

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
HOUSTON LIGHTING AND POWER COMPANY,	)	Docket Nos. 50-498
<u>ET AL.</u>	)	50-491
	)	
(South Texas Project, Units 1 and 2))	)	

NRC STAFF INTERROGATORIES TO, AND REQUEST FOR  
DOCUMENTS FROM, CITIZENS FOR EQUITABLE UTILITIES, INC.

The NRC Staff hereby requests that the Citizens for Equitable Utilities (CEU), pursuant to 10 CFR §§ 2.740b and 2.741, answer separately and fully, in writing under oath or affirmation, the following interrogatories and produce or make available for inspection and copying, all documentary material identified in the responses to interrogatories below by December 21, 1979.<sup>1/</sup> Each response to the interrogatories below shall be under oath or affirmation of the individual(s) who contributed thereto. For all references requested in these interrogatories, identify them by author, title, date of publication and publisher if the reference is published, and if it is not published, identify the document by the author, title, the date it was written, the qualifications of the author relevant to this proceeding, and where a copy of the document may be obtained.

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<sup>1/</sup> See Board's Order dated August 3, 1979 which sets forth the discovery schedule in this proceeding at 10.

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HOUSTON LIGHTING AND POWER COMPANY, )  
ET AL. )  
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(South Texas Project, Units 1 and 2 )

Docket Nos. 50-498  
50-499



CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF INTERROGATORIES TO, AND REQUEST FOR DOCUMENTS FROM, CITIZENS FOR EQUITABLE UTILITIES, INC." and "NRC STAFF INTERROGATORIES TO, AND REQUEST FOR DOCUMENTS FROM, CITIZENS CONCERNED ABOUT NUCLEAR POWER" 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 5th day of November, 1979:

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Contention No. 1<sup>2/</sup>

There is no reasonable assurance that the activities authorized by the operating license for the South Texas Nuclear Project can be conducted without endangering the health and safety of the public in that:

1. There has been a surveying error which has resulted in the eastern edge of the Unit 2 Mechanical Electrical Auxiliary Building being constructed one (1) foot short (in the east-west direction) from its design location. This error violates 10 CFR Part 50, Appendix B, Sections X and XI.
2. There has been field construction error and as a result, extensive voids exist in the concrete wall enclosing the containment building, in violation of 10 CFR Part 50, Appendix B, Sections IX and X.
3. In violation of Quality Assurance and Quality Control requirements applicable to the South Texas Nuclear Project with regard to document control (10 CFR Part 50, Appendix B, Sections VI and XVII), a field document relating to cadweld inspections has been lost.
4. There are membrane seals in the containment structure which are damaged, indicating a violation of 10 CFR Part 50, Appendix B, Sections X, XV and XVI.
5. There are steel reinforcement bars which are missing from the concrete around the equipment doors in the containment and such bars are missing from the containment structure as well, indicating violations of 10 CFR Part 50, Appendix B, Sections XV and XVI.
6. There are cadwelds which have been integrated into parts of the plant structure which are not capable of being verified with regard to compliance with 10 CFR Part 50, Appendix B, in violation of Sections IX and X of Appendix B.

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<sup>2/</sup> The numbering and wording of the contentions stated in these interrogatories conforms to that accepted by the Atomic Safety and Licensing Board in its Memorandum and Order dated August 3, 1979.

7. Quality Control as per the requirements of 10 CFR Part 50, Appendix B, in particular Sections III and IX, has not been complied with, because:
- a. Efforts by quality control inspectors to verify that design changes were executed in accordance with purposes of the original design were repeatedly and systematically thwarted.
  - b. There were personnel other than the original designer approving design changes with no first hand knowledge of the purpose of the original design.
  - c. There were design changes approved by personnel unqualified in the type of design where the change was made.
  - d. There were numerous pour cards that were supposed to record the correct execution of concrete pours which were falsified by numerous persons.
  - e. There has been and continues to be assaults on the Applicant's quality control inspectors, continual threats of bodily harm to those inspectors, firing of inspectors, and other acts constituting a pattern of behavior designed to intimidate the inspectors. As a result of the intimidations, certain inspections were never done because the inspectors decided to play cards over a period of four months rather than risk their safety on the plant grounds.

As a result of the foregoing, the Commission cannot make the findings required by 10 CFR §§ 50.57(a)(1) and (2) necessary for issuance of an operating license for the South Texas Nuclear Project.

- 1-1
- a. Upon what person or persons do you rely to substantiate your case on Contention 1?
  - b. Provide the addresses and education and professional qualifications of any persons named in your response to a. above.

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- c. Identify which of the above persons you intend to call as witnesses on this contention.
  
- 1-2. Provide summaries of the views, positions or proposed testimony on Contention No. 1 of all persons named in response to Interrogatory 1-1, that you intend to present during this proceeding.
- 1-3. State the specific bases and references upon which the persons in Interrogatory 1-1 rely to substantiate their views regarding Contention 1.
- 1-4. Identify (noting the basis for each identification) the location of the voids which "exist in the concrete wall enclosing the containment building".
- 1-5. Identify the "field document relating to cadweld inspections" that you assert has been lost.
- 1-6. Identify (noting the basis for each identification) the specific location of the "membrane seals in the containment structure which are damaged".
- 1-7. Identify (noting the basis for each identification) the specific location of the "missing reinforcement bars".
- 1-8. Identify (noting the basis for each identification) the specific location of the cadwelds "which are capable of being verified".
- 1-9. Specifically identify all "efforts" referred to in Contention 1.7.a. and explain in detail how these "efforts" were "thwarted".
- 1-10. Identify the "personnel" in Contention 1.7.b. as well as your bases for your belief that such "personnel" had no "knowledge of the purpose of the original design".
- 1-11. Identify the "personnel" in Contention 1.7.c. as well as your bases for your belief that such "personnel" were "unqualified in the type of design where the change was made".



- 1-12. Identify: a) which pour cards referenced in Contention 1.7.d were "falsified" and indicate what areas of the facility are affected, if any, explaining the bases for your belief that the alleged falsification would affect the facility and its ability to operate safely; and b) the names of the persons who "falsified" the pour cards as well as the dates (as accurately as possible) of such falsification.
- 1-13. Identify the type, extent, and date of the assaults referenced in Contention 1.7.e. as well as the names of those persons involved with each assault.
- 1-14. Identify all instances of "threats of bodily harm", "firing", and "behavior designed to intimidate" referenced in Contention 1.7.e. describing for each instance the names of the persons involved.
- 1-15. Identify all the inspections (giving dates and specific detail with respect to what was to be inspected) that were never done as a result of the "intimidations" referenced in Contention 1.7.e. In addition, state the names of the persons who were to conduct each of these inspections.
- 1-16. Identify all documentary or other material that you intend to use during this proceeding to support this contention and that you intend to offer as exhibits on this contention or refer to during your cross-examination of witnesses presented by applicants and/or the NRC Staff.

Contention No. 2

NRC inspection records (Inspection and Enforcement Reports #77-03, 2/77; #77-03, 4/77, and #78-08, 5/78) indicate that South Texas Project construction records have been falsified by employees of Houston Lighting and Power Company and Brown and Root, in violation of 10 CFR Part 50, Appendix B, Sections VI and XVII.

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As a result, the Commission cannot make the findings required by 10 CFR §§ 50.57(a)(1) and (2).

- 2-1 a. Upon what person or persons do you rely to substantiate your case on Contention 2?
- b. Provide the addresses and education and professional qualifications of any persons named in your response to a. above.
- c. Identify which of the above persons you intend to call as witnesses on this contention.
- 2-2. Provide summaries of the views, positions or proposed testimony on Contention No. 2 of all persons named in response to Interrogatory 2-1, that you intend to present during this proceeding.
- 2-3. State the specific bases and references upon which the persons in Interrogatory 2-1 rely to substantiate their views regarding Contention 2.
- 2-4. Indicate in detail what aspects or language of the Inspection Report cited in Contention 2 support your assertion that STP construction records have been falsified by employees of Houston Lighting and Power Company and Brown and Root. In addition set forth the names of those employees referenced in Contention 2 who falsified STP construction records, indicating how and when these documents were falsified.
- 2-5. Identify all documentary or other material that you intend to use during this proceeding to support this contention and that you intend to offer as exhibits on this contention or refer to during your cross-examination of witnesses presented by applicants and/or the NRC Staff.

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Contention No. 4

The South Texas Project (STP) Category I structures and equipment are inadequately designed and constructed with respect to wind loadings as demonstrated by the fact that actual wind velocities associated with hurricanes which have

occurred along the Texas Gulf Coast have exceeded wind loadings for which STP structures have been designed and evaluated. Further there are non-Category I structures containing equipment which if destroyed or damaged would jeopardize the safe operation of STP. These non-Category I buildings are not designed to withstand winds generated by hurricanes and if damaged would provide missile type projectiles which could penetrate Category I structures which are inadequately protected.

- 4-1     a. Upon what person or persons do you rely to substantiate your case on Contention 4?
  - b. Provide the addresses and education and professional qualifications of any persons named in your response to a. above.
  - c. Identify which of the above persons you intend to call as witnesses on this contention.
- 4-2. Provide summaries of the views, positions or proposed testimony on Contention No. 4 of all persons named in response to Interrogatory 4-1, that you intend to present during this proceeding.
- 4-3. State the specific bases and references upon which the persons in Interrogatory 4-1 rely to substantiate their views regarding Contention 4.
- 4-4. Identify all documentary or other material that you intend to use during this proceeding to support this contention and that you intend to offer as exhibits on this contention or refer to during your cross-examination of witnesses presented by applicants and/or the NRC Staff.
- 4-5. Indicate the wind velocities and resulting wind loadings (setting forth calculations, assumptions and bases for assumptions) which you believe should serve as the basis for the design of the Category I structures and equipment at STP.



- 4-6. Indicate specifically the equipment in the non-Category I structures "which if destroyed or damaged would jeopardize the safe operation of STP." With regard to the destruction or damage of such equipment, specifically explain how such damage or destruction would occur and how the safe operation of STP would be jeopardized. In your response to this interrogatory set forth all assumptions and bases for each assumption.

Contention No. 5

Information is available<sup>\*/</sup> which indicates that the Staff's treatment (in the construction permit FES, section 5.4.1.3 and Table 5.7) of bioaccumulation of radionuclides in aquatic organisms is inadequate or in error.

- 5-1 a. Upon what person or persons do you rely to substantiate your case on Contention 5?
- b. Provide the addresses and education and professional qualifications of any persons named in your response to a. above.
- c. Identify which of the above persons you intend to call as witnesses on this contention.

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<sup>\*/</sup> Toombs, George L. and Culter, Peter B., Lower Columbia River Environmental Radiological Survey in Oregon, contracted by the U.S. Public Health Service and Oregon State Board of Health.

Breytong, \_\_\_\_\_, The Nuclear Dilemma, Ballentine Press.

Eicholtz, Geoffrey, Environmental Aspects of Nuclear Power, published by Ann Arbor Sciences. 1976

Chapman, Rice and Price, Uptake and Accumulation of Radioactive Zinc by Marine Plankton, Fish and Shellfish, U. S. Fish and Wildlife Service Bulletin 135, Vol. 58, pp. 279-92.

Chapman, Rice and Baptist, Ecological Aspects of Radioactivity in The Marine Environment, Environmental Radiation Symposium, Johns Hopkins University, pp. 107-80.

Brown, J. Martin, Health, Safety and Social Issues of Nuclear Power, in W. C. Reynolds, ed. The California Nuclear Initiative; Analysis and Discussion of the Issues, (Institute for Energy Studies, Stanford University, 1976).

- 5-2. Provide summaries of the views, positions or proposed testimony on Contention 5 of all persons named in response to Interrogatory 5-1, that you intend to present during this proceeding.
- 5-3. State the specific bases and references upon which the persons in Interrogatory 5-1 rely to substantiate their views regarding Contention 5.
- 5-4. Specify in detail (setting forth all assumptions and bases for each assumption) how the Staff's treatment in FES section 5.4.3.1 and Table 5.7 regarding bioaccumulation of radionuclides in aquatic organisms is inadequate or in error.
- 5-5. Indicate specifically for each aquatic organism (setting forth all assumptions and bases for each assumption) how bioaccumulation of radionuclides should be accounted for.
- 5-6. Identify all documentary or other material that you intend to use during this proceeding to support this contention and that you intend to offer as exhibits on this contention or refer to during your cross-examination of witnesses presented by applicants and/or the NRC Staff.

Contention No. 6

Staff and Applicant calculations of radionuclides deposition rates do not take into account the relatively high and continual humidity in the area of STP to determine compliance with 10 CFR Part 50, Appendix I.

- 6-1
  - a. Upon what person or persons do you rely to substantiate your case on Contention 6?
  - b. Provide the addresses and education and professional qualifications of any persons named in your response to a. above.
  - c. Identify which of the above persons you intend to call as witnesses on this contention.

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- 6-2. Provide summaries of the views, positions or proposed testimony on Contention No. 6 of all persons named in response to Interrogatory 6-1, that you intend to present during this proceeding.
- 6-3. State the specific bases and references upon which the persons in Interrogatory 6-1 rely to substantiate their views regarding Contention 6.
- 6-4. Specify the "continual" humidity levels that are referenced in Contention No. 6, noting for each level of humidity the source of the information. In your response state whether the humidity levels are in terms of absolute or relative humidity, and if in terms of relative humidity, specify the range of temperatures associated with each level of humidity.
- 6-5. Identify all documentary or other material that you intend to use during this proceeding to support this contention and that you intend to offer as exhibits on this contention or refer to during your cross-examination of witnesses presented by applicants and/or the NRC Staff.

Contention No. 7

Due to soil conditions peculiar to this area, inadequate water flow in the Colorado River and diminishing groundwater supply, Applicant will not be able to maintain the 7,000 acre cooling pond at a sufficient level to allow continued safe operation of STP.

- 7-1
  - a. Upon what person or persons do you rely to substantiate your case on Contention 7?
  - b. Provide the address and education and professional qualifications of any persons named in your response to a. above.
  - c. Identify which of the above persons you intend to call as witnesses on this contention.
- 7-2. Provide summaries of the views, positions or proposed testimony on Contention No. 7 of all persons named in response to Interrogatory 7-1, that you intend to present during this proceeding.

- 7-3. State the specific bases and references upon which the persons in Interrogatory 7-1 rely to substantiate their views regarding Contention 7.
- 7-4. Specify the soil conditions "peculiar to this area" which would affect the ability of the applicants to maintain the level of the 7,000 acre cooling pond.
- 7-5. Specify (setting forth all assumptions and bases for each assumption) all records of water flow or other evidence that indicates that the water flow in the Colorado River will be inadequate to maintain the water level of 7,000 acre cooling pond.
- 7-6. Specify all evidence that indicates that the groundwater supply is diminishing in the area of STP. Further, indicate the rate that the groundwater level is diminishing, giving references to all data.
- 7-7. Describe the mechanism or mechanisms whereby reductions in groundwater supply will affect maintenance of the 7,000 acre cooling pond level. Set forth all assumptions and bases for the assumptions associated with each described mechanism.
- 7-8. Identify all documentary or other material that you intend to use during this proceeding to support this contention and that you intend to offer as exhibits on this contention or refer to during your cross-examination of witnesses presented by applicants and/or the NRC Staff.

Contention No. 8

Proposed amendments to 10 CFR Part 50, Appendix E (43 Fed. Reg. 37473, August 23, 1978) are to be used as "interim guidance" in evaluating inter alia applications for operating licenses. Such amendments require that emergency plans must, in defined circumstances, extend, as appropriate, to areas beyond the Low

Population Zone (LPZ). Such requirements are applicable in the case of STP because of the following:

- a. Matagorda Elementary School with an enrollment of more than 80 students, is located approximately 8 miles from STP in a south-southeasterly direction. Persons at the school would have to travel towards STP in order to evacuate since the only evacuation route, State Highway 60, ends in Matagorda.
- b. At the end of State Highway 60 in Matagorda there begins a secondary road, 2031, which crosses the intracoastal canal and continues 6.6 miles down the peninsula, ending on the Gulf. There are numerous residents in this area who have no other route than Highway 60 for evacuation.
- c. The evacuation plan formulated by the Texas Department of Public Safety is only "in case of nuclear war." An incomplete plan by the Texas Health Department would not apply to Matagorda as it only covers a 5-mile LPZ.

Accordingly, the STP emergency plan does not conform to the requirements of the above referenced proposed amendments to 10 CFR Part 50, Appendix E which are currently effective as interim guidelines.

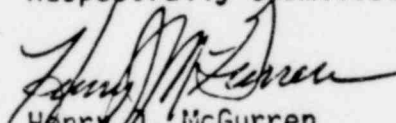
- 8-1
- a. Upon what person or persons do you rely to substantiate your case on Contention 8?
  - b. Provide the addresses and education and professional qualifications of any persons named in your response to a. above.
  - c. Identify which of the above persons you intend to call as witnesses on this contention.

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- 8-2. Provide summaries of the views, positions or proposed testimony on Contention No. 8 of all persons named in response to Interrogatory 8-1, that you intend to present during this proceeding.
- 8-3. State the specific bases and references upon which the persons in Interrogatory 8-1 rely to substantiate their views regarding Contention 8.
- 8-4. Indicate the emergency provisions (specifying the bases for each provision) which should be established with regard to (1) Matagorda Elementary students and (2) the residents referred to in Contention 8(b).
- 8-5. Indicate the provisions (specifying the bases for each provision) that should be established by the appropriate agencies of the State of Texas for the Matagorda area you reference.
- 8-6. Identify all documentary or other material that you intend to use during this proceeding to support this contention and that you intend to offer as exhibits on this contention or refer to during your cross-examination of witnesses presented by applicants and/or the NRC Staff.

Respectfully submitted,

  
Henry D. McGurren  
Counsel for NRC Staff

Dated at Bethesda, Maryland  
this 5th day of November, 1979

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