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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

DOCKETED  
USNRC

ATOMIC SAFETY AND LICENSING BOARD

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Before Administrative Judges:

Morton B. Margulies, Chairman  
Gustave A. Linenberger, Jr.  
Dr. Oscar H. Paris

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In the Matter of  
GEORGIA POWER COMPANY, et al.  
(Vogtle Electric Generating  
Plant, Units 1 and 2)

Docket Nos. 50-424-OL  
50-425-OL  
(ASLBP No. 84-499-01-OL)  
February 13, 1986

MEMORANDUM AND ORDER  
(Ruling on Applicants' Motion for Partial  
Reconsideration of Board Ruling re: Contention 10.1)

Introduction

Our Memorandum and Order of January 23, 1986 denied Applicants' motion for summary disposition of Contention 10.1 of Joint Intervenor Campaign for a Prosperous Georgia and Georgians Against Nuclear Energy (Intervenor) regarding radiation dose rate effects; said order designated six issues for hearing. In their motion of January 27, 1986 Applicants request partial reconsideration of that ruling with respect to the fourth issue, namely, that Applicants have not explicitly addressed the polymer applications other than for electric cable jackets and insulation that were identified by Intervenor. Applicants take the position that the other applications adverted to were adequately dealt with in Applicants' summary disposition motion, that they are irrelevant

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to the contention and that it would be burdensome to address them further. In a response dated February 10, 1986 the NRC (Staff) supported Applicants' motion for partial reconsideration; Staff's response was accompanied by affidavit. No response has been filed by Intervenor. As addressed below, we conclude that Applicants' motion is persuasive and we grant the motion.

#### Discussion

Contention 10.1 challenges the adequacy of the environmental qualification of four specific polymer materials to be used in safety related applications in the Vogtle Electric Generating Plant (VEGP). The contention is based upon the results of an experimental effort undertaken by the Sandia National Laboratory (Sandia) and reported in NUREG/CR-2157. That report dealt with experiments performed to determine the radiation induced degradation of and dose rate effects upon the mechanical properties of polymer materials under conditions intended to simulate nuclear power plant conditions. (The term "dose rate effects" has been previously explained as referring to the possibility that certain materials may experience a greater degradation of mechanical and or electrical properties from a lower dose rate exposure than from a higher dose rate exposure even though the integrated or total dose is the same for both exposures.) In their summary disposition motion Applicants' affiants stated that the above cited Sandia report established that of the four polymers identified for safety related applications in VEGP only one -- cross-linked polyolefin

(XLPO) -- exhibited degradation of mechanical properties and was subject to dose rate effects. The XLPO polymer is to be used in VEGP only as jacket and insulation material for certain electric cables. A subsequent Sandia test program looked at the electrical properties of XLPO and determined that despite the radiation induced mechanical degradation the insulation properly performed its electrical functions (reported in NUREG/CR-2932). Applicants stated that the other three polymers that will be used in VEGP applications do not involve their electrical properties; hence they are not of concern inasmuch as their mechanical properties did not significantly degrade from radiation exposure considerably in excess of what will be expected in VEGP. It is for these reasons that Applicants contend that the discussion of other polymer applications in their summary disposition motion is adequate and that a detailed discussion of polymers other than XLPO is irrelevant to any VEGP safety concerns raised by Contention 10.1. Nor have Intervenor presented a basis for believing otherwise. Were an issue of material fact in dispute, Applicants' concern about the burden of undertaking such a discussion would not be considered meritorious.

The Staff's response dated February 10, 1986 is supportive of Applicants' motion. Staff's affiant states facts that are in accord with the motion of Applicants and that are uncontroverted. We find that there is no basis to challenge the statements of Applicants and Staff, and the Board agrees that the fourth item in our order of January 23, 1986 does not constitute an unresolved issue of material fact.

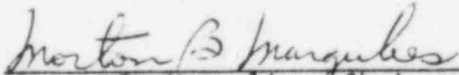
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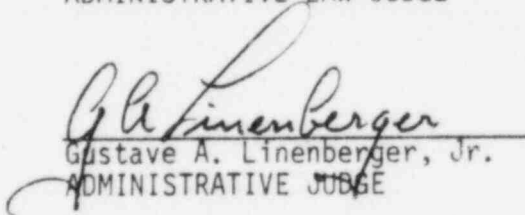
Based upon the foregoing the Board finds that the fourth issue of our Memorandum and Order of January 23, 1986, to wit:

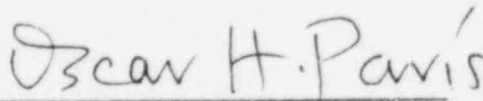
Applicants have not explicitly addressed the polymer applications other than cable jackets and insulation indentified by Intervenor

does not constitute an issue of material fact in dispute. Accordingly, Applicants' motion for partial reconsideration (dated January 27, 1986) is granted and the above-stated item is deleted as an issue in controversy.

THE ATOMIC SAFETY AND  
LICENSING BOARD

  
Morton B. Margulies, Chairman  
ADMINISTRATIVE LAW JUDGE

  
Gustave A. Linenberger, Jr.  
ADMINISTRATIVE JUDGE

  
Dr. Oscar H. Paris  
ADMINISTRATIVE JUDGE

Dated at Bethesda, Maryland  
this 13th day of February, 1986.