

09/29/78

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

NRC PUBLIC DOCUMENT ROOM

In the Matter of

HOUSTON LIGHTING & POWER COMPANY

(Allens Creek Nuclear Generating
Station, Unit 1)

Docket No. 50-466



NRC STAFF RESPONSE TO AMENDED PETITION
FOR LEAVE TO INTERVENE OF T. PAUL ROBBINS

The NRC Staff opposes the amended petition for leave to intervene filed by T. Paul Robbins on August 25, 1978, in this proceeding. It is clear from an examination of the amended petition that Mr. Robbins has alleged only an economic interest in this proceeding. He alleges that the project will cause economic hardship to himself and the citizens of Texas by contributing to a lowering of the water table in the State. To the extent that Mr. Robbins seeks to represent the interest of the citizens of Texas, the Staff's response to his original petition explained that he cannot represent a generalized public interest as a "private attorney general"; he can only represent his own personal interest. ^{1/} To the extent Mr. Robbins alleges economic harm to himself, both the Commission and

^{1/} NRC Staff's Response to Petition to Intervene of T. Paul Robbins, July 18, 1978, p. 2, citing Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-77-11, 5 NRC 481, 484 (1977).

7810110037

the Appeal Board have recognized that purely economic interests are not sufficient to confer standing in NRC licensing cases.^{2/}

Further, the amended petition contains no facts from which a finding could be made that Mr. Robbins should be granted discretionary intervention. The paramount factor to be considered in determining whether participation as a discretionary matter should be granted is whether such participation would likely produce a valuable contribution to the decision-making process.^{3/} The issue of water use has been raised by the Texas Public Interest Research Group in a contention which the NRC Staff has recommended be admitted as an issue in controversy.^{4/} Further there is no showing that Mr. Robbins has information or expertise which is not available to the other parties. He therefore has made no showing which would support the granting of the petition as a matter of discretion.^{5/}

^{2/} Portland General Electric Company (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613-614 (1976); Tennessee Valley Authority (Watts Bar Nuclear Plant, Units 1 and 2), ALAB-413, 5 NRC 1418 (June 20, 1978). See also, Chairman Rosenthal's opinion in Long Island Lighting Co. (Jamesport Nuclear Power Station, Units 1 and 2), ALAB-292, 2 NRC 631, 640 (1975).

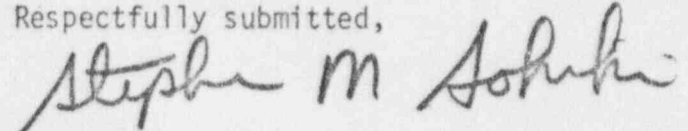
^{3/} Portland General Electric Company, CLI-76-27, supra, 4 NRC at 615.

^{4/} See, "Stipulation Between NRC Staff and Texas PIRG" dated September 26, 1978, Contention 1(d).

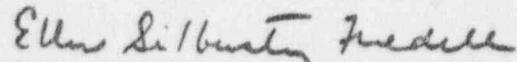
^{5/} Mr. Robbins would be free to make a limited appearance at the upcoming hearing for the purpose of making a written or oral statement, as provided for by 10 CFR §2.715(a).

Accordingly, the NRC Staff believes that Mr. Robbins petition should be denied.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Stephen M. Sohinki". The signature is fluid and cursive, with the first name "Stephen" and middle initial "M" being more prominent.

Stephen M. Sohinki
Counsel for NRC Staff

A handwritten signature in dark ink, appearing to read "Ellen Silberstein Friedell". The signature is cursive and somewhat stylized, with the last name "Friedell" being clearly legible.

Ellen Silberstein Friedell
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 29th day of September, 1978

09/29/78

NRC PUBLIC COMMENT ROOM
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

HOUSTON LIGHTING & POWER COMPANY

(Allens Creek Nuclear Generating
Station, Unit 1)

Docket No. 50-466



NRC STAFF'S RESPONSE TO CONTENTIONS OF TEXAS PIRG

On September 26, 1978, the NRC Staff and the Texas Public Interest Research Group (PIRG) reached agreement with regard to most of the issues raised by PIRG in the captioned proceeding. That agreement is embodied in the "Stipulation Between NRC Staff and Texas PIRG" of the same date. Four proffered contentions remain on which agreement could not be reached. These contentions are addressed below. The numbering used in this response corresponds to that used in the above-referenced stipulation.

Contention 8

Applicant has not demonstrated a design that will provide an adequate margin of safety, in the event of Anticipated Transients Without Scram. In that Applicant has no nuclear reactors operating at the present time, and therefore will not be drawing upon a pool of operators experienced in responding to transients, and since transients occur most frequently in the early stages of power plant life, ACNGS in the first few years of operation in particular will threaten release of radioactivity in excess of 10 CFR Part 100 guidelines. Therefore, Petitioner asserts that the license should be conditioned upon the incorporation of an automatic redundant scram in the ACNGS design. New evidence, in the form of an Electric Power Research Institute study and NUREG-0460, indicates that

new reactor designs often have higher frequency of transients than older designs, ACNGS will be such a new design, BWR/6/. (Additional note: studies by Peter Bourne and others confirm that experience mitigates adverse responses to stress conditions.)

Response

This contention should be excluded because it is not based upon new information. Specifically, the allegation that the Applicant lacked experienced operators could have been made at the inception of this proceeding and, in any event, well prior to December, 1975. In addition, review of a post-1975 study is hardly necessary in order to recognize the obvious fact that new designs experience more problems than older, more established ones. The Staff, therefore, believes that this contention should be excluded.

Contention 9

Petitioner contends that the Staff has inaccurately concluded in its NEPA evaluations that a nuclear power alternative is less costly, both economically and environmentally, than coal-fired generation. This contention is based upon the following factors:

- a. The operating experience for nuclear plants of this size indicates they will produce only half the power of their planned capacity, while coal-fired plants will produce at a 70 percent capacity. Furthermore, a comparison of two 375 MWe coal-fired units should be analyzed relative to the ACNGS, because smaller-sized units will be more reliable and thus require smaller reserve margins. This alternative would thus utilize less resources and be less costly. Studies by Kahn (1977) and Komanoff (Nuclear Power Performance and Update, 1976, 1977) provide evidence for this factor.

- b. Capital costs associated with coal-fired plants planned by other Texas Utilities are 40 percent less than those projected by the Applicant and Staff, and the prospects of utilizing Texas-mined lignite would substantially reduce the operating costs of the coal fire alternative. Both of these aspects would substantially alter the weighing process in Appendix S.D of the DS-FES.
- c. Research by Kahn (1977) indicates that peak-load central power units, such as small coal-fired units, will be more likely to encourage the use of supplemental solar heating and cooling units in the power grid. Since such solar units would result in environmental benefits and long-term economic benefits in the Applicant's service area, the base-load nuclear generating station represents an environmental liability relative to peak-load station alternatives.

Petitioner, therefore, asks the Board to find that coal-fired generation of power would be a preferable alternative to ACNGS.

Response

This contention is based entirely upon the alleged economic superiority of coal over nuclear power. The Appeal Board's decision in the Midland^{1/} proceeding makes it clear that this contention should be excluded as the Appeal Board stated:

The passage of the National Environmental Policy Act increased our concern with the economics of nuclear power plants, but only in a limited way. That Act requires us to consider whether there are environmentally preferable alternatives to the proposal before us. If there are, we must take the steps we can to see that they are implemented if that can be accomplished at a reasonable cost, i.e., one not out of proportion to the environmental advantages to be gained. But if there are no preferable environmental alternatives, such cost-benefit balancing does not take place. Manifestly, nothing in NEPA calls upon us to sift through environmentally inferior alternatives to find a cheaper (but dirtier) way of handling the matter at hand. ^{2/}

^{1/} Consumers Power Company (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155 (1978).

^{2/} Id. at 162.

Since this contention focuses entirely upon economic cost of coal v. nuclear, it should not be admitted as a matter in controversy.

Contention 10

Applicant has not adequately demonstrated compliance with 10 CFR Part 50, App. A, criterion 31, with regard to intergranular stress, corrosion and cracking. Excessive oxygen levels, superposed loads, and residual stresses may result in ultimate failure of piping, despite altered metal content for the ACNGS design. The NRC investigation of stress, corrosion, and cracking problems at similar BWR units was released in December 1975.

Response

This contention should be excluded because it is not based upon new information. The report to which Petitioner makes reference is NUREG 75/067, which was issued on December 5, 1975. More importantly however, the bibliography of that document contains numerous references which discuss the problem raised by this contention. All of the listed references were available well prior to December, 1975. Therefore, the contention could have been raised prior to the deferral of the Allens Creek application.

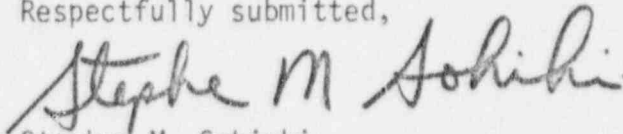
Contention 11

Applicant has not adequately assessed the effects of flow-induced vibration on jet pumps, spargers, fuel pins, core instrumentation, and fuel rods. Feedwater sparger failures occurred at five BWR units from 1975 to 1976, all due apparently to flow-induced vibration. Petitioner asks that a license be denied until an adequate assessment is presented by the Applicant.

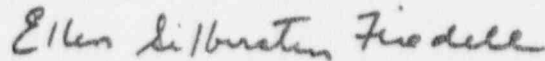
Response

The flow-induced vibration phenomenon has been recognized and reviewed for several years by the Staff. Indeed, by Petitioner's own admission, several of the reported incidents with feedwater spargers occurred during 1975 (at a time when this concern could have been raised in the Allens Creek proceeding). Further, the widely available journal Nuclear Safety has published articles dealing with vibration incidents at various reactors periodically over the past several years. As an example, the January/February 1974 issue examined incidents involving flow-channel problems which had been reported in September and October, 1973. Therefore, the contention is not based upon new information, and should be excluded.

Respectfully submitted,



Stephen M. Sohinki
Counsel for NRC Staff



Ellen Silberstein Friedell
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 29th day of September, 1978

NRC PUBLIC DOCUMENT ROOM

09/29/78

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

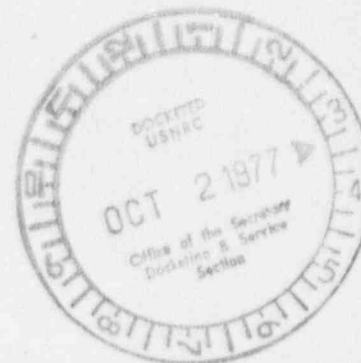
BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

HOUSTON LIGHTING & POWER COMPANY

(Allens Creek Nuclear Generating
Station, Unit 1)

NRC PUBLIC DOCUMENT ROOM
Docket No. 50-466



NRC STAFF RESPONSE TO CONTENTIONS OF ARMADILLO
COALITION AND JOHN H. DOHERTY

On September 27, 1978, the NRC Staff and the Armadillo Coalition of Texas, Houston Chapter and John F. Doherty reached agreement with regard to most of the issues raised by Petitioners in the captioned proceeding. That agreement is embodied in the "Stipulation Between NRC Staff and John F. Doherty, Individually, and on Behalf of the Armadillo Coalition of Texas, Houston Chapter" of the same date. Four proffered contentions are addressed below. The numbering used in this response corresponds to that used in the above-referenced stipulation.

Contentions 1 and 2

1. The proposed Allens Creek Nuclear Generating Station (ACNGS) will not keep liquid and gas radioactive effluents as low as reasonably achievable as required by the code of Federal Regulations. Technology exists which will reduce the amount of such substances which will be released by the plant. Changes in the gas effluent stack and liquid radwaste system indicate that although Staff has considered this problem it is unfinished. Compared to other Boiling Water Reactors (BWR's) liquid and gaseous effluent limits proposed for ACNGS represent a dangerous trend toward tolerance of radioactive effluents when recent genetic, medical and radiological literature pointing to the possibility that radioactive

doses above background doses (that is very low doses) is more hazardous to the health of persons such as petitioners than was thought at the time applicable part of Code and Federal Regulations were written, is noted.

2. Based on new information by the Final Environmental Impact Statements (FEIS) of other BWRs, radioactive effluents as listed in Tables 5-10 and 5-16 of the Final Supplement to the FEIS of ACNGS will not be as low as reasonably achievable as required by the Code of Federal Regulations.
 - a. Petitioners contend that the Commission has the power to require Applicant to limit the release of effluents to an amount lower than that proposed. Petitioner urges the Commission to take note of the rapidly growing population east of the reactor site and less than 35 miles from the said site and impose stricter limits, by:
 - (1) requiring the use of additional radwaste equipment and hold-up tanks to reduce emissions, or
 - (2) permitting only pressurized water reactor (PWR) technology.
 - b. There are medical findings since 1975 that show the risk of cancer (particularly to infants, children, elderly, asthmatics, and exuma victims) to be greater than was thought when the plant was originally considered by the Commission.

Response

These contentions are clearly challenged to both 10 CFR Parts 20 and 50, which establish dose limits for nuclear power facilities, because they imply that the regulations should be changed as a result of new literature regarding effects of low level radiation. Since Petitioner has demonstrated no special circumstances pursuant to 10 CFR §2.758 which would justify such a challenge to the regulations, the contentions should be excluded.

Contention 5

In the event of blowdown, loss of coolant, reactivity initiated or other accident, the location of the Control Rod Drive Mechanism Hydraulic Unit as planned in ACNGS, as well as the Traversing in Core Probe makes these two systems vulnerable to suppression pool uplift. There are no Mark-III containment systems in operation today, and no full scale tests have been done to guard against this possibility. Petitioners contend plant is endangered in the event such accidents destroy these systems when they are needed.

Response

This contention should be excluded because it is not based upon new information. Specifically, the location of the Hydraulic Control Unit and Transversing In-Core Probe are the same as they were prior to the deferral of the application. Therefore, the alleged vulnerability to suppression pool uplift could easily have been raised at a much earlier time, certainly prior to December 1975. Likewise, no reason is provided by Petitioner with regard to why the alleged need for full scale tests of the Mark III design could not have been raised prior to December, 1975.

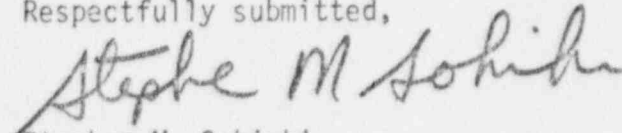
Contention 7

The design of obtaining Low Pressure Coolant Injection (LPCI) core spray water from the suppression pool following exhaustion of the condensate storage tank during Loss of Coolant Accident (LOCA), Reactivity Insertion Accident (RIA), or Transient Without Scram (TWS) is an unnecessarily high risk to Petitioner's safety and environment interests because suppression pool water is colder than reactor coolant; hence when sprayed in the core it will increase core reactivity causing high temperature and increased possibility or actuality of fuel melt and formation of a critical mass.

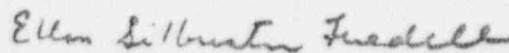
Response

The Petitioner has not, and cannot demonstrate that this contention is based upon new information. The fundamental features of the BWR/6 design have not changed since this application was first docketed. Hence, the alleged problem involving the temperature of the suppression pool water vis a vis the reactor coolant could have been raised prior to December, 1975. Therefore, the contention should be excluded.

Respectfully submitted,



Stephen M. Sohinki
Counsel for NRC Staff



Ellen Silberstein Friedell
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 29th day of September, 1978

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

HOUSTON LIGHTING & POWER COMPANY

(Allens Creek Nuclear Generating
Station, Unit 1)

Docket No. 50-466



CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF RESPONSE TO AMENDED PETITION FOR LEAVE TO INTERVENE OF T. PAUL ROBBINS", "NRC STAFF RESPONSE TO CONTENTIONS OF ARMADILLO COALITION AND JOHN H. DOHERTY", and "NRC STAFF'S RESPONSE TO CONTENTIONS OF TEXAS PIRG" 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, through deposit in the Nuclear Regulatory Commission's internal mail system, this 29th day of September, 1978:

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. Glenn O. Bright*
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

Robert Lowenstein, 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
County Judge, Austin County
P. O. Box 310
Bellville, Texas 77418

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

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

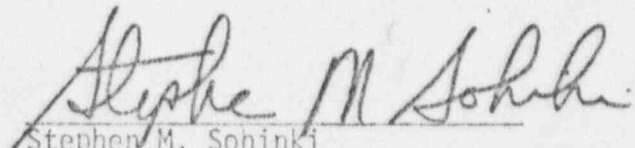
Mr. Wayne Rentfro
P.O. Box 1335
Rosenberg, Texas 77471

Mr. John F. Doherty
Armadillo Coalition of Texas,
Houston Chapter
4438 1/2 Leeland Avenue
Houston, Texas 77023

T. Paul Robbins
600 W. 28th #102
Austin, Texas 78705

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

James Scott, Jr., Esq.
Texas Public Interest
Research Group, Inc.
Box 237 UC
University of Houston
Houston, Texas 77004


Stephen M. Sohinki
Counsel for NRC Staff