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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD



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

)
)
) Docket Nos. STN 50-498 OL
) STN 50-499 OL
)
)

MEMORANDUM AND ORDER
(August 3, 1979)

1. In our April 3, 1979 Prehearing Conference Order Ruling Upon Intervention Petitions, LBP-79-10, 9 NRC _____, affirmed, ALAB-549, 9 NRC _____ (May 18, 1979), we admitted as parties to this proceeding Citizens Concerned About Nuclear Power, Inc. (CCANP) and Citizens for Equitable Utilities, Inc. (CEU). We accepted two CCANP contentions and two CEU contentions (both subject to further particularization or rewriting). We also determined that we needed further information to rule on other contentions of CEU. By our Memorandum and Order of June 8, 1979, we noted that the parties were attempting to reach agreement on the wording of various contentions, and we permitted them to report on their efforts by July 2, 1979.

CCANP has submitted reformulated contentions, and CEU has filed a supplement to its original petition setting forth additional information concerning its contentions. The Applicants and NRC Staff have each commented on all the contentions.

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At the outset, we would note that both CCANP and CEU have expanded the scope of some of their previously filed contentions. As pointed out by the Applicants and Staff, however, they have not even attempted to demonstrate good cause, as contemplated by 10 CFR §2.714(a), why we should entertain such "untimely" contentions. Nonetheless, some of those contentions bring into issue potentially serious safety questions. Normally we would seek to ascertain the reason for the delay with respect to each contention — for example, did the information giving rise to it become available to the intervenors only after their earlier contentions had been submitted. Because there has already been considerable delay in the initiation of this proceeding, we have elected not to inquire about the causes of delay but, rather, to admit those late-filed contentions which raise, in our opinion, significant safety or environmental issues.

We take this action on the basis of our balancing the five factors specified in 10 CFR §2.714(a)(1):

(i) We are assuming that no good cause exists for failure to file on time — although, as we pointed out, that may not actually be the case.

(ii) CCANP and CEU have no other means effectively to protect their interests. As we pointed out in our April 3, 1979 Prehearing Conference Order, both the Commission and the

Appeal Board have acknowledged that limited appearance statements are not a complete substitute for participation as a party.

(iii) The extent to which the intervenors' participation in the development of particular issues may reasonably be expected to assist in developing a sound record is the factor which we regard as most significant in the present context. Absent our admission of the issues, no adjudicatory record at all will be made on them. We have no doubt that the Staff will attempt to resolve any issue which is brought to its attention. But to the extent that significant safety or environmental issues are involved, and given the expressed intent of CCANP and CEU to assist in resolving such issues, we believe that it does no disservice to the Staff to find that a better record will likely be created if CCANP and CEU participate in the resolution of such issues. We so find.

(iv) CCANP and CEU are the only parties opposed to the licensing of the plant; their interests will not be represented by any other parties. We note that one of CCANP's "late" issues appears to duplicate one of CEU's earlier-filed contentions. For that issue, we are allowing the CEU contention and not that of CCANP (although we are considering it to be sponsored jointly).

(v) Admission of the late contentions will somewhat broaden the issues, but it should not delay the proceeding. The Staff reports that the Final Environmental Statement is not scheduled to be released until October, 1980, and the Safety

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Evaluation Report and Supplement are not scheduled to be released until September, 1980 and January, 1981 respectively. No evidentiary hearing is thus likely to be held before late 1980 at the earliest. This proceeding is therefore still in its incipiency. As can be seen from the preliminary schedule which we are here adopting, sufficient time is available thoroughly to explore the "late" contentions without causing any delay in the proceeding.

2. With these observations in mind, we turn to the particular contentions:

CCANP-2: This contention puts into issue whether construction of the facility has been carried out in accordance with applicable requirements. Six deficiencies were specified in the original contention. As revised, three subparagraphs ((e), (f), and (g)) of the original contention have been deleted, but several others have been added. (Subparagraphs d., e., and f. of the revised contention correspond to subparagraphs (b), (c), and (d) of the original contention.) The Applicants and Staff have no objection to acceptance of the contention encompassing the practices specified in subparagraphs d., e., and f. of the revised contention. (The Staff would rewrite the contention by eliminating certain argumentative terms and introductory material, by adding certain appropriate references, and by making various editorial changes.)

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We accept the contention in the form rewritten by the Staff. But we also add the practices specified in subparagraphs a., b., and c. of the revised contention (concerning allegedly defective membrane seals, missing steel reinforcement bars, and unverifiable cadwelds); these are to be renumbered as paragraphs 4, 5, and 6 of the contention as rewritten by the Staff.

Subparagraph g. of the revised contention, dealing with alleged falsification of records, appears to be the same as the portion of CEU's Contention 9 which the Staff and Applicants would accept. For the reason set forth earlier (p. 3), we are accepting that portion of the CEU Contention and rejecting CCANP subparagraph g. But we will consider the CEU Contention as being jointly sponsored by both CEU and CCANP.

CCANP in addition lists 5 particular quality assurance deficiencies. These apparently are different from the falsification charges appearing in subparagraph g. and in CEU Contention 9. CEU as well as CCANP appears to be attempting to litigate some of the five particular QA deficiencies, but CCANP's contention is more specific than CEU's contention. The five matters appear to us to be possibly significant safety matters, and we admit them for that reason. The contention will be considered to be sponsored by both CCANP and CEU and is admitted as paragraph 7. (subparagraphs a-e) of CCANP's rewritten contention. The rewritten contention appears as Contention 1 in the Attachment to this Memorandum and Order.

CCANP-3: The Applicants and Staff agree that this reformulated contention, dealing with overpressurization, is acceptable.

We admit it in the form set out in the Attachment to this Memorandum and Order, as Contention 3.

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CEU-1: This contention raises questions as to hurricane wind speeds in the area of the plant. The Staff would accept it; the Applicants believe it goes beyond the originally stated contention but, aside from timeliness, do not oppose its admission on other grounds.

We agree with the Staff that the original contention may by inference be read as including the additional material which has now been specifically identified. In any event, the matter is significant enough to warrant its adjudicatory resolution even if it be considered as untimely. We admit the contention as Contention 4, as set forth in the Attachment to this Memorandum and Order.

CEU-2 and 3: CEU has combined its original Contentions 2 and 3. The Staff has attempted to emphasize the matters of CEU's concern and urges us to accept it in that form. The Applicants do not object to its admission as so rephrased. We admit that contention, set forth as Contention 5 in the Attachment to this Memorandum and Order.

CEU-4: CEU has withdrawn this contention.

CEU 5: The Applicants and Staff each state that this contention is acceptable. We agree. It is set forth as Contention 6 in the Attachment to this Memorandum and Order.

CEU 6: This contention raises a question as to the cow-milk pathway used by the Applicants in analyzing doses of radioactivity under 10 CFR Part 50, Appendix I. The original contention seemed to claim that there were cows closer to the plant than the 5-mile radius employed by the Applicants in their analysis, and in our April 3 Order we ruled that some greater specificity must be supplied in order to create a valid contention. No greater specificity has been provided. Accordingly, we agree with the Applicants and Staff that this contention should now be rejected.

CEU-7: This contention raises a safety issue with respect to the availability of make-up water for the main cooling reservoir. In our April 3 Order, we ruled that further particularization of the information and data was necessary. CEU has provided such further particularization. The Applicants regard the particularization as an untimely amendment; but, aside from untimeliness, they have no objection to the contention. The Staff would accept the contention.

We agree with the Staff that CEU has merely provided information regarding the basis for its contention. But even if it were untimely, we regard the contention as significant enough to warrant its acceptance under the analysis provided earlier in this opinion.

We accept the contention as Contention 7, set forth in the Attachment to this Memorandum and Order.

CEU-8 claims that the evacuation plan does not conform to proposed 10 CFR Part 50, Appendix E (which the Commission has directed to be used as interim guidance) in that it fails to provide for evacuation of certain areas which are outside the LPZ. The contention also raises questions about the applicability of certain evacuation plans prepared by agencies of the State of Texas.

The Staff takes the position that information on the proximity of a school to the facility and the limited applicability of state emergency criteria is sufficient to raise an issue as to whether emergency planning measures are necessary for areas beyond the LPZ. We agree. We note that the Applicants perceive the types of "special circumstances" appropriate for invoking evacuation beyond the LPZ under the proposed regulations as much more limited in scope than do we. Cf. Pennsylvania Power and Light Co. (Susquehanna Steam Electric Station, Units 1 and 2), LBP-79-6, 9 NRC ____, ____ (March 6, 1979) (slip op. pp. 30-34). We therefore find it unnecessary to condition the admission of this contention, as Applicants suggest, on the outcome of the additional rulemaking on emergency planning which the Commission has recently initiated. See 44 Fed. Reg. 41483 (July 17, 1979).^{1/}

We accept the contention in the form rewritten by the Staff. It is set forth as Contention 8 in the Attachment to this Memorandum and Order.

^{1/} That outcome could, of course, affect the ultimate resolution of the issues raised by this contention.

CEU-9: As mentioned earlier, this contention brings into issue a number of asserted construction deficiencies. Only the first deficiency (item 9A) seems to have been raised in CEU's original contention. The Staff would have us accept this item as rewritten, and the Applicants have no objection to our doing so. We accept that item as Contention 2, set forth in the Attachment to this Memorandum and Order.

The Applicants and Staff each oppose the remainder of the contention because (1) the items are beyond the scope of the original contention and hence are untimely, and (2) they fail to set forth the precise construction defects involved. We reject the untimeliness claim for reasons already set forth. But we agree that the remaining items are not specific enough to constitute contentions. As we stated earlier, however, at least some of these items are covered by the rewritten Contention 1 which we are accepting. We accordingly reject the CEU items as separate contentions but, as also stated, we will consider CEU and CCANP co-sponsors of Contention 1.

We expect CCANP and CEU to coordinate their presentations with respect to Contentions 1 and 2 (which in effect we are treating as joint contentions). They may engage in separate discovery efforts, as they wish, but, to the extent these issues are considered at an evidentiary hearing, CCANP and CEU will be expected to plan their direct evidence and cross-examination so as to avoid duplication, to the extent possible.

3. We adopt the following preliminary schedule for this proceeding:

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| 1. Discovery commences | Issuance of this Order |
| 2. Last day for submission of first-round discovery requests | November 5, 1979 |
| 3. Responses to first-round discovery requests | December 21, 1979 |
| 4. Last day for submission of supplemental discovery requests | February 22, 1980, or 30 days after service of draft environmental statement or safety evaluation report, whichever is later |
| 5. Responses to supplemental discovery requests | Within 30 days after service of request |
| 6. Further discovery requests on new information appearing in FES or SER supplements | Within 15 days after service of FES or SER supplement, as applicable |
| 7. Responses to discovery on new information in FES or SER supplements | Within 30 days after service of request |

It should be noted that supplemental discovery requests may be based only on information appearing in newly issued documents or in responses to first-round discovery requests. In the latter case, however, the request should be submitted within 30 days of service of the first-round response.

Motions for summary disposition may be filed at any time up to 45 days prior to a scheduled hearing date, with responses to

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be filed three weeks thereafter. Hearing dates are not now being scheduled, but it is anticipated that they will follow issuance of the FES and SER supplement, respectively, by approximately 45-60 days (depending, in part, on whether motions for summary disposition are pending). Testimony in writing will be required to be filed 21 days prior to the start of the evidentiary hearings during which it is to be heard.

IT IS SO ORDERED.

THE ATOMIC SAFETY AND LICENSING
BOARD

Charles Bechhoefer

Charles Bechhoefer, Chairman

Dated at Bethesda, Maryland,
this 3rd day of August, 1979.

Attachment:
Contentions Accepted by
Licensing Board

ATTACHMENT

Contentions Accepted by Licensing Board:

1. (CCANP, CEU)

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 X, 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.

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 the purposes of the original design were repeatedly and systematically thwarted.

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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.

2. (CCANP, CEU)

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.

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

3. (CCANP)

South Texas Project Units 1 and 2 are pressurized water reactors. Such reactors have experienced about thirty reported instances (most of which occurred during startup or shutdown) in which temperature-pressure limits of the reactor vessels (as reflected in plant technical specifications) in the reactor coolant-system have caused excessive pressures on reactor pressure vessels. The South Texas Nuclear Project does not incorporate

design features or administrative procedures which are adequate to prevent or ameliorate such pressure transients nor have any technical specifications been proposed for this purpose. The South Texas Nuclear Project will, therefore, not be in compliance with 10 CFR Part 50.

4. (CEU)

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 1 structures containing equipment which if destroyed or damaged would jeopardize the safe operation of STP. These non-Category 1 buildings are not designed to withstand winds generated by hurricanes and if damaged would provide missile type projectiles which could penetrate Category 1 structures which are inadequately protected.

5. CEU)

Information is available^{*/} 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.

*/ 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.

Bryeitong, _____, 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 Zink 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).

6. (CEU)

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.

7. (CEU)

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.

8. (CEU)

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.