# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

### BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the M	latter of	- 1 m
HOUSTON COMPANY	LIGHTING & POWER	N. CON CON C
(Allens Generati No. 1)	Creek Nuclear ing Station, Unit	ALL UN LIN LI

Docket No. 50-466

# APPLICANT'S MOTION FOR SUMMARY DISPOSITION ON INTERVENOR DOHERTY'S CONTENTION NO. 24

Applicant moves the Board under 10 CFR § 2.749 to grant summary disposition with respect to Intervenor Doherty's Contention No. 24 relating to control rod drop accident. As shown in the accompanying statement of material facts as to which there is no genuine issue to be heard, and affidavit of Richard C. Stirn, 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

Doherty's Contention No. 24, as admitted by the Board, states:

Applicant has not provided a basis for showing that the reactivity insertion from any dropped control rod will be sufficiently small to prevent the peak

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energy yield from exceeding 280 calories/gram of fuel.

### Argument

Contrary to Intervenor Doherty's assertions, Applicant has performed a detailed analysis which demonstrates that the reactivity insertion from any dropped rod under the most adverse circumstances will be sufficiently small to prevent a peak energy yield from exceeding the design limit required by the NRC of 280 calories/gram of fuel. Intervenor has neither alleged nor in any way indicated what is inadequate about this analysis.

As the Stirn affidavit describes, this comprehensive analysis begins with the postulation of the worst possible sequence of events for producing a rapid reactivity insertion. The assumed circumstances account for all factors which could maximize individual control rod reactivity worth within the restrictions placed on rod position by the Rod Control Pattern System and operating technical specifications. It is then assumed that the maximum reactivity worth control rod blade completely severs from its drive; the cause of the disconnection is not a concern since the non-mechanistic assumption of failure encompasses all possibilities. The rod with the highest worth is then assumed to accelerate with gravity over a distance which would result in the most severe reactivity addition and addition rate. These multiple

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assumptions assure that no other conceivable sequence could add a greater amount of positive reactivity, and at a faster rate.

The maximum incremental reactivity to be added in the accident is fully determined by these assumptions. A calculation of specific fuel enthalpy follows straightforwardly once the maximum incremental worth is set. In this case, the peak enthalpy for the maximum incremental worth rod is only 48.2 percent of the design limit.

Accordingly, there is no genuine issue of material fact to be tried in this proceeding and Applicant is entitled to summary disposition on this contention as a matter of law.

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