

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSIONBEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

HOUSTON LIGHTING AND POWER
COMPANY

Docket No. 50-466 CP

(Allens Creek Nuclear Generating
Station, Unit 1)

JOHN F. DOHERTY'S CONTENTIONS #43 and #44.

John F. Doherty, Intervenor in the above proceedings files the below contentions with supporting statements. The supporting statements are to justify filing of the contentions under 10 CFR 2.714 (a).

Contention 43

Intervenor contends Applicant's stainless steel components including safety system piping, and nuclear steam supply system piping will be coated and cleaned with compounds that could contribute to corrosion, intergranular cracking or stress corrosion cracking. These compounds contain chlorides, fluorides, lead, zinc, copper, sulfur, or mercury which are leachable or could be released by breakdown caused by radiation. Further, that Applicant's coating and cleaning program should conform to Regulatory Guide 1.54, because cracking of piping has been observed in several General Electric Units (i. e., Duane Arnold Energy Center, 1978) of similar construction to ACRGS. And, NUREG-0152, General Electric Standard Safety Analysis Report, pg. A-5, indicate the General Electric position is to take exception to the provisions of Regulatory Guide 1.54, (Feb. 8, 1977).

Supporting statement under 10 CFR 2.714 (a)

This contention was not filed previously because Intervenor was unaware that stress corrosion cracking might be due to factors such as those mentioned in Regulatory Guide 1.54, or that further analysis was needed to determine additional measures to reduce accident probabilities such as those discussed in the Advisory Committee on Reactor Safeguards report of August 16, 1979, on Pipe Cracking in light-water reactors. (ACRS Report to the Commission, August 16, 1979). No other intervenor has raised the coatings and cleaning compounds issues, although TexPIRG has raised stress corrosion cracking. In view of the unresolved situation with regard to General Electric in GE33AR-238, and Regulatory Guide 1.54, the contention will be of value for the record. The issue does not appear to be part of the ACRS or Pipe Crack Study Group current program. And, it will not delay proceedings as it is logically related to TexPIRG'S accepted Contention #10.

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Contention 44

Intervenor contends the ACNCS design is unsafe against pipe-break accidents at pipe cracks initiated by water hammer. Further, analysis of such an event is required to indicate what must be done to cope with accidents caused by large deep cracks in the recirculation pipes such as those discovered at the Duane Arnold Energy Center, in 1978. According to the 1978 NRC Annual Report 100 incidents involving water hammer have occurred in both PWRs and BWRs. A recent Advisory Committee on Reactor Safeguards (ACRS) report to the Commission (August 16, 1979, indicates there is need for more adequate inservice inspection of piping including feedwater and steam supply piping, residual heat removal system, ECCS, containment spray system, and service water systems in nuclear plants such as ACNCS.

Intervenor contends:

- (a) Applicant should be required to analyze and determine what additional measures may be taken to mitigate the consequences of water hammer on system piping listed above, and. . .
- (b) Applicant should be required to analyze and determine what additional measure may be taken to mitigate the consequences of water hammer on system piping listed above which has suffered the various types of cracking observed in NUREG- 0531, and NUREG-75/067, and. . .
- (c) Applicant should be required to analyze and determine what additional measures can reduce the probability of an event where water hammer causes a cracked pipe to break.

Supporting Statement under "new evidence" and 10 CFR 2.714 (a)

Intervenor files this contention on the basis of new evidence contained in the ACRS report to the Commission of August 16, 1979. Previously, various groups such as the Pipe Crack Study Group, as reported in NUREG-0531, appeared to have layed the problem of pipe crack to rest with various metalurgical techniques. However, the ACRS report is the first to link pipe crack and water hammer together, and Intervenor contends this justifies a late filing.

However, to be certain, Intervenor submits reasons as required under 10 CFR 2.714(a) why the contention is eligible for consideration. Intervenor submits that TexPIRG Contention #10 is too narrow to include this matter and hence without admission here, it would go uncontested. Pipe crack is a major concern of the NRC, but more significant is Water Hammer which is in group A of NRC unresolved safety issues. It appears ACRS review is mainly centered on the PWR with regard to water hammer, which means BWR water hammer should have some forum, even if under the narrower question proposed here. Consideration of an unresolved safety issue is likely to broaden the proceedings in a reasonable manner, and that assist in developing a sound record.

Respectfully submitted,

Enc.: "John F. Doherty's Amended Contentions #4, #11, #20, #36., with service list.

John F. Doherty

John F. Doherty

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