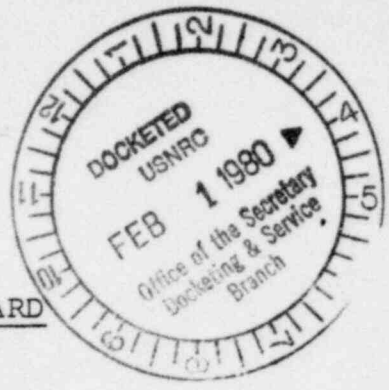

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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)		

RESPONSES TO THE ELEVENTH
SET OF INTERROGATORIES FROM JOHN DOHERTY

In response to the interrogatories propounded by John F. Doherty, Houston Lighting & Power Company (Applicant) answers as follows:

INTERROGATORY NO. 11-1:

Does Applicant maintain that when its South Texas Project plant or plants are operating it will have more interconnections with neighboring utilities than any other utility which operates a nuclear plant? (Relevant to Doherty 30)

ANSWER:

Applicant has made no such comparison.

INTERROGATORY NO. 11-2:

Does Applicant consider its Standby Liquid Control system is redundant and diverse to its SCRAM system?

ANSWER:

Yes, the Standby Liquid Control System is a redundant and diverse means for shutting down the reactor.

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INTERROGATORY NO. 11-3:

Does Applicant maintain its SCRAM safety system meets NRC standards of reliability? (Relevant to Doherty 17)

ANSWER:

Applicant cannot answer this question without a specific reference to the "NRC standards of reliability" in question.

INTERROGATORY NO. 11-4:

Has the preliminary generic assessment of the radiological consequence of an ATWS even been prepared by General Electric as mentioned in your reply to Interrogatory Set #1, Question #1.

ANSWER:

The preliminary assessment of the radiological consequences of an ATWS event is given in "Assessment of BWR Mitigation of ATWS," May, 1979. We have previously agreed to make this document available for inspection at the EDC upon issuance of an appropriate protective order from the Licensing Board.

INTERROGATORY NO. 11-5:

Has General Electric like Westinghouse developed a code to predict fission gas release in high burn-up fuel?

ANSWER:

General Electric has developed a computer code which includes the effect of fission gas accumulation due to fuel burn-up as a function of time.

INTERROGATORY NO. 11-6:

If so, does the G.E. model assume release rates are the same at high burn-up as at low?

ANSWER:

No.

INTERROGATORY NO. 11-7:

Has General Electric any experimental data to your knowledge on fission gas release (FGR) like that shown for the German PWR in Fig. 6 (page 20) of NUREG-0418, "Fission Gas Release from Fuel at High Burnup?"

ANSWER:

Yes.

INTERROGATORY NO. 11-8:

Does Applicant's off-gas system use loop seals or relief valves for venting in explosive mixture regions?

ANSWER:

The off-gas system design is such that explosive mixtures do not exist anywhere in the system. The ACNGS system does not use loop seals. The hydrogen analyzers have pressure relief valves.

INTERROGATORY NO. 11-9:

Is the neutron monitoring system described in report APED-5706 to be used in ACNGS?

a. Describe any modifications from that system which will be put into ACNGS, and list and make available any descriptive documents, please.

ANSWER:

The neutron monitoring system described by APED-5706 will not be used at ACNGS.

a. The neutron monitoring system for Allens Creek is described in PSAR Section 7.6.1.6.

INTERROGATORY NO. 11-10:

NUREG/CR-0442, "Technical Report on Operating Experience with BWR Off-gas Systems, on page 19, suggests offgas systems with charcoal adsorber beds required additional preventative measures to avoid substained burning of the charcoal adsorber beds. Further, it states:

> "A Hydrogen-oxygen ignition in the off-gas system could result in subsequent ignition in isolated local regions of the charcoal beds that contain carbon fines (it says "fines" should say "fires") thereby creating elevated temperatures in the charcoal beds which could lead to release of the previously accumulated radioactive materials."
>
> a. In view of this finding, how can taking out an H_2O spray system be justified?
>
> b. Is applicant considering keeping such a spray system in place?

ANSWER:

> a. There has never been a water spray system in the design of the charcoal adsorber in the offgas system at ACNGS.
>
> b. Not applicable.

INTERROGATORY NO. 11-11:

Is the offgas system of ACNGS a "augmented offgas system?"

ANSWER:

The ACNGS Off-Gas System is not considered an "augmented" off-gas System. The term "augmented" refers to existing systems at older operating facilities that have been upgraded to reduce releases from this source.

INTERROGATORY NO. 11-12:

Is the off-gas system considered "safety related?"

ANSWER:

No.

INTERROGATORY NO. 11-13:

Will all off-gas pipes and off-gas instrument lines be marked to prevent accidental detonation by maintenance workers such as welders?

ANSWER:

No.

INTERROGATORY NO. 11-14:

Why did Applicant change its steel containment shell from semi-elipsoidal to hemispherical in shape?

ANSWER:

A hemispherical dome, though approximately the same cost as the semi-ellipsoidal dome, is much stronger in accommodating the design loads.

INTERROGATORY NO. 11-15:

What is the "42" X 40" vent in opening El. 151.25" in the biological shield wall shown in Figure 2.2-3, of "The Containment Structures Design Report of the ACNGS Unit 1, by Ebasco Services, Inc.?

a. Explain its purpose, please, also.

ANSWER:

The opening is a penetration through the biological shield wall for Drywell Cooling System ductwork. This ductwork supplies cooling air to the Reactor Pressure Vessel (RPV) skirt and pedestal area, and the biological shield wall.

All documents requested will be made available at the Engineering Development Complex.

Respectfully submitted,

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ATTORNEYS FOR APPLICANT
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COMPANY

STATE OF TEXAS §
§
COUNTY OF HARRIS §

BEFORE ME, the undersigned authority, on this day personally appeared Jon G. White, who upon his oath stated that he has answered the foregoing Responses to the Eleventh Set of Interrogatories from John Doherty to Houston Lighting & Power Company in his capacity as Supervising Engineer for Houston Lighting & Power Company, and all statements contained therein are true and correct to the best of his knowledge and belief.

Jon G. White
Jon G. White

SUBSCRIBED AND SWORN TO BEFORE ME on this the 30th day of January, 1980.

Cheryl A Southwick
NOTARY PUBLIC IN AND FOR
HARRIS COUNTY, T E X A S

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 1)	§	
	§	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Responses to the Eleventh Set of Interrogatories from John Doherty in the above-captioned proceeding were served on the following by deposit in the United States mail, postage prepaid, or by hand-delivery this 30th day of January, 1980.

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Hon. Leroy H. Grebe
County Judge, Austin County
P. O. Box 99
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Appeal Board
U.S. Nuclear Regulatory
Commission
Washington, D. C. 20555

Atomic Safety and Licensing
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