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)		

APPLICANT'S RESPONSE TO JOHN F. DOHERTY'S NINTH SET OF INTERROGATORIES

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

INTERROGATORY NO. 9-1:

What is the number of "studbolts" on the ACNGS reactor vessel?

RESPONSE:

There are 72 studs on the ACNGS reactor vessel.

INTERROGATORY NO. 9-2:

Who is the manufacturer of the stand-by emergency diesel engines, if selected?

RESPONSE:

General Motors has been selected for the HPCS diesels. The manufacturer of other diesels has not been selected.

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INTERROGATORY NO. 9-3:

Is Applicant's emergency stand-by diesel engine of such new design that there is no history of start-up failure, and hence that unreliability of start-up cannot be contended?

RESPONSE:

The ACNGS diesel engine system is of a relatively new design. During reliability testing in compliance with NRC requirements, there has been a history of no failures.

INTERROGATORY NO. 9-4:

Does Applicant take the position that it has made so many changes from all other designs reported in NUREG-0660 that allegations of unreliability are without basis?

RESPONSE:

Yes.

INTERROGATORY NO. 9-5:

What is the source of power or fuel for the starter or start-up system of Applicant's emergency diesel generators?

RESPONSE:

An air system.

INTERROGATORY NO. 9-6:

Will the ACNGS have redundant SCRAM air heater exhaust valves?

RESPONSE:

Yes.

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INTERROGATORY NO. 9-7:

Does Applicant at this time maintain that the water level sensing and indicator devices in the reactor core differ from those at:

(a) Three Mile Island Unit II, immediately prior to March 28, 1979?

(b) The Oyster Creek Nuclear Plant in New Jersey?

RESPONSE:

(a) TMI-2 and ACNGS use differential pressure transmitters to generate level measurement signals. Applicant is presently unaware of the exact design and manufacture of the devices used at TMI-2.

(b) The Oyster Creek water level sensing and indicator devices are not the same as those to be used in Allens Creek. However, the devices at both plants measure differential pressure.

INTERROGATORY NO. 9-8:

Will ACNGS differ from other GESSAR-238 referenced nuclear plants with regard to water level indicators in the reactor core?

RESPONSE:

The Allens Creek RPV water level indicators are the same as the other "referenced GESSAR-238" RPV water level indicators.

INTERROGATORY NO. 9-9:

If the answer to 9-9 above is "yes", please list those differences.

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RESPONSE:

Not applicable.

INTERROGATORY NO. 9-10:

Will ACNGS use the same sensing mode or modes as those of other GESSAR-238, referenced plants?

RESPONSE:

Assuming the "mode" here means method, ACNGS uses the same water level sensing method as the other "referenced GESSAR-238 BWR 6" plants.

INTERROGATORY NO. 9-11:

If ACNGS will use different modes, please indicate what these modes are.

RESPONSE:

Not applicable.

INTERROGATORY NO. 9-12:

Does Applicant's planned water level sensing and indicating system have a history of "no failures"?

RESPONSE:

To the best of Applicant's knowledge, the planned ACNGS water level sensing and indicating system has no recurring failure history.

INTERROGATORY NO. 9-13:

Has Applicant's water level sensing system ever been used in any nuclear facility before?

RESPONSE:

The sensing principle of electronic differential pressure transmitters in measuring water levels in the

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RPV has already been used in many BWR plants.

INTERROGATORY NO. 9-14:

If so, indicate please where the sensing system has its longest usage (that is: which power plant).

RESPONSE:

The principle of electronic differential pressure transmitters for measuring water levels in the RPV has been used in plants as early as Dresden 2. Dresden 2 went critical on 1/1/70.

INTERROGATORY NO. 9-15:

Has Applicant's water level indicating system ever been used in a nuclear facility?

RESPONSE:

See response to Interrogatory No. 9-13.

INTERROGATORY NO. 9-16:

If so, indicate please where the indicating system has its longest usage (that is: which power plant).

RESPONSE:

See response to Interrogatory No. 9-14.

INTERROGATORY NO. 9-17:

Does Applicant maintain there is not enough thermal shielding and insulation in its design for ACNGS to loosen during a LOCA and block the drywell drain in the manner described in Contention #13?

RESPONSE:

Yes.

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INTERROGATORY NO. 9-18:

Does Applicant maintain the thermal shielding and insulation is of a type not susceptible to blocking the drywell drain as described in Contention #13?

RESPONSE:

Yes.

INTERROGATORY NO. 9-19:

Does Applicant contend the ACNGS has one-of-a-kind design features which will prevent blockage of the drywell drain as described in Contention #13?

RESPONSE:

No.

INTERROGATORY NO. 9-20:

Does Applicant maintain the ACNGS has design features that differ from GESSAR-238" plants that would mitigate [sic] the event postulated in Contention #13?

RESPONSE:

No.

INTERROGATORY NO. 9-21:

Does Applicant maintain its Main Steam Line Radiation Monitoring system differs from the GESSAR-238 system?

RESPONSE:

No.

INTERROGATORY NO. 9-22:

Does Applicant maintain its MSLRM system can detect rapid fuel failure as rapidly as systems in the

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most recently constructured PWRs?

RESPONSE:

Based on the information contained in NUREG-0401, Applicant believes that the MSLRM system can detect gross rapid fuel failure as rapidly as presently installed PWR radiation monitoring systems.

INTERROGATORY NO. 9-23:

Does Applicant plan to construct a system of MSLRM capable of detecting fuel failure in less than a minute?

RESPONSE:

The ACNGS MSLRM system is designed to detect gross fuel failure in less than one minute.

INTERROGATORY NO. 9-24:

If the answer to 9-23 is "yes", please explain the system or provide explanatory material.

RESPONSE:

See ACNGS PSAR Section 11.4.2.2.

INTERROGATORY NO. 9-25:

Does Applicant know at this time of any MSLRM system capable of detecting fuel failure in less than a minute?

RESPONSE:

All current MSLRM systems designed by GE are capable of detecting gross fuel failure in less than one minute.

INTERROGATORY NO. 9-26:

If the answer to 9-25 is "yes", please explain the system or provide explanatory material.

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RESPONSE:

See ACNGS PSAR Section 11.4.2.2.

INTERROGATORY NO. 9-27:

Is Applicant's planned MSLRM system in use in any current operating nuclear power plant?

RESPONSE:

Yes.

INTERROGATORY NO. 9-28:

If the answer to 9-27 is "yes", indicate to the best of your knowledge which power plant and how long it has been in use.

RESPONSE:

Similar MSLRM designs have been used in many BWR plants beginning as early as Dresden 2. Dresden 2 went critical on 1/7/70.

Respectfully submitted,

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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 Applicant's Response to John F. Doherty's Ninth Set of Interrogatories 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 10th day of January, 1980.

Cheryl A. Southworth

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

Cheryl A. Southworth
My Commission Expires 8/19/81

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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 Applicant's Response to John F. Doherty's Ninth Set of Interrogatories in the above-captioned proceeding were served on the following by deposit in the United States mail, postage prepaid, or by hand-delivery this 10th day of January, 1980.

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