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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

March 12, 1980

BEFORE THE ATOMIC SAFETY & LICENSING BOARD

In the Matter of

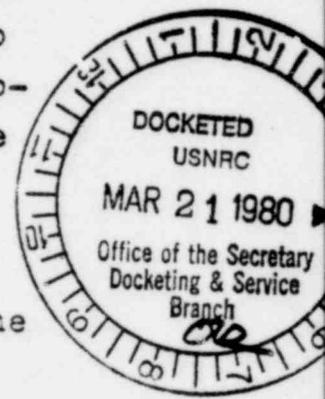
HOUSTON LIGHTING AND POWER COMPANY

Docket No. 50-466

(Allens Creek Nuclear Generating  
Station, Unit 1)

JOHN F. DOHERTY'S CONTENTION #47

John F. Doherty, Intervenor in the above Construction License Proceedings files this Contention #47, pursuant to 10 CFR 2.714 of the Commissions Rules of Practice, and supporting statement to support the filing after the deadline for contentions for this proceeding.



Contention #47

Intervenor contends Applicant's main generator turbine is not designed sufficiently to prevent turbine missiles from damaging critical components of the system. Further, that stoppage or vibration of the turbine following missile thrust will create dangerous halting and damage to the turbine and main steam power train of the plant.

That one turbine has indeed expelled a portion of a turbine disk is shown by Board Notification BN 80-8, which sites a preliminary report of a portion of a disc hurled during turbine synchronization at 1800 rpm on Feb. 14, 1980, at the Yankee Rowe nuclear plant in Massachusetts. Cracking of turbine disks is the subject of Board Notification BN 80-4, which indicates "the cracking may be more widespread than previously reported" and that one manufacturer, Westinghouse, is, "[i]n the process of elevating some of their previously estimated turbine missile energies". ( BN 80-4, January 16, 1980). The largest cracks detected to date were found at Zion Station, Unit 1, and reported by the Inspection & Enforcement Division of the NRC on November 20, 1979. Further, on March 11, 1980, special inspections were ordered for 10 nuclear reactors of their turbines. Because of uncertainty of these calculations of missile energy and the dangers of missiles, to the functioning of the ACNGS and consequent risk to this Intervenor's health and environmental interests, he urges admission of this contention to the proceedings.

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Supporting Statement for Contention #47

This Intervenor believes the above Contention should be admitted to the proceedings because

- a. There was far less basis to argue the Contentions admissibility at the original deadline, because the Yankee Rowe incident had not occurred. In short the Contention is currently based on new evidence.
- b. No other party has raised the issue. There are no current plans to consider the issue at this moment within the NRC.
- c. Consideration of the issue in regard to the large turbine to be used at ACNGS will develop an important part of the record. At this moment, it appears most of the turbines involved in the ordered inspections and incidents such as Shippingport, 1974, are much smaller than ACNGS.
- d. No existing party has indicated an interest in this issue to date.
- e. It does not appear the issue will unreasonably delay these proceedings. The issue is a well focused one which is unlikely to broaden the proceedings greatly.

Respectfully Submitted,

*John F. Doherty*  
John F. Doherty

Copies of "JOHN F. DOHERTY'S CONTENTION #47" were served on the parties below via first class U. S. Postal Service, this 12<sup>th</sup> of March, 1980.

*John F. Doherty*  
John F. Doherty

- Sheldon J. Wolfe, Esq. (NRC)
- Gustave A. Linenberger (NRC)
- Dr. E. Leonard Cheatum (NRC)
- Richard A. Lowerre, Esq. (Texas)
- R. Gordon Gooch, Esq. (Applicant)
- J. Gregory Copeland, Esq. (Applicant)
- James M. Scott, Jr. Esq. (TexPIRG)
- Brenda McCorkle, Esq.
- Wayne Rentfro
- Dr. David Marrack
- Carro Hinderstein, Esq.

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