

(f) a hydrogen test in which the maximum temperature in the recombination unit was held constant while the hydrogen concentration was varied up to 6.2 volume percent (Id. at ¶ 45);

(g) an air flow blockage test in which the air flow openings in the recombination unit were gradually blocked while the unit was energized (Id. at ¶¶ 46-47);

(h) an over temperature test involving operating the recombination unit at maximum power and then introducing a four percent air-hydrogen mixture (Id. at ¶ 48);

(i) an over voltage test in which heating elements were subjected to a post-LOCA containment environment and then tested at 1307 VAC, which was well in excess of the voltage of 480 VAC applied during normal operation (Id. at ¶ 49);

(j) a heater capacity test in which the temperature distribution within the recombination unit was measured with various combinations of heating elements disconnected (Id. at ¶ 50); and

(k) a series of tests performed on the power cables that included thermal aging, irradiation, post-LOCA containment steam and spray exposure, voltage tests, and flame tests (Id. at ¶¶ 51-55).

Of these tests, the temperature cycling test (a), hydrogen test (f), air flow blockage test (g), over temperature test (h), heater capacity test (j), and that portion of the long term capability testing (d) consisting of operation of the recombination unit at temperatures in excess of LOCA temperatures were performed upon a production model of the recombination unit. Id. at ¶¶ 24, 41 45, 46, 48, 50.

The LOCA tests (b) were conducted upon full-scale production components mounted on a special heater frame that was approximately 3/4 the height of the heater frame in a production model recombination unit. The use of the special heater frame permitted the use of a test chamber of appropriate size (seven feet in diameter and twenty feet long) to generate the desired pressure and temperature profiles. Those tests sufficed to qualify the complete full-scale recombination unit to the conditions involved in the tests because of the simplicity of the design of that unit. A mechanically passive device, the recombination unit has no moving parts and consists primarily of structural members, power cables, and heating

elements. All of those components that could be affected by LOCA conditions were included in the tests, and no purpose would be served by testing a full size prototype. Construction of the special recombination unit was similar to a production model, and all of the components tested were full-sized, production components. The testing performed on the production components provided adequate environmental qualification information. Id. at ¶¶ 25-27.

Similarly, that part of the long term capability testing (d) involving operation of the recombination unit at the lower containment pressures predicted for a post-LOCA environment was conducted on full-sized components mounted on the special heater frame. Like the LOCA tests, those tests sufficed to establish the environmental qualification of the recombination unit because of the simplicity of its design. Id. at ¶ 42.

Westinghouse performed radiation testing (c) on those electrical components necessary to the operation of the recombination unit following a LOCA. The remaining components of the recombination unit were not tested because either they were not needed for the proper operation of the recombination unit or because they were made of metal and would not be adversely affected by radiation. Id. at ¶ 36.

The containment pressure test (e), over voltage test (i), and the part of the long term capability testing (d) consisting of exposing the heating elements to temperatures in excess of post-LOCA temperatures were conducted only upon the heating elements. In each of those tests the heating elements were the component in the recombination unit most likely to be damaged by the conditions involved in the test. The purpose of those tests was to examine the specific capabilities of the heating elements in order to demonstrate their performance. Therefore, other components of the recombination unit were not included in the tests. Id. at ¶¶ 40, 44, 49.

Finally, Westinghouse performed the cable testing (k) only upon samples of the power cables taken from a production recombination unit. The intent of those tests was to establish the qualification of those cables pursuant to the standards set by IEEE 383-1974, "Standard for Type Test of Class 1E Electric Cables, Field Splices, and Connections for Nuclear Power Generating Stations." Those cables are the only components o the recombination unit that need to be qualified to IEEE 383-1974 standards, and, therefore, the cable testing was conducted only on those cables. Id. at ¶ 51.

Westinghouse's generic environmental qualification testing program for the Model A recombiner system

demonstrated the environmental qualification of that recombiner system under the standards of IEEE 323-1974. The cable testing performed upon the power cables established the qualification of that cable material in accordance with IEEE 383-1974.

3. The Qualification Testing Performed on the Model B Hydrogen Recombiner System.

As stated above, the Model B hydrogen recombiner system is a slightly modified version of the older Model A recombiner system. The changes made to the design of the Model A recombiner that were incorporated into the Model B are depicted in paragraphs 59 through 62 of Mr. Miller's affidavit. That description makes readily apparent the very minor nature of those changes, almost all of which were structural modifications.

To verify that those changes from the design of the Model A did not affect the environmental qualification of the Model B recombiner, Westinghouse performed an additional series of tests, all involving a production model of the recombination unit. Those tests, which were all successfully executed, consisted of:

(a) a heat up test to measure the power required to reach recombination temperature (Id. at ¶ 64);

(b) an air flow test in which the flow rate was measured while the recombination unit was energized and found to surpass the design value (Id. at ¶ 65);

(c) an aging test involving cycling the recombination unit to operational temperatures and then to ambient temperatures 100 times (Id. at ¶ 66);

(d) hydrogen tests in which the recombination unit was energized and then exposed to air-hydrogen mixtures of various concentrations (Id. at ¶ 67); and

(e) spray tests in which the recombination unit successfully processed an air-hydrogen mixture following exposure to a chemical spray for several days (Id. at ¶ 68).

These tests, in conjunction with Westinghouse's generic qualification program for the Model A hydrogen recombiner system, demonstrate the environmental qualification of the Model B hydrogen recombiner system for use at VEGP. The maximum environmental extremes to which the recombination unit might be subjected under accident conditions at VEGP are (a) a temperature of 305° F (290°F plus a 15°F margin), (b) pressure of 50 psig, (c) radiation of $2 \times 10^8$ rads total integrated dose, and (d) a chemical spray of 2000 ppm boron buffered with sodium hydroxide to a long term (more than 100 minutes from the beginning of the LOCA) pH of 8.5. In the testing performed by Westinghouse, either a production recombination unit or those components that might suffer damage from the particular adverse environmental condition being simulated were

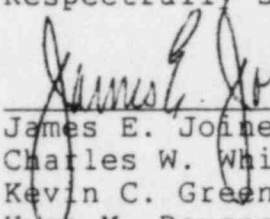
exposed to the following extreme conditions: (a) temperature of 309°F, (b) pressure of 77 psia (62.7 psig), (c) radiation of at least 2 x $10^8$ rads total integrated dose, and (d) a chemical spray of 2500 ppm boron buffered with sodium hydroxide to a pH of 10.0. Thus the VEGP post-LOCA environmental conditions are conservatively enveloped by the test conditions utilized by Westinghouse. Id. at ¶ 69.

IV. Conclusion.

For the reasons provided by the Applicants above, no genuine issue of material fact remains to be heard with respect to Contention 10.7. The Applicants have shown that the Joint Intervenors' challenge in Contention 10.7 to the environmental qualification of the Westinghouse Model B electric hydrogen recombiner systems used at VEGP lacks merit. Therefore, the Applicants respectfully request that the Board grant their motion for summary

disposition of Contention 10.7.

Respectfully submitted,



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Dated: July 18, 1985.

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CERTIFICATE OF SERVICE

I hereby certify that copies of Applicants' Motion for Summary Disposition of Joint Intervenors' Contention 10.7 (Hydrogen Recombiners), dated July 18, 1985, were served upon those persons on the attached Service List by deposit in the United States mail, postage prepaid, or where indicated by an asterisk (*) by hand delivery, this 18th day of July, 1985.

James E. Joiner
Attorney for Applicants

Dated: July 18, 1985

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