

UNITED STATES OF AMERICA      April 7, 1980  
NUCLEAR REGULATOR COMMISSION  
BEFORE THE ATOMIC SAFETY & LICENSING BOARD

In the Matter of:

HOUSON LIGHTING & POWER COMPANY  
(Allens Creek Nuclear Generating  
Station, Unit 1)

Docket No. 50-466 CP

JOHN F. DOHERTY'S CONTENTIONS #48 and #49.

Pursuant to 10 CFR 2.714, John F. Doherty, Intervenor in the above Construction License Proceedings files the contentions below. Each is first presented, followed by a supporting statement providing additional basis, and concluded by a statement as to why the contention should be admitted to the proceedings despite the deadline for Contentions being passed.

TEXT OF CONTENTION #48

Intervenor Contends the ACNGS should be designed with a control rod drive return line (CRD), because this source of high pressure water functions as an additional safeguard against events where there is water loss from the reactor vessel yet pressure remains high.

SUPPORTING STATEMENT

This Contention is supported by the fact on three occasions of major Boiling Water Reactor events, the CRD return line and pump have functioned as significant systems to keep a safe reactor core inventory, despite this system's not being a "safety" or "safety related" system. These events were:

- a. The fire at the Brown's Ferry Unit 1, on March 22, 1975.
- b. The drywell overpressurization event at Dresden II, on June 5, 1970.
- c. The loss of core inventory at Oyster Creek, on May 2, 1979.

Further evidence the CRD return line system is of safety value is that there will be periods as long as a week where the ACNGS will be permitted to run with pumps to the high pressure core spray system (HPCS) out of service. In the event of occurrences like those listed above, there would be no source of high pressure for maintaining the reactor core inventory or cooling with HPCS out of service. Hence, the CRD return line offers a back-up system in the event of out of service for the HPCS pumps.

This Intervenor would also point out that "CRD movement may be somewhat slow" on the ACNGS "since the exhaust header pressure is higher" according to letter enclosure from G. G. Sherwood of General Electric to V. Stell of NRC Division of Operating Reactors of May 22, 1979.

Although there is evidently sufficient reason to remove the CRD return line because of unexpected nozzle cracking in the reactor, this Intervenor contends that the significance to safety so far shown by having this non-safety system available outweighs the advantage of removing it due to nozzle cracks. In addition, it should be pointed out that a solution to the

OVER

Docket No. STN 50-437.

SUPPORTING STATEMENT

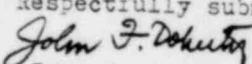
This Contention is based on the unique properties of the soil for the proposed site as offering little of the protection a site with more rock and rocklike strata would give the public and the environment. The "core ladle" concept which was supported for any reactor site in the American Physical Society Report (Reviews of Modern Physics, 47 Supp. Summer, 1975; Pg. S-111) on Nuclear Safety, appears from NUREG-0054, to offer several days of additional time in which molten uranium could be prevented from contacting the moist clays and silts of the AONGS where subsequent steam explosions such as described in ASME-1400, "Reactor Safety Study" (page VIII-77,78) would be likely to occur. The minimum delay of the "core ladle" would make evacuation more easy.

SUPPORTING STATEMENT FOR TIMELINESS UNDER 10 CFR 2.714

- 1/ This Intervenor asserts there has been good cause for late filing because no satisfactory core ladle has been presented for a nuclear plant until this for the Floating Nuclear Plant, presented in a February 1980 NRC publication where the device has had extensive examination. The document NUREG-0054, Supp. 5 was unavailable to this Intervenor until March 19, 1980.
- 2/ There is no current commission effort to have Applicant's system or any BWR system equipped with a "core ladle" device for plants situated on clay, silt, sand and gravel.
- 3/ Consideration of this, in view of the evacuation and population contentions raised by Intervenor J. Morgan Bishop and other parties would give the opportunity to consider melt-delay systems in relation to demographic conditions.
- 4/ No other party has asserted the right to bring up this device for core melt mitigation or delay.
- 5/ Where the consequences of meltdown are severe, the use of time to consider its mitigation is worthy. This Intervenor has raised several other issues in this proceeding, and hence his participation as a question is moot.

\*\*\*\*\*

Therefore, this Intervenor seeks admission of the above Contentions numbers 48 and 49.

Respectfully submitted  
  
John F. Doherty

Copies of "JOHN F. DOHERTY'S CONTENTIONS #48 and #49" were served on the parties below on this 8 of April, 1980, via First Class U.S. Postal Service.

Sheldon J. Wolfe, Esq. (NRC)  
Gustave A. Linenberger, (NRC)  
Dr. E. Leonard Cheatum, (NRC)  
Steven M. Schinko, Esq. (NRC)  
Richard A. Lowerre, Esq. (State of Texas)  
R. Gordon Gooch, Esq. (Applicant)  
J. Gregory Copeland, Esq. (Applicant)  
The Intervening Parties.