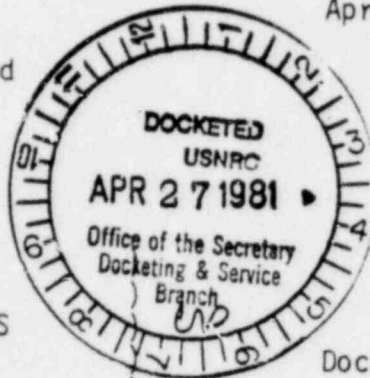


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Intervenor
Rt. 1, Box 93-C
Little Mountain, S.C. 29075
April 7, 1981

Atomic Safety & Licensing Board
Herbert Grossman
Dr. Frank Hooper
Gustave Lindenger



Docket No. 50-395 OL

In the Matter of:

SOUTH CAROLINA ELECTRIC AND GAS
COMPANY, ET AL.

(Virgil C. Summer Nuclear
Station, Unit 1

Summary of Contentions

The following is an updated summary of the Intervenor's standing contentions in the above-captioned licensing proceeding.

Contention A2 (a) The Applicant lacks the financial qualifications necessary to safely operate and decommission the Summer station in compliance with NRC rules and regulations;

The Applicant has incurred a long term debt of almost \$673 million dollars (SCE&G Annual Report, 1979, p. 21) to finance the construction of the Summer station. The equity ratio for the company has dropped 36.3%, which is short of the 40% that Executive Vice President for Finance Oscar Wooten states "should be the objective of any prudently managed utility". Mr. Wooten further stated, "In light of the incident at Three Mile Island, 40% equity ratio may soon be considered insufficient." The Intervenor contends that the Applicant would be unable to afford an extended shut-down or the cost of clean-up and repairs from an accident.

An accident of the magnitude of Three Mile Island - costs presently passing a billion dollars - would clearly bring financial ruin to the Applicant.

The Applicant contends that, should an accident render them insolvent, the Public Service Authority, owner of 1/3 of the reactor, would absorb costs.

The legality of joint ownership is being contested in a pending anti-trust

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suit by Central Electrical Co-operative. This suit may result in SCE&G being required to take sole ownership. This would bring further financial liability to bear upon the Applicant.

Contention A2 (b) The sum allocated by Applicant for decommissioning of the Summer plant is grossly inadequate and does not conform to the requirements of 10 CFR 50.33(F).

The Applicant's figures for decommissioning costs are below current industry figures for decommissioning a reactor of this size after its useful life. The Intervenor contends that sufficient capital must be set aside for dismantling the plant and returning the site to a safe condition. Draft NUREG 0584 stated that utilities may encounter future financial difficulties of such magnitude as to prevent them from performing their obligations to decommission retired nuclear plants.

NUREG 0590 states, "Generally the primary goal of decommissioning of nuclear facilities should be dismantlement and the release of the property on an unrestricted basis at the earliest practical date"(report at 3).

A report by General Public Utilities figured the cost of decommissioning TMI Unit 2, prior to the accident, at \$125 per kilowatt of capacity (in 1978 dollars). This would bring an inflation adjusted cost (+25% for 1981) for decommissioning the Summer reactor to \$140 million.

The adequacy of these cost projections is contingent upon there being no accident that would necessitate a more costly clean-up. The Intervenor contends that the Applicant is unable to provide adequate "funding at commission" to insure the decommissioning of the reactor in the event of a TMI type accident.

The Intervenor asserts that the Applicant is financially unable to provide adequate "funding at commission" for dismantling the plant after its useful lifespan. The Intervenor reiterates that the Applicant lacks the financial capability to safely decommission the reactor in the event of a TMI-type accident. The State of New York postulated a billion dollars (1980) would be necessary to dismantle a 1,000 megawatt reactor (NRC-RM-50-3).

The Applicant has failed to evidence the design capacity and financial capability to safely maintain spent fuel at the site for the operating life of the reactor. Adequate plans for the ultimate disposition of spent fuel are a necessary consideration in regard to financial qualifications. Prior to the operation of the facility, the applicant must have a plan for the safe maintenance and disposal of the spent fuel generated over the life span of the plant. This plan must necessarily include the costs of ultimate disposal of spent fuel.

The Applicant's present estimated operating costs do not take into consideration potential major repair and replacement costs. The costs of replacing the Westinghouse Steam Generators has caused significant financial difficulties for other utilities and should be considered as a financial contingency.

Robert Guild, attorney, 310 Pall Mall Street, Columbia, S.C., 29201. Mr. Guild has extensive experience with regard to the financial qualifications of the Applicant as a result of his participation in numerous hearings involving the Applicant before the S.C. Public Service Commission.

Contention A3 The Applicant has not met the requirements of the NRC staff to assure that the probability of occurrence of an ATWS event is acceptably small.

The ATWS concern is an issue of generic consideration that has been in a rule-making proceeding for years. It is the Intervenor's position that the V.C. Summer plant should be required to operate under any forthcoming NRC regulations for ATWS concerns and not allowed to circumvent these important safety considerations due to a date of filing for construction.

Dr. Michio Kaku, a nuclear physicist, will present the Intervenor's case on ATWS concerns. A summary of Dr. Kaku's testimony in regard to ATWS is attached (See Attachment "1"). *page 13*

Contention A4 (a) The FSAR is inadequate with respect to the description of seismic activity in the area of the Summer plant site;

(b) The plans for monitoring site seismicity are inadequate in that they do not consider the seismic effect of filling the reservoir. Site seismicity should be monitored for one year subsequent to filling the reservoir and prior to the granting of an operating license.

The Intervenor contends that a near-field magnitude of 5.3 should be used for assessing seismic safety. The recently- discovered Water Creek Fault near the reactor poses new seismic considerations that must be resolved prior to licensing. The results of the study of this fault are as yet unavailable and will be presented to the Board upon consideration.

There are areas of concern in regard to the ability of the emergency sirens to withstand a design basis earthquake. There are also unresolved seismic considerations in regard to the seismic integrity of certain bridges that would be part of evacuation routes. The same seismic concerns apply to meteorological and field radiation monitoring networks and communication systems.

The Intervenor will assert that due to the continuing seismic activity induced by the reservoir, and the unknown seismic inter-reaction of the pump storage, that seismic monitoring be continued through 1983.

Dr. John Carpenter, Department of Geology, University of South Carolina, Columbia, S.C., 29208, will present the Intervenor's concerns in regard to this contention.

Contention A8 The Applicant has made inadequate preparations for the implementation of his emergency plan in those areas where the assistance and cooperation of state and local agencies are required.

The following witnesses will testify about the probability of an accident at the V.C. Summer reactor, its environmental impacts, and the ability of the Applicant and state and local agencies to adequately respond.

Dr. Michio Kaku - Department of Physics, City College of New York, 138 St. at Convent Ave., N.Y., N.Y., 10031. Dr. Kaku is a professor of nuclear physics at CCNY. He will address the accident potential for the V.C. Summer reactor. He will challenge the probability projections for accidents and assess the environmental impacts of major nuclear accidents. (See Attachment 1)

County Emergency Preparedness Personnel - It is the Intervenor's position, from talking with county personnel responsible for emergency planning, that these individuals are not fully cognizant of the consequences of a nuclear accident. Regardless of the probability of an accident, it is this kind of short-sightedness which contributes to a poorly designed emergency plan. To complicate the issue, the number of agencies and personnel involved makes coordination of emergency planning difficult; in case of an accident, there is room for serious concern that bureaucratic mistakes could result in the public not being adequately informed and assisted.

The following representatives from the county Offices of Emergency Preparedness will be called to testify about the counties' input into the emergency plan:

- Colonel James Delouch and Hugh Boyd, Richland County O.E.P., 1429 Senate Street, Columbia, S.C., 29201, 254-9296;

- George Douglas, Fairfield County O.E.P., P.O. Box 216, Winnsboro, S.C., 29180; 635-4444;

- Thomas Longshore, Jr., Newberry County O.E.P., 3239 Lewis Rich Rd., Newberry, S.C. 29108, 276-4295;

- James R. Andonegui, Coordinator, Lexington County O.E.P., County Administration Building, 212 South Lake Dr., Lexington, S.C., 29072, 359-8342.

Emergency Welfare Service Personnel - The Intervenor will call EWS personnel, from both the counties and the school districts, who will deal with the emergency evacuation plan as it applies to schools and institutions. The names of these individuals have not yet been available to the Intervenor. The Applicant has claimed no responsibility for including in an emergency plan such facilities; the state is just now formulating its plan. It is the Intervenor's position that the difficulties involved in developing a workable emergency plan for schools and institutions in the 10-mile zone have been greatly underestimated and, therefore, deserve the scrutiny of this Board.

Medical Personnel - The Intervenor will call the following medical personnel to testify as to the inadequate medical facilities and the inadequate number of medical personnel who would be immediately available to respond to the circumstances resulting from a nuclear accident:

- Dr. Dale Campbell, Richland County Hospital, 3301 Harden St. Columbia, S.C., 29203.
- Dr. Janet Greenhut, 209 W. High St., Winnsboro, S.C., 29180.
- Dr. William Lyles, surgeon, Fairfield County Hospital, Winnsboro, S.C. 29180.

Agriculture - C.H. Coleman, Jr., Rt. 1, Box 207, Blair, S.C., 29015. Mr. Coleman, a dairy farmer, will represent area farmers and outline their needs and considerations. He will testify as to SCE&G's noncompliance with regulations in regard to agricultural considerations involved in developing an emergency plan.

SCE&G Personnel Responsible for Public Information Concerning the Emergency Plan - The Intervenor will call SCE&G Public Information personnel to question what the Intervenor deems to be inadequacies in the documents used to educate the public about emergency response at the V.C. Summer plant. (See Attachment 2.) Area residents should be fully informed about four general areas of concern, as recommended by NRC staff; these include: (1) the nature

and probability of accidents; (2) the effects of accidents on people and the environment; (3) the means of public notification of accidents and impacts; (4) what actions the public should take in the event of an accident. The utility is only addressing the latter two of these concerns. We feel that the citizens must fully understand all four of these points to be prepared to safely respond to all contingencies.

Contention A9 The quality control of the Summer plant is substantially below NRC standards as evidenced by consistently substandard workmanship, in several aspects, during the construction of the plant.

The Intervenor will present past construction workers and supervisory personnel to testify as to substandard workmanship in safety related areas.

Workers - Clarence Crider, Stanley Fort

Supervisory - Curtis Wisenhaut

Dr. Michio Kaku will present testimony that will illustrate the increased possibility of class 9 accidents due to defects in workmanship in critical safety areas.

Contention A10 The following effects - on a long term basis - have been sufficiently underestimated by the Applicant and the Staff so as to compromise the validity of the favorable Benefit-Cost balance struck at the construction permit phase of this proceeding;

a) The somatic and genetic effects of radiation releases, during normal operation, to restricted and unrestricted areas, said releases being within the guidelines and/or requirements of 10 CFR Part 20, and Appendix I to 10 CFR Part 50;

b) The health effects of the uranium fuel cycle, given the release values of the existing Table S-3 of 10 CFR Part 51. (Should the Commission modify Table S-3 prior to the litigation of this contention, the Board will entertain motions from any of the parties respecting modifications to this contention.)

The following witnesses will testify as to the health effects of the nuclear fuel cycle: *Michio Kaku three*

Dr. Earl Z. Morgan - School of Nuclear Engineering, Georgia Institute of Technology, Atlanta, Ga., 30332. Dr. Morgan is currently professor of health physics at the School of Nuclear Engineering; previously, he was Director of the Health Physics Division at the Oak Ridge National Laboratory for 20 years. He also founded the American Nuclear Health Physics Society. (See Attachment for a more comprehensive biographical sketch.) Dr. Morgan will testify about the somatic and genetic effects of radiation releases. (See Attachments ~~three~~ *four* including references, which summarize Dr. Morgan's testimony.)

Dr. Helen Caldicott - 1445 Commonwealth, West Newton, Mass., 02165. Dr. Caldicott, a pediatrician, has done extensive research on cancer and leukemia rates in children. She is currently at the Boston Childrens' Hospital Medical Center. (see Attachment for more extensive biographical information.) Dr. Caldicott will address the somatic and genetic effects of radiation releases. (See Attachment *5* for a summary of her testimony.)

Dr. Chauncey Kepford - 433 Oriando Ave., B14, State College, Pa., 16801. Dr. Kepford is a chemist at Pennsylvania State College. He is preparing his summary, and it will be available around the end of April. He will address the health effects of the uranium fuel cycle.

Additional References: Hcnicker vs. Hendrie, A proceeding before the NRC, 1978 Docket No. 78-3371-NA-CV.