UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	§	
	§	
HOUSTON LIGHTING & POWER	§	
COMPANY	§	Docket No. 50-466
	§	
(Allens Creek Nuclear	§	
Generating Station, Unit	§	
No. 1)	§	

APPLICANT'S MOTION FOR SUMMARY DISPOSITION ON INTERVENOR MCCORKLE'S CONTENTION NO. 14

Applicant moves the Board under 10 CFR § 2.749 to grant summary disposition with respect to Intervenor McCorkle's Contention No. 14 relating to fuel hydriding and densification. As shown in the accompanying statement of material facts as to which there is no genuine issue to be heard, and the affidavit of Noel C. Shirley, there is no issue to try in this proceeding and Applicant is entitled under § 2.749 to have the Contention summarily dismissed as a matter of law.

The Contention

McCorkle Contention 14 states:

> The fuel rods to be used are not safe because of clad failures and off-gas activity caused by hydriding and the effects of fuel densification which increases the power spikes and heat generation rate.

Argument

General Electric has taken into account both fuel hydriding and fuel densification in the design and manufacture of fuel for ACNGS in order to prevent fuel rod failure. As the affidavit of Noel C. Shirley shows, it is well known that hydriding is caused by an internal attack on fuel rod cladding by hydrogen which has been introduced into the fuel rod during manufacture. This hydrogen attack may cause perforation of the cladding. Two changes have been made during the manufacturing process to prevent hydrogen contamination inside the fuel rod: (1) a hot vacuum outgassing system removes moisture from the fuel and rod prior to welding, and (2) a hydrogen getter in the form of Zirconium alloy chips, installed inside the rod, combines with any hydrogen present there. No hydride-induced failures have occurred in General Electric fuel rods since these changes have been instituted.

General Electric has also taken steps to assure that cladding failure does not occur because of fuel densification. These steps include: (1) conducting quality control tests to make sure that the fuel's initial density is such that further densification during irradiation does not adversely affect fuel performance, and (2) imposing conservative limits on Linear Heat Generation Rate (LHGR) to

make sure that actual LHGR will remain within design limits if densification does occur. No fuel cladding failures or collapses due to densification have ever occurred in BWR fuel.

Since Applicant has considered fuel hydriding and fuel densification for ACNGS, no genuine issue of material fact remains to be heard, and, accordingly, Applicant is entitled to summary disposition on this contention as a matter of law.