UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	§	
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HOUSTON LIGHTING & POWER COMPANY	§	Docket No. 50-466
	§	
(Allens Creek Nuclear Generating Station, Unit 1)	§	
	§	

SUPPLEMENT TO ORAL DEFENSE OF CONTENTIONS
by Katharyn Hooker

The Safety and Licensing Board on November 18, at the prehearing conference, granted me the right to supplement in writing my oral defense of contentions, on or before November 22. This right was also given to several other petitioners. We had submitted timely petitions more than two weeks before the prehearing; but we—unlike other petitioners—had no chance to see the staff's comments before having to respond to them.

Although I understood I was to have staff's written comments at least by this time (November 21), I do not. On the second day of the prehearing, Mr. Stephen Sohinki, staff counsel, told me that they would not be ready before November 21 or 22. Thus there is no chance of my seeing them in writing before I must submit my written answer; I must rely on my memory of Mr. Sohinki's remarks. (I understand that the written form he will send me will be simply a summary of his original comments.) I hope the Board will bear this in mind in

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evaluating the adequacy of my defense of contentions.

This written response will attempt to clarify as well as supplement my original answers; the written and oral statements should be considered together in evaluating the adequacy of contentions. I have followed Mr. Sohinki's statement that we may address his remarks "in any way we (petitioners) choose" in the written supplement.

As with the oral response, I beg the Board to be lenient in judging the adequacy of my written defense of contentions. At the prehearing (November 18), Mr. Sohinki remarked (citing a Commission rule) that persons not familiar with regulatory proceedings should not be held to the same standards as those who are familiar with procedure. I also cite 10 C.F.R. Appendix A, Section V.b.6: "Boards have considerable discretion in the manner in which they accommodate their conduct of the hearing to local public interest and the desires of local citizens to be heard."

In raising the following issues, I represent not only myself— a person who lives and works some 30 miles from the proposed plant site— but also two minor children, in the same zone of concern.

CONTENTION I. This contention raises the issue of low-level radiation from the proposed plant, and whether HL&P can prove that so-called normal radiation from the plant would not cause cancer and genetic defects in petitioner and her children. The burden of proof on safety issues as well as other issues of substance rests with the applicant, not the petitioner (10 C.F.R. 2.732; 10 C.F.R. Section V.c; passim.). In raising this contention, I am aware that the NRC has radioactive

emissions criteria. I do not intend in this document to challenge the adequacy of those criteria. Rather, I beg the Board to waive the criteria for "normal" gaseous radioactive effluents set forth in 10 C.F.R. Parts 20 and 50 (Appendix I). Waiver is requested on this sole issue, in this proceeding only, through the application of 10 C.F.R.2.758. Pursuant to that paragraph , a rule or regulation of the Nuclear Regulatory Commission may be waived through a showing of "special circumstances with respect to the subject matter of the particular proceeding. . . such that application of the rule or regulation would not serve the purposes for which the rule was adopted." Although I do not know with certainty what the emissions rules' original purposes were, I assume they related to attempts to regulate radioactive emissions standards so as to ensure public safety. Indeed, any other purpose at odds with public safety would, on its face, be contrary to the Commission's legal mandate to protect public health and safety. Therefore, my request for waiver of the standard emissions criteria of 10 C.F.R. is based on the special circumstances surrounding this particular proposed site— circumstances that would render application of the criteria a public health hazard, thereby nullifying the original purpose (public health and safety) of the criteria. (Please see the Affidavit on Proposed Waiver of Criteria for Gaseous Radioactive Effluents, [illegible]) The special circumstances I cite are the noncompliance of Houston— the major metropolitan area within the Commission's "zone of concern"— with Federal air pollution criteria, coupled with consideration of new information on the dangerous synergistic effects on humans of air pollutants and gaseous radioactive emissions. The [illegible] Affidavit states this issue with particularity.

I beg the Board to consider these special circumstances as follows: 1. As meriting, by themselves, waiver of the gaseous radioactive emissions standards; and 2., as meriting waiver of the standards when weighed in conjunction with new evidence that low-level radiation does more damage to humans than was previously supposed. (The new evidence on low-level radiation effects is cited with particularity in the [redacted] Affidavit.)

Should the waiver be granted, I would argue, under Contention I, that HL&P has not met the "burden of proof" required of applicants under 10 C.F.R. (cited supra) regarding protection of the public from cancer, genetic damage and death from low-level radioactive gaseous effluents, and that the proposed license should therefore be denied. These arguments would be based on new information and evidence (see below*). With regard to new evidence, I contend that it must not be excluded from consideration because the general topic it relates to has been studied for many years; this is as much as to say that all experiments after the first were useless. This assertion is absurd. Nor must a topic be excluded from consideration in this proceeding because it might have been considered in the original proceedings, suspended in 1975. Nothing in the Corrected Notice of Intervention Procedures (43 F.R. 40328) indicates that this is a requirement. The notice states only that new information and changes in the plant proposal be addressed in petitions to intervene.

This unsubstantiated assertion by both Mr. Sohinki and applicant's

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*Some of the sources to be used: Karl Morgan, "Cancer and Low Level Ionizing Radiation," The Bulletin (medical publication), September 1978, p. 30. "Cancer Cases Spark Concern About Radiation; Scientists Debate 'Safe' Limits for U.S. Workers," Wall Street Journal, July 11, 1978.

lawyers is based on a misapplication of the doctrine of laches, in effect to hamper Houstonians in the exercise of their legitimate rights in those proceedings. Mr. Sohinki states ("NRC Staff Response to Tex PIRG's motion for Modification," etc., November 16, 1978: "That doctrine (laches) has always prevented anyone who could have exercised his rights in a timely manner and didn't from seeking to litigate those matters at a much later time." I would like to bring to Mr. Sohinki's attention the reality of the lives of petitioners such as myself, Ann Wharton, and other petitioners of our acquaintance. We do not read the Federal Register. We never will. Publication of notice in the Federal Register is ineffective in notifying people of nuclear power plant hearings. There was insufficient play in local newspapers to adequately notify people; I am basing this assertion on the fact that Ann Wharton and I and others of our acquaintance, who all read newspapers daily, learned of the project only through the phone call of a friend. A whole lot of people didn't know about the original hearing either— the very hearing that is the underpinning of Mr. Sohinki's effort to exclude issues from this one. Only the Texas Attorney General intervened. Probably someone phoned him.

Also with respect to new evidence, such evidence may be cited touching issues considered in the partial initial decision, pursuant to 43 F.R. 40328 (Corrected Notice of Intervention Procedures). The Notice states: "The Appeal Board's memorandum and order of December 9, 1975, ALAB-302, 2NRC 853, in affirming the Licensing Board in its partial initial decision, stated that those findings by the Licensing Board in its partial initial decision are subject to later revision should further developments or

new information warrant."

Should waiver of the NRC's radioactive gaseous emissions criteria be denied, I would argue that it is doubtful that HL&P can meet the burden of proof required (10 C.F.R. supra) in meeting those criteria. Indeed, I would contend that it is highly unlikely that the company can meet the criteria, because of new evidence (unavailable prior to 1976) of increased, accelerated and unexpected growth in population density in the site area southwest of Houston. Lack of time prevents me from detailing these arguments here, but I shall try to meet the Commission's requirement of "reasonable specificity" by citing some of the studies I would use and the arguments I would draw from them, related to the new plant proposal. Growth Options, published by the Rice Center for Community Design in May 1978 (under the direction of Charles R. Sevino) is an intensive study of growth patterns in Houston and its environs. Among its findings: the highest rate of population growth in the region studied was southwest of Houston, in the area of the proposed plant; population increases in the region as a whole are accelerating; the rate of increase of vehicular traffic in the region as a whole is accelerating. I would show with charts, at the full hearing, the gross differences in population projections in the Rice Study and those used originally in approving the site for the proposed new plant. A showing of sufficient population density would alter HL&P's ability to meet the man-rem requirements of 10CFR for gaseous radioactive emissions (citation supra) on its face. Accelerated growth in population density will be stimulated by roads-- many of them planned since the original site approval-- to be built in the site area. The planning dates and proposed location of these roads, some of them under construction now, are given in the Twenty Year Program published by the

State Department of Highways, 1978, which I would cite in detail at the full hearings. Assuming a showing that HL&P is unable to meet the Commission's criteria for radioactive gaseous emissions, I would argue that the requested license must be denied.

CONTENTION 2. This contention raises the issue of problems in assuring the integrity of the applicant's proposed new Emergency Core Cooling System. Assuming the burden of proof to be on the applicant (10 C.F.R. citation supra), I ask whether HL&P can prove that the ECCS in the proposed new plant is virtually failure-proof. Because of the unimaginably terrible consequences of a core melt— the unavoidable outcome of failure of the ECCS — no expert in power plant operations has publicly stated that anything less than near-perfection is required of the ECCS, The proposed site's proximity to Houston, one of the five fastest-growing and most densely populated cities in the United States, renders this issue of crucial importance. I therefore beg the Board to admit this issue for full consideration in the hearing, under the Board's mandate to consider the health and safety of the public (10 C.F.R.2.104.b.1.iv) and pursuant to its broad discretionary powers in the conduct of hearings (10 C.F.R. Appendix A, Section V.b.6).

Under this contention, my major argument will be that HL&P has not complied with NRC criteria with respect to proven safety and quality assurances of a major component. For example, the Commission's citerion 10 C.F.R.50.45.a.1 is not adhered to. That regulation states: "ECCS cooling performance shall be calculated in accordance with an acceptable evaluation model, and shall be calculated for a number of pos-

tulated loss-of-coolant accidents of different sizes, locations, and other properties sufficient to provide assurance that the entire spectrum of loss-of-coolant accidents is covered." (Emphasis added.) Yet HL&P, seeking to demonstrate its qualifications for operating a nuclear power plant through the production of endless reams of material at ratepayers' expense, gives this thoughtful answer to the issue of core melt (included under the NRC's "class 9" accident description): "Not considered." (Final Supplement to the Final Environmental Statement, S.7-1.)

The implications of HL&P's response of "Not considered" to postulated accidents that the NRC rates "class 9" (most serious) become fully apparent when one considers the concern with which Congress viewed such possibilities. It passed the Price-Anderson Act to insure nuclear power plant operators against liability for property damage, loss of life and injury in the event of a major power plant accident, to a maximum of hundreds of millions of dollars. The Act was passed because private insurance companies, considering the risks of such accidents too great, refused to provide insurance against them. The NRC has incorporated the Price-Anderson Act into its regulations (10 C.F.R. Part 40).

Nor does the mere volume of data provided by HL&P provide assurance of compliance with the NRC's regulation calling for testing of components. Many of the core cooling system components appear to be tested by the prime contractor for those components-- General Electric. (See for

example the Preliminary Safety Analysis Report, 1.5.1.2.5.) Testing of safety components by the prime contractor for those components is prima facie a gross conflict of interest casting doubt both on the validity of test results themselves and the qualifications of HL&P to operate a nuclear power plant. HL&P's delegation of tests involving pressure-suppression containments to the manufacturer, GE (PSAR 1.5.1.2.5) casts the gravest doubt on the integrity of the system when considered in conjunction with controversy within the AEC as to its safety. (See the memo of September 20, 1972, from Dr. Stephen Hanauer, a senior member of the AEC regulatory staff, to other staff members. He stated his belief that the disadvantages of pressure-suppression containments over other containments were "preponderant" and recommended discouraging their use. Joseph Hendrie, another staff member, wrote in response that to ban such containments "could well be the end of nuclear power" and "would create more turmoil than I can stand thinking about." The Union of Concerned Scientists' press release of 9/18/78.) I might add that although this particular controversy originated well before 1975, pressure-suppression containment problems have still not been satisfactorily resolved. New evidence in this regard has been published in the NRC's Annual Report 1977 pp. 19-20 citing changes made and tests to be done on GE pressure-suppression containments. The Report notes that no Mark III containment (Allens Creek type) is yet operational, and seeks to assuage doubts as to its safety with the vague and short comment: "Changes will be made in all containments-- whether of the Mark I, II or III type-- if tests and analyses indicate their structural capability is deficient." It is quite late in the day to make such an unspecific, unsubstantiated assertion with regard to the Allens Creek Project. The lack of safety assurance for the containment system of the new model plant implied in the above quotation indicates the requested license

should be denied, pursuant to the Board's mandate to consider issues of public safety and health (10 C.F.R. citation supra).

I would like also to argue that HL&P has not met the NRC's criteria for quality control, as set forth in 10 C.F.R. Part 50, Appendix B: "As used in this appendix, 'quality assurance' comprises all those planned and systemic actions necessary to provide adequate confidence that a structure, system or component will perform satisfactorily in service." This argument would be made in conjunction with evidence cited supra that HL&P, in its components testing program, used as the tester to manufacturer of the parts tested, a prima facie conflict of interest casting doubt on test results. For this reason also the license request should be denied.

Nor does HL&P comply with the NRC's requirement that it present adequate plans to cope with emergencies. 10 C.F.R. Part 50, Appendix E, states: "The Preliminary Safety Analysis Report shall contain sufficient information to assure the compatibility of proposed emergency plans with facility design features, site layout, and site location with respect to such considerations as access route, surrounding population distributions and land use." The section cites these and other items to be described "as a minimum": the organization for coping with emergencies; arrangements with local, state and Federal governmental agencies; and measures to be taken within and outside the site boundary." I was unable to locate a discussion of such plans for dealing with the most serious postulated emergencies in HL&P's PSAR. Therefore, the license should be denied.

CONTENTION 3 asks whether the applicant's new plant proposal contains

a method of storing its radioactive wastes in the Houston area, free of leakage, for 500,000 years. Experts agree that this is the length of time that plutonium, one of the most poisonous substances on the planet, will remain lethal. Applicant intends either long-term or short-term (pending transportation elsewhere) storage of radioactive wastes at the site; in either situation, the site will contain stored wastes most of the time, assuming it remains operational. As noted above, pursuant to 10 C.F.R. the burden of proof on safety issues is on the applicant, not the petitioner. Absent such assurances from applicant, license should at least be postponed pending resolution of certain safety issues involving reactor wastes by the NRC. The NRC's Annual Report, 1977, recommended that studies be undertaken to "identify and evaluate the relative safety and environmental impacts of alternative low-level waste-disposal methods. . . ." This would seem to be a shaky technical background for the undertaking of storage of radioactive wastes at a site for about 30 years (these doubts apply also to changing batches of waste shipped elsewhere every three months, each batch replaced by another). It cannot be determined whether applicant would meet the NRC criteria for waste disposal until those criteria have been formulated to the satisfaction of the NRC.

CONTENTION 4* raises the issue of transportation of radioactive wastes to another site for disposal. My concerns are that the particularly stringent record of safety required for transporting such wastes from the proposed site area could not be achieved.

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*This contention was originally misnumbered 5.

Under this contention, I would challenge the applicant to meet the burden-of-proof requirement of 10 CFR Section V.c in the area of safe transport of radioactive wastes; the requirement should be met in conjunction with new information, nonexistent before 1976, regarding additional highways to be built in the site area, unexpected and accelerating population density in the area with accompanying increased vehicular traffic, and increased projections for air traffic in the area. Petitioner is not required to show how these might pose hazards in applicant's transportation of radioactive wastes. Rather, the applicant, under burden-of-proof requirements, must demonstrate that the additional hazards (in common sense) these new conditions pose will not hamper safe transportation along our Texas highways. Although lack of time precludes discussion of these arguments in greater detail here, I will cite some of the source materials that would be used to substantiate this contention. These sources all contain new information, unavailable prior to 1976, of vital relevance to the new plant proposal:

1. Growth Options, Charles Sevino et al., Rice Center for Community Design, Houston, Texas, 1978. A study of growth patterns in Houston and its surrounding area. The study shows, among other things, the following: the highest rate of population growth in the region studied was southwest of Houston, in the area of the proposed plant; population increases in the region as a whole are accelerating; the rate of increase of vehicular traffic in the region as a whole is accelerating.

2. Twenty Year Program, published by the Houston-Galveston Regional, 1978. Shows new highways, many in planning only after 1975, to be built in the vicinity of the proposed site. The impetus for the upsurge in

highway construction plans was a large grant of money by the Texas State Legislature to the State Department of Highways in 1977.

3. Houston-Galveston Regional Transportation Study, July 1978. The study presents new information in showing accelerating vehicular traffic over the last three years, unanticipated before 1976. A startling finding of the study is that the increased vehicular milaage is fairly evenly divided between urban and rural areas— and there were nearly "2.2 billion vehicle trips in the area studied during 1977. Common sense indicates that this would pose an unanticipated burden on applicant in the transport of wastes; unanticipated because original population projections published by applicant both before and after 1975 are sharply at variance with these projections and those of the Houston Chamber of Commerce (published yearly in bulletin form), as well as those of the aforementioned Twenty Year Program.

4. Population projections of the Houston Chamber of Commerce, 1978 issuance, for the Houston/Galveston Standard Consolidated Statistical Area (projections for this area to 1990), at variance with population projections used by applicant. I regret that I am unable to give a detailed analysis of HL&P's original projections and how they are at fault, but the extremely rushed schedule of these hearings precludes anything other than a statement made "with reasonable specificity." Further argument would come at the full hearing. I would wish, however, to cite as an example of HL&P's faulty anticipation of growth in population density in the zone of concern Table 2.2 in the Final Environmental Statement submitted by HL&P in support of approval of this particular site in 1974. The table projects "cumulative populations" within 50 miles of the proposed site as being

2,710,000 by 1990. Sales and Marketing Magazine, in a story printed in the Chronicle October 31, 1978, quoted a survey predicting growth of Houston alone to a population of 2,387,000 by 1982. The Houston Chamber of Commerce's current projection of population for Harris County alone for 1985 is 2,932,000. Obviously, when Fort Bend County, Austin County, Wharton, and other counties within the 50-mile zone of concern are added to the Chamber of Commerce projections, the original demographic projections used in support of original site approval are grossly inaccurate.

CONTENTION 5* reopens the issue of the suitability of the Allens Creek site. A reopening of this issue is countenanced by the NRC itself. The Partial Initial Decision (43 F.R. 40328) states that the findings have demonstrated no reason why the site is not suitable~~x~~ but that "the Appeal Board's ~~xxxxxx~~ memorandum and order of December 9, 1975, in affirming the Licensing Board in its partial initial decision, stated that these findings by the Licensing Board in its partial initial decision are subject to later revision should further developments or new information warrant." Thus even the Allens Creek site is not a res judicata.

Although I wish to retain site suitability as an issue separate from my other contentions, so that possible rejection of other contentions will not foreclose my raising this issue, I will use sources cited above and others to show that population, transportation, distance from major population center, and other factors calculated in support of the initial site approval are inaccurate. The license should therefore be denied.

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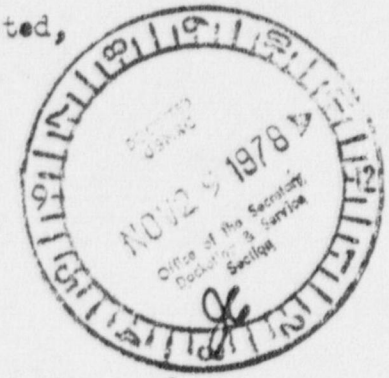
*Misnumbered Contention 6 in original submission.

Again, I request the Board's leniency in its judgment of these remarks made in defense of my contentions, due to brevity of time, lack of effective access to many important materials, and petitioner's unfamiliarity with Commission procedure.

Respectfully submitted,

Katharyn Hooker



November 21, 1978

CERTIFICATE OF SERVICE

I hereby certify that copies of my Supplement to Oral Defense of Contentions (Docket 50-466) have been served on the following persons through deposit in the United States mail, first class, this 21st day of November, 1978.

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Respectfully,

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