

SERVED SEP 18 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)

FRANCES PAVLOVIC'S AMENDED PETITION TO INTERVENE

By letter of July 18, 1979, I intended to be considered as a full intervenor in the licensing of construction of the above captioned facility by APPLICANT. The following paragraphs represent my contentions regarding the hazards to health posed by locating the plant at the proposed site.

1. CONTENTION REGARDING OVERLAPPING ZONES

A. The fifty-mile zone of ACNGS would overlap that of South Texas Nuclear Project, exposing populations, land and air in the overlap zone to double dosages of radiation. Since this fact was not considered when calculating normal background radiation, I contend that the effects on the "maximum" individual and his environment are inaccurate and misleading.

B. Although health effects are estimated for the entire country assuming a total nuclear economy, areas which are in nuclear plant overlap zones are not considered. For example, (S.D. 15 FES August 1978) states,

"It is believed that genetically related diseases....certain anemias, and congenital abnormalities....and abnormalities in the descendents of workers and the general public from both normal operations and accidents would be perhaps twice the number of excess deaths due to cancer from total-body irradiation;..."

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Population of towns in the overlap zone. (Texas Almanac 1978-1979)

Carado 1,749  
Midfield 70  
Markham 603  
Bay City 13,587  
Sweeny 3,025  
Van Vleet 1,051  
Old Ocean 915  
W. Columbia 3,330  
E. Columbia 95

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Magnet 42  
Lane City 111  
Pierce 49  
Hillje 51  
Louise 310  
Lanevang 61  
Nada 165  
Egypt 26  
Glen Flora 210  
Garwood 975  
Rock Island 160  
Pledger 159  
Boling 720  
Wharton 7,744  
Iago 56  
Newgulf 963  
Damon 375  
Needville 1,662  
Kendleton 641  
Sandy Point 30  
Rosharon 435  
Dewalt 40  
Richmond 8,452  
Rosenberg 14,995  
Sugar Land 7,306  
Fulshear 200  
Wallis 1,108  
Eagle Lake 3,587  
Lissie 70  
E. Bernard 1,500

, Wallis

OVERLAP ZONE

Bay City

→ See insertion  
page 11.

I contend that statistics should be gathered from studies on the incidence of the above health effects in overlap zones in other sections of the country before a true estimate of the detrimental health effects of ACAs can be determined.

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## 2. CONTENTION REGARDING NEAREST CENTER OF POPULATION

Rosenberg, population 14,995 (Texas Almanac 1973-1979) is considered the nearest center of population by NRC. It is 15 miles from the site. However, on Interstate 10 approximately 10 miles from the site, the average daily vehicle count is 16,230. Since each vehicle would average more than one passenger, the average daily number of persons on I-10 could be well over 20,000. Sealy's population could be added to this figure to give a more accurate count of the nearest center of population, since Sealy is located on I-10 approximately 10 miles from the site and has a population of 3,211 (Texas Almanac 1973-1979). Other major roads within ten miles of the site have average counts as follows: US 90, 2,320; Farm to Market Road 1458 1,690; State Highway 60 1,570, and State Highway 36 2,930. The area around Sealy and all along I-10 is quite populous and the population of Houston is spreading out to that area. For this reason, I contend that the proposed site is too close to a populated area.

## 3. CONTENTION BASED ON MOST APPROPRIATE USE OF THE SITE

Since the land on which it is proposed that ACNGS be built is presently arable and since the growing population of the area needs produce and other food items that could be grown on the site and shipped at low energy cost to distribution centers in the area, I contend it would be more healthful for the population of the area if the site remained available for agricultural use.

## 4. CONTENTION THAT ADEQUATE CONSIDERATION HAS NOT BEEN GIVEN TO CONSERVATION AS ALTERNATIVE

A. Applicant's projections of future need are based on present peak loads

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which have been encouraged by Applicant's advertising and rate structure.

"Houston....uses more energy per capita than any other city in the world, as the city's private utility, Houston Lighting & Power, proudly announces in its advertisements."

--"The future of an illusion" by

Peter Gunter in TEXAS OBSERVER, April 13, 1979

I contend that Applicant's projected estimates of need are inflated and should be revised after it has made a bona fide effort to reduce peaks of consumption.

B. I contend that Applicant should not be licensed to construct another nuclear plant until it has made a bona fide effort to encourage conservation of electricity over a five-year period.

"If the United States were to make a serious commitment to conservation, it might well consume 30 to 40 percent less energy than it now does."

C. Examples of Conservation measures that should be sponsored by Applicant.

1. Applicant's rate structure should be changed so that those who use more pay more. Since 51% of Applicant's sales are to industrial customers, they should pay 51% of the cost; residential 23%; commercial 20%.

2. Applicant should encourage the use of "house doctors" as advocated recently by a United States Senator. These "doctors" would visit houses, diagnose their energy problems, prescribe the remedies needed. Upon completion of the prescribed "course of treatment" utility bills would be compared with those of the preceding year to determine how much energy had been saved. If consumption of energy was reduced significantly, the "doctor" could keep his fee. If not, he would have to refund it to the homeowner.

Residential customers could be urged to use washers, dryers, dishwashers, and disposals during off-peak hours. Applicant's monthly mail-out to customers could list the off-peak hours.

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Applicants advertising should urge customers to follow recommendations of the federal government with regard to thermostat settings.

Applicant could suggest the use of light meters in office buildings with glass walls.

Applicant could enter into co-generating agreements with additional industrial customers.

Applicant could consult with commercial buildings owners to phase out super-cooling and reheaters which tend to make Houston's business environment colder indoors than out even in the winter months.

5. CONTENTION REGARDING OFF-SITE MONITORING REQUIREMENT

I contend that Applicant should be required to install an off-site radiation monitoring system that would also take into account weather conditions, with continuous computer processing. Such a system would enable a reliable estimate to be made of the accumulated radiological dosage to the off-site population in the event of an abnormal release of radioactivity and for long-term health projections.

References: "Monitor"--NUCLEAR ENGINEERING, August, 1979 and "The Way to Save Nuclear Power" by R. A. Brightsen in FORTUNE, Sept. 10, 1979.

The above references contain many valuable suggestions regarding operation, communications, and public relations, and I hope they will be adopted before the plant is licensed to operate. I mention them at this time because I understand that operations licenses are often pro forma after a plant has been built.

6. CONTENTIONS REGARDING RAIL TRANSPORT OF NUCLEAR WASTE

I contend that railroads to be used for transport of nuclear waste be thoroughly evaluated and physically improved beforehand. Since

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7 to 10 rail shipments of spent fuel consisting of 42 tons of spent fuel and 20 tons of cladding will be traveling from ACNCS over Texas railroads, they will be subject to railroad crossing accidents, derailments, and other problems common to Texas railroads. According to ER 5.3.4.2., and ER 5.3.4.2.2, mode and route of transport of other solid waste will be similar to that of the spent fuel; the location of the reprocessing plant and the route traversed by the spent fuel to the reprocessing plant has not yet been chosen.

7. CONTENTION REGARDING CUMULATIVE EFFECTS OF ADDITIONAL WASTE FROM OTHER NUCLEAR PLANTS ALONG THE RAILROUTE ROUTES TO STORAGE OR REPROCESSING

In addition to the proposed shipments of nuclear waste from ACNCS that might conceivably pass through populated areas, I contend that NRC requirements regarding radiological exposure levels could be exceeded if the same rail lines are used to ship waste from other nuclear plants. I therefore contend that licensing should be delayed until rail routes are determined and the cumulative radiological effects calculated.

8. CONTENTION REGARDING PROTECTION OF PUBLIC AT RAILROAD CROSSINGS

Persons in Texas have been killed by trains at railroad crossings throughout the state, and the crossings are often left in disrepair after an accident. Texas Observer article, "Crossing Over" by Jeanette Carrett, <sup>1976</sup> April 27, 1979, quotes a Department of Transportation survey which "points out that only 3,424 of the crossings have any sort of 'active' warning system in place--either flashing lights, bells, or gates that block crossings when a train is approaching. Most of them are marked only by the familiar black and white crossbuck sign to notify motorists that there's a crossing ahead. DOT found that 1,113 Texas crossings have no markings of any kind."

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I contend that all crossings used by trains hauling nuclear waste should be inspected prior to each shipment and adequate protection be provided to the motoring public.

9. CONTENTIONS REGARDING USE OF ALTERNATIVE SOURCES OF ENERGY

Although various forms of alternative energy sources were described and abandoned in the staff reports, I contend they were considering each individual alternative source independently and not as part of a multi-source system.

I further contend that a decentralized system utilizing alternative sources in conjunction with the existing system would be less wasteful of energy, especially electricity; use less non-renewable resources; be more economical to build, maintain and operate; and be safer to workers and populations now without posing any health threats to future generations.

Since Applicant serves 70 or more municipalities, it has ample opportunities to supplement its present system with one or more alternative sources in each locality.

Doctor Wayne Willey's financial analysis of Pacific Gas & Electric Co., (cited by the Environmental Defense Fund in its August 1979 fund drive brochure) found that the company "could cut 90% of its planned new nuclear and coal plants by shifting investments to presently available alternative energy sources--and meet all of the projected energy needs at lower cost to the company and the public.'

10. CONTENTION REGARDING DELAY OF LICENSING TIL AFTER TMI COMMISSION FINAL REPORT

I contend that ACNGS construction should not be licensed until after the Three Mile Island Commission has made its final report and recommendations. Meanwhile, Applicant may gain valuable experience in operating the TSNP now under construction at a site less populous than the proposed ACNGS since much of its 50-mile zone includes coastal waters.

I listened to the TMI Commission hearings and was impressed by the following facts: The control room's displayed information went around a corner so that it was impossible for the operator to get all pertinent information from one viewpoint. The computer was outdated. The operators were overconfident and incapable of making split-second decisions based on an education in nuclear engineering at the level required by the situation.

CONTENTION REGARDING NUCLEAR WASTE STORAGE

11. The disposal of radioactive waste continue to be a problem throughout the country. I contend that until adequate provisions can be made for the long-term safe containment or neutralization of such waste, both of fuel and of cladding or liquid nuclear waste, licensing of ACNGS at the proposed site <sup>must</sup> be postponed.

INSERT

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S 5.44 Radiological impact on man

Page 5.5-31 "...the actual radiological impact of plant operation may result in doses close to the dose design objectives. Even if this situation exists the individual doses will still be very small when compared to natural background doses (~92 milirem/year) or of the dose limits specified in 10 CFR 20. As a result, the staff concluded that there will be no measurable radiological impact on man from routine operation of the ACNGS."

I contend this statement is misleading since it does not consider the amount of additional radiological impact to which those in the overlapping zones will be subjected.

*Respectfully submitted,*  
*Frances Pavlovic*  
Frances Pavlovic



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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Amendment to Frances Pavlovic's Petition to Intervene in the above-captioned proceeding were served on the following by deposit in the United States mail, postage prepaid, this 14th day of September, 1979.

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

Secretary of the Commission (20 copies)  
Attention Docketing & Service Section  
Nuclear Regulatory Commission  
Washington, D.C. 20555

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

Steve Sohinki, Esq.  
Staff Counsel  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

John F. Doherty  
4438 1/2 Leeland  
Houston, TX 77023

1146 009

Carro Hinderstein  
8739 Link Terrace  
Houston, TX 77025

Wayne E. Rentfro  
P. O. Box 1335  
Rosenberg, TX 77471

James M. Scott, Jr.  
8302 Albacore  
Houston, TX 77074

Brenda McCorkle  
6140 Darnell  
Houston, TX 77074

*Frances Pavlovic*

Frances Pavlovic  
111 Datonia  
Bellaire, Texas 77401

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