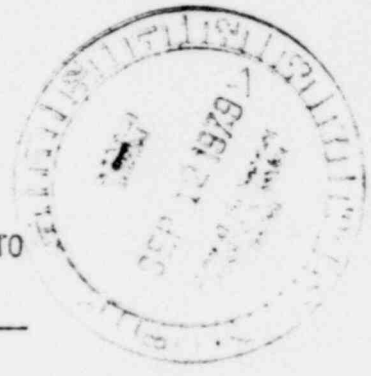
7 1 C

September 11, 1979

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
HOUSTON POWER & LIGHT CO.	)	Docket No. 50-466
	)	
(Allens Creek Nuclear Generating Station, Units 1 and 2)	)	



NRC STAFF RESPONSE TO CONTENTION 42 AND AMENDMENTS TO CONTENTIONS 12, 15, 16, 19, 21, 22, 29, 33, 38 AND 39 SUBMITTED BY JOHN F. DOHERTY

By pleadings dated August 7 and 10, 1979, Intervenor John F. Doherty submitted amendments to Contentions 12, 29, 22 and 33, 19, respectively. By pleading dated August 20, 1979, the Intervenor submitted new Contention 42 and amendments to Contentions 15, 16, 21, 39 and 38. Having been granted an extension of time to respond to the first two pleadings by Board Order of August 27, 1979, the Staff hereby submits a consolidated response to all three pleadings described above.

The Staff opposes the new contention and all the amendments to contentions submitted as failing to provide any litigable issues for this proceeding.

Contention 42

Mr. Doherty alleges a risk to health and safety from the ACNGS information system which indicates the position of valves and safety relief valves. The

basis for this allegation is NUREG-0578.[1] The Intervenor acknowledges the written commitment by the Applicant[2] to comply with the Task Force recommendation to "provide reliable, direct position indication for the valves or a reliable flow indication . . ." (Item 2.1.3, NUREG-0578, p. 7). Nevertheless, the Intervenor asserts that the Applicant must go beyond commitment to comply with the recommendation by indicating if such an information system is possible or the specific details of how the system will be designed. No basis is given for the surmise that such a system may not be possible and thus there is no basis for the contention.

Under 10 CFR 50.35(a) a construction permit may be granted if there is "reasonable assurance" that safety questions can be satisfactorily resolved. Since the Applicant has committed to provide the system recommended, no litigable issue has been raised. No specific recommendation or requirement has been proposed by the Staff at this time so that the precise design of the information system is yet to be determined. Therefore, no controversy has been raised by the Intervenor's contention. The Staff opposes admission of this contention since it raises no issue capable of litigation.

Amendment to Contention 12

Having raised issue with the Rod Pattern Control System (RPCS) of other BWR's in the original contention, Intervenor by amendment now seeks to contest the safety of the new design of the RPCS to be used at ACNGS, by an unsupported statement

1/ "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations," NUREG-0578, July, 1979.

2/ Letter from Houston Lighting and Power Co. to Harold Denton, August 9, 1979.

that the new design is inadequate. The Intervenor assumes that the new design is a simple redundancy of systems in use at other plants and asserts that the possibility of bypass of the system by operators raises a safety issue. The Intervenor is mistaken in all assertions posed as basis to challenge the ACNGS RPCS. The new design does not use neutron flux but rather rod position and limits thereon. Both systems must be operable during startup and no bypass is possible by the operator. (See ACNGS PSAR, p. 7.7-7). The redundant sensors deemed necessary by Intervenor already exist in the new design. The reference to "uranium dust" in connection with TMI-2 is completely unknown to Staff. Intervenor has added nothing to this contention by the speculations and unfounded assumptions posed in the amendment. The Staff continues to oppose the contention as lacking any factual basis.

Amendment to Contention 15

Intervenor has changed this contention by amendment, from one challenging the Lattice Physics Model to one which now challenges the Applicant's method of calculating power excursion accidents (PEA). Intervenor asserts that Applicant uses a one-dimensional time code citing page 4-11 of the SER supplement. The Staff assumes the previous contention is withdrawn, and the new one substituted.

Intervenor has misinterpreted the SER section referenced. Neither the WIGLE code nor a one-dimensional transient code is used by General Electric in the analysis of a rod drop accident. Nor is either code used in calculation of the scram reactivity curve for this accident. The analysis method used by GE for the rod drop accident is described in NEDO-10527 and Supplements 1 & 2, referenced in the SER Supp. 2, p. 15-4.

No factual basis for the assertion has been provided by the amendment and the Staff continues to oppose this contention.

Amendment to Contention 16

The original contention asserted that steam blanketing of fuel rods could occur as consequence of an ATWS. By amendment, the Intervenor contends that steam blanketing could occur due to a dislodged reactor component positioned between the fuel rods and coolant flow. The basis cited is an event at Fermi-I.

This assertion is entirely unclear and confused. The event at Fermi-I was not related to steam blanketing and further, no nexus is shown between the unique characteristics of Fermi-I which was a sodium cooled reactor and Allens Creek. The Staff continues to oppose the contention as vague and without basis.

Amendment to Contention 19

The only change made in the original contention is to assert that the collet retainer tube cracking issue is a "principal engineering and design criterion" described in 10 CFR 50.35 (after the previous Staff response stating that such an issue was not part of the construction permit criteria). The Staff continues to oppose the contention on the same basis as previously stated. The collet retainer tube is a small part of the control rod drive mechanism and a detail of design to be provided for the operating license application rather than construction permit. Under 10 CFR 50.35(a) such a detail of design need not be settled before

a construction permit is issued. See Gulf States Utilities Co. (River Bend Station, Units 1 & 2), ALAB-444, 6 NRC 760, 776-778 (1977). The proposed new design to mitigate collet retainer tube problems will be reviewed at the time of operating license application. No issue has been raised within the scope of this proceeding by this assertion and it should be dismissed.

Amendment to Contention 21

Intervenor has changed the original contention dealing with economic risk to one premised on possible harm to the environment as a basis for his assertion that generic resolution of void collapse calculations should be made prior to construction permit issuance. Intervenor assumes the resolution of void collapse calculations will require derating to such an extent that replacement power in the form of another plant will be required. Intervenor states it would be better for his environmental interests to build a coal plant or a PWR. The only basis stated for assuming that derating will be the ultimate resolution is that there has been "derating for various reasons" in other BWR's. This is insufficient to form a valid basis so that the assertion made rests on nothing more than Intervenor's unsupported assumption.

This amendment is entirely speculative and has no basis in fact. The Staff continues to oppose the admission of this contention.

Amendment to Contention 22

On the question of control rod cracking, Intervenor has changed a previous allegation of economic threat to one of health,[3/] and added an allegation that control rod cracking can prevent ability to achieve cold shutdown. The basis stated is cracked and melted rods at Three Mile Island 2.

Nothing has been added to this contention to support its litigation. There is no basis for alleging that cracked control rods require "prolonged" shutdown, and clearly the Three Mile Island reference is irrelevant. No factual basis is given for the surmise that cracked control rods can prevent cold shutdown, and clearly, melted rods are not the equivalent of cracked ones. This amendment does not support the contention and the Staff continues to oppose it.

Amendment to Contention 29

Intervenor essentially repeats the contention concerning possible blockage of the intake canal, quoting from the SER, p. 2-18, wherein the Staff indicates that the Applicant must show its design to be adequate to avoid blockage prior to issuance of the operating license. Subsections (a) and (c) of the amendment refer to the SER, p. 2-19, wherein the Staff states the Applicant must demonstrate protection of cables and piping in the event of more than 50% failure of the causeway. None of these references qualify as contentions for this proceeding since they are to be addressed prior to operating license issuance but need not

---

3/ Intervenor states that prolonged shutdown, that he alleges will occur, will harm his health by use of non-nuclear fuels in other plants.

be resolved prior to CP issuance. See 10 CFR 50.35(a); Gulf States Utilities, supra. Section (b) repeats the unsupported assertion previously made, i.e., that guidelines for selection of meteorological conditions for the design of the ultimate heat sink are inadequate. Again, no basis is given for such an assertion. Subsection (d) which states that weekly inspections are inadequate is totally without basis since Intervenor refers to waste storage inspections at Hanford. This is irrelevant to the ACNGS UHS. No particular frequency of inspection has yet been determined for the cooling pond. It is unknown why Intervenor refers to "weekly." The amendment has added nothing to the contention which would support its admission for litigation and the Staff continues to oppose it.

Amendment to Contention 33

The original contention asserting unsafe reliance on the Doppler effect because of an alleged faulty GE test has been changed now to allege a different basis for suspecting the Doppler effect. The new basis given is reference to the same NEDO document (20964) previously referenced. But this time Intervenor challenges the reliance on data from the SPERT tests, mentioned in the document.

The Intervenor has mischaracterized the statements in the NEDO document. The page 15 reference deals with moderator void coefficient, not the Doppler effect. Additionally, it is plainly stated on pages 6-7 that the mathematical model developed for the Doppler effect was compared to Hellstrand tests, primarily,

and only secondarily to SPERT data, so that there was no "reliance" on SPERT data. Intervenor's assertion that excursion testing on 8 X 8 assemblies must be done is a mere statement entirely without basis. Since the negative temperature coefficient of the Doppler effect is localized within the fuel pellets, there is no reason to believe that this effect will occur any differently in the 8 X 8 assemblies than the 7 X 7. The Staff opposes this contention as without basis, both as originally written and as amended.

Second Amendment to Contention 38

The only addition made to the first amendment, which stated that the Allens Creek design violates the requirements of GDC 19 and 34 by failure to provide cold shutdown within 24 hours, is an excerpt from the TMI-2 "Lessons Learned" NUREG-0578. This quotation is a recommendation of the TMI "Lessons Learned" task force that rulemaking be initiated to require 24-hour cold shutdown of facilities where human or procedural error cause a loss of safety function (NUREG-0578, pp. 14-15, A-60-A-64).[4/] This is unrelated to 10 CFR Part 50 Appendix A, General Design Criteria 19 or 34. Therefore, the Intervenor has not provided any basis for his assertion that the ACNGS design violates GDC 19 and/or 34. Cf. 10 CFR 50.36(c)(1).

Amendment to Contention 39

Intervenor has repeated the allegation that there is a risk of fuel rod

---

4/ The Director of Nuclear Reactor Regulation has by Memorandum of August 30, 1979, to the Commission stated that he intended to initiate rulemaking on this subject (p. 2). To the extent matters are germane they will be considered in rulemaking, and thus should not be considered in a licensing proceeding. See: Potomac Electric Power Co. (Douglas Point Nuclear Generating Station, Units 1 & 2) ALAB-218, 8 AEC 79, 85 (1974). Further as they are procedural controls (Technical Specifications) that can be implemented, they may await resolution at the operating license stage of proceedings. See 10 CFR 50.35(a).

ballooning at ACNGS but by amendment has changed the allegation that 10 CFR Part 20 limits will be exceeded to an allegation that Part 100 limits would be exceeded. Additionally, the Intervenor alleges that the Allens Creek fuel rods do not comply with 10 CFR §50, Appendix K because they are "highly similar" to fuel rods considered to have "possibly ballooned" at TMI. Also, in attempting to show a nexus between possible fuel rod ballooning at TMI-2, (a subject of Staff investigation) which is still asserted as the basis of this contention, the Intervenor describes the ACNGS fuel rods to show similarity in cladding and then states that:

> While the proposed plant ECCS varies from the PWR designs, this Intervenor contends the differences do not obviate this [loss of coolant] accident possibility.

Thus, Intervenor has not provided a more adequate basis than previously submitted to show a relation between the events which may have caused fuel rod ballooning at TMI and such an occurrence at Allens Creek, other than his own unsupported statement. This amendment does not cure the defects of the original contention since the issue raised is the "possibility" of fuel rod ballooning at TMI-2, for which no relationship to the Allens Creek design is shown other than Intervenor's speculation. The Staff continues to oppose this contention as without basis in fact.

Respectfully submitted,

Colleen P. Woodhead

Colleen P. Woodhead
Counsel for NRC Staff

Dated at Bethesda, Maryland,
this 11th day of September, 1979.

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 "NRC STAFF RESPONSE TO CONTENTION 42 AND AMENDMENTS TO CONTENTIONS 12, 15, 16, 19, 21, 22, 29, 33, 38 AND 39 SUBMITTED BY JOHN F. DOHERTY" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk by deposit in the Nuclear Regulatory Commission internal mail system, this 11th day of September, 1979:

Sheldon J. Wolfe, Esq., Chairman *
Atomic Safety and Licensing
Board Panel
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. E. Leonard Cheatum
Route 3, Box 350A
Watkinsville, Georgia 30677

Mr. Gustave A. Linenberger *
Atomic Safety and Licensing
Board Panel
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

R. Gordon Gooch, Esq.
Baker & Botts
1701 Pennsylvania Avenue, N.W.
Washington, D. C. 20006

J. Gregory Copeland, Esq.
Baker & Botts
One Shell Plaza
Houston, Texas 77002

Jack Newman, Esq.
Lowenstein, Reis, Newman & Axelrad
1025 Connecticut Avenue, N.W.
Washington, D. C. 20037

Richard Lowerre, Esq.
Asst. Attorney General for the
State of Texas
P. O. Box 12548
Capitol Station
Austin, Texas 78711

Hon. Jerry Sliva, Mayor
City of Wallis, Texas 77485

Hon. John R. Mikeska
Austin County Judge
P. O. Box 310
Bellville, Texas 77418

Atomic Safety and Licensing
Appeal Board*
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

1143 296

Atomic Safety and Licensing
Board Panel *
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Docketing and Service Section *
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Mr. John F. Doherty
4438 1/2 Leeland Avenue
Houston, Texas 77023

Mr. and Mrs. Robert S. Framson
4822 Waynesboro Drive
Houston, Texas 77035

Mr. F. H. Potthoff, III
1814 Pine Village
Houston, Texas 77080

D. Marrack
420 Mulberry Lane
Bellaire, Texas 77401

Mr. Jean-Claude De Bremaecker
2128 Addison
Houston, Texas 77030

Gregory J. Kainer
11118 Wickwood
Houston, TX 77024

Gayle De Gregori
2327 Goldsmith
Houston, Texas 77030

Mrs. W. S. Cleaves
8141 Joplin Street
Houston, Texas 77017

Barbara Karkaki
1917 Wentworth
Houston, TX 77004

Carro Hinderstein
8739 Link Terrace
Houston, Texas 77025

Texas Public Interest
Research Group, Inc.
c/o James Scott, Jr., Esq.
8302 Albacore
Houston, Texas 77074

Brenda A. McCorkle
6140 Darnell
Houston, Texas 77074

Mr. Wayne Rentfro
P.O. Box 1335
Rosenberg, Texas 77471

Rosemary N. Lemmer
11423 Oak Spring
Houston, TX 77043

Laura Lewis
1203 Bartlett #4
Houston, TX

Mrs. Karen L. Stade
P.O. Box 395
Guy, Texas 77444

Jon D. Pittman, Sr.
2311 Bamore
Rosenberg, Texas 77471

Ms. Ann Wharton
1424 Kipling
Houston, Texas 77006

Ms. Kathy Mohnke
1411 Lamonte
Houston, Texas 77018

Mr. James H. Robinson
1228 Bomar
Houston, Texas 77024

Ms. Bonny Wallace
614 Meadowlawn
LaPorte, Texas 77571

Mr. and Mrs. Bruce A. Palmiter
P.O. Box 183
302 South Missouri Street
Orchard, Texas 77464

Dr. Marlene R. Warner
6026 Beaudry
Houston, Texas 77035

Mr. Eugene E. Mueller
15602 Corsair Road
Houston, Texas 77053

Mr. William J. Schuessler
5810 Darnell
Houston, Texas 77074

D. B. Waller, Jr.
1708 Kipling
Houston, TX

Jeffery R. West
10903 Sageberry
Houston, TX 77039

Janice Blue
1708 Rosewood
Houston, TX 77004

Gabrielle Cosgriff
5203 Crystal Bay
Houston, TX 77043

Charles Andrew Perez
1014 Montrose Blvd.
Houston, TX 77019

Leotis Johnston
1407 Scenic Ridge
Houston, TX 77043

Dick Day
3603 Drummond
Houston, Texas 77025

Niami Hanson
6441 1/2 Mercer
Houston, Texas 77005

Mr. Robert C. Kuehm
1155 Curtin
Houston, Texas 77018

Ms. Dana Erichson
327 Hedwig
Houston, Texas 77024

Ms. Nancy L. Durham
Box 328
Simonton, Texas 77476

T. E. Elder
2205 Hazard
Houston, TX 77019

Helen Foley
3923 Law #16
Houston, TX 77005

Marjorie A. Gurasich
Route 1, Box 410
Wallis, TX 77485

Mrs. R. P. Erichson
327 Hedwig Road
Houston, TX 77024

Abraham Davidson
704 Hyde Park
Houston, TX 77006

Susan G. McGuire
8837 Larston
Houston, TX 77055

Margaret Bishop
11418 Oak Spring
Houston, TX 77043

Robin Griffith
1034 Sally Ann
Rosenberg, TX 77471

Ron Waters
3620 Washington Avenue
No. 362
Houston, TX 77007

Glen Van Slyke
1739 Marshall
Houston, TX 77098

J. Morgan Bishop
11418 Oak Spring
Houston, TX 77043

Mrs. Connie Wilson
11427 Oak Spring
Houston, TX 77043

Patricia L. Streilein
Route 2, Box 398-C
Richmon, TX 77469

Carolina Conn
1414 Scenic Ridge
Houston, TX 77043

John and Jeanette Beverage
13031 Harwin
Houston, TX 77072

Stephen A. Doggett, Esq.
Pollan, Nicholson & Doggett
P.O. Box 592
Rosenberg, TX 77471

J. Michael Ancarrow
4310 Bell
Houston, TX 77023

Virginia Lacy Perrenod
2704 Beatty #112
Houston, TX 77023

Jeanne Robertson
23 Nueces Street
Bay City, TX 77417

Barbara Blatt
4314 1/2 Bell Street
Houston, TX 77023

Laura Brode
5422 Olana Drive
Houston, TX 77032

Stephanie M. Brown
3510 E. Broadway #612
Pearland, TX 77518

James Chilcoat
4319 Bell Street
Houston, TX 77023

Barbara J. Ginn
4309 Bell
Houston, TX 77023

Dorothy J. Ryan
4309 Bell
Houston, TX 77023

Rachel Weinreb-Kuehm
1155 Curtin
Houston, TX 77018

Mary L. Fuller
614 Bienville Lane
Houston, TX 77015

Frances Pavlovic
111 Datonia
Bellaire, TX 77401

W. Matthew Perrenod
4070 Merrick
Houston, TX 77025

Bryan L. Baker
1118 Montrose
Houston, TX 77019

Fern Barnes
2406 Morning Glory
Pasadena, TX 77503

James R. Piepmeier
618 West Drew
Houston, TX 77006

Elinore P. Cumings
926 Horace Mann
Rosenberg, TX 77471

Mr. and Mrs. Larry W. Scott
Route 2, Box 31 H.Q.
Richmond, TX 77469

Ms. Gertrude Barnstone
1401 Harold
Houston, Texas 77006

Roy E. Loyless
P.O. Box 249
Simonton, TX 77476

Donald D. Weaver
P.O. Drawer V
Simonton, TX 77476

Dorothy F. Carrick
Box 409 Wagon Road
RFD #1
Wallis, TX 77045

Mr. Robert R. Edgar
Rt. 2 Box 31-HS
Richmond, Texas 77469

Ms. Kathryn Ottie
Rt. 2 Box 62L
Richmond, Texas 77469

Colleen P. Woodhead
Counsel for NRC Staff