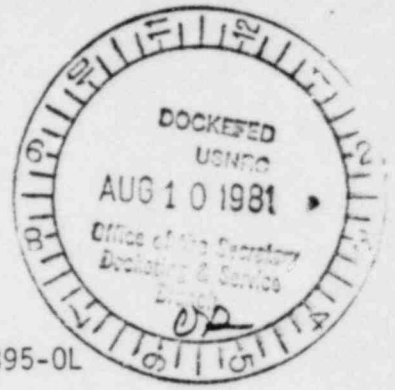
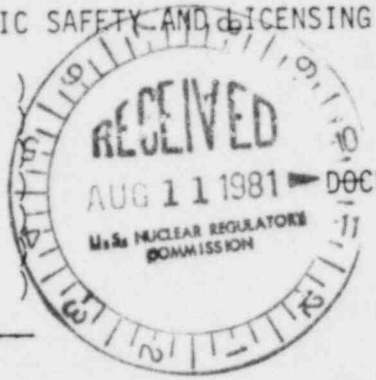
UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD





In the Matter of:

SOUTH CAROLINA ELECTRIC AND GAS COMPANY, et. el.

Virgil C Summer Nuclear Station, Unit 1

DOCKET NUMBER: 50-395-OL

INTERVENOR'S BRIEF ON EMERGENCY PLANNING CONTENTION AND DR. KAKU'S SUPPORTING TESTIMONY

The ignorance and misunderstanding amongst state and local officials as to the potential impacts of accidents they may be called upon to respond to, threatens the ultimate adequacy of the plan. For example, George Douglass, Director of the Fairfield County Office of Emergency Preparedness, (the host count of the reactor) agreed with me that the public should be educated as to the possibility and impacts of a major nuclear accident (tr. 2163-3). Yet Mr. Douglass states he believes the chances ofr a serious accident are "almost approacning nil" (tr. 2164-1) and he do n't "think there would be the type of release that would be the type of release that would be the cause of any deaths." (tr. 2167-25)

NUREG 0654 recognizes the potential severity of core melt sequences. 0654 anticipates consequences from the worst core melt sequence as possibly exceeding Protective Action Guidelines and posing life threatening doses outside the EPZ. (D. Planning Basis. 2. Emergency Planning Zone B & C) 0654 aniticipates thorough emergency plans for the 10 mile EPZ will allow for adequate emergency measures outside the zone in the event of life threatening consequences beyond ten miles.

State and local officials' admissions of ignorance as to consequences of a core melt accident raise serious doubts of the efficacy of their plans within the 10 mile zone. If Mr. Douglass doubts there will be any accidents that could cause fatalities, he doesn't understand the planning basis for 0654. If Mr. Douglass

D503
S 0/1

doubts there will be any accidents that could cause fatalities, he doesn't understand the planning basis for 0654. If Mr. Douglass imparts his underestimation of serious accidents to his planning and the local citizens, the adequacy of the plan to adequately mitigate serious consequences is doubtful.

The TMI accident that gave rise to 0654 was beyond design basis. The premise of 0654 is to enable the realistic mitigation of accidents - including core melts beyond design basis. The Staff and Applicant's position is that if the mechanical steps of Part II are committed to paper memorandums, emergency plans are adequate. I contend that without understanding the seriousness of accidents beyond design basis - as reflected in Part I of 0654 - it is unrealistic to believe that Part II of 0654 can be abstractly implemented to adequately cope with all emergency contingencies.

Nowhere in 0654 is Mr. Goldberg's assertion that Part I of the document is to be ignored in the Board's assessment of adequate planning. Nor is there anything in 0654 that states Part I should not be taken into consideration and understood by state and local agencies.

Goldberg summarized his objections to Dr. Kaku's testimony as three-fold: (1) irrelevant; (2) challenges Commission rules; (3) Dr. Kaku is allegedly unqualified.

Relevance. Judge Grossman stated that "Dr. Kaku's testimony supplies basically the nature of the releases that could be expected within those zones and something that should be taken into account in the emergency planning."

Without Dr. Kaku's testimony there will be nothing on the record to reflect the nature and magnitude of radioactive releases from which to determine whether or not "adequate protective measures can and will be taken in the event of a radiological emergency." (10 CFR Part 50.33(3))

Rule Challenge. I have continued to assert that Dr. Kaku's testimony does not challenge Commission rules. It is my position that a discussion of probabilities of core melts, the inventory of radioactive releases, their impacts on the 10 mile EPZ and the 50 mile Ingestion Zone are all within permissible parameters of litigation in this proceeding. The Commission's Policy Statement of TMI-2 Issues in Operating License Proceedings, allows litigation that would refine the 0654 regulations. Parties may also challenge the sufficiency of the new requirements.

Qualifications. Dr. Kaku has presently completed nearly five hours of voir dire. I believe this lengthy examination more than adequately established his qualifications to testify as to:

(1) PWR probabilities;

(2) radioactive inventories released in the event of a serious accident;

(3) the nature and behavior of the radioactive plume in the event of a release.

In summary, Mr. Goldberg's assertion that accidents have "nothing to do with the ability to successfully implement the emergency plan" (tr. 1719-13) strives to eviserate the heart of the contention's concerns for adequate public safety. It seems necessary for the emergency forces to have a realistic understanding of the probabilities and potentialities of the catastrophe they are being asked to mitigate.

The transcript reflects that none of the local or state officials (with one exception) had any notion of whether they would be dealing with 4, 40, 400 or 4,000 potential fatalities in the event of a major core melt.

General George Wise, Director of the State Office of Emergency Preparedness, illustrated a critical ignorance of the magnitude of a core melt by claiming the radiation of a "reactor meltdown is quite insignificant compared to" a 20 KT nuclear weapon. (tr. 2213-14)

This comparison is drawn simply to illustrate that the state and local officials are unaware of post-TMI core melt considerations. Dr. Kaku's testimony is essential for the record to reflect the nature of accidents that officials must plan for (which could eventuate a radioactive release thousands of times greater than a 20 KT nuclear weapon.)

Bringing state and local officials' understanding of accident impacts up to an adequate level to comprehend and prepare for major accidents is not a lengthy or complicated endeavor. The basic problem lies in the Applicant (and nuclear industry) down-playing accident probabilities and impacts. This problem is compounded by the NRC position reflected by Mr. Goldberg - that if the paperwork is right, you don't have to look any further into the adequacy of emergency planning.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	
SOUTH CAROLINA ELECTRIC & GAS COMPANY and	)	
	)	
SOUTH CAROLINA PUBLIC SERVICE AUTHORITY	)	Docket No. 59-395 OL
	)	
(Virgil C. Summer Nuclear Station)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "Intervenor's Brief on Emergency Planning Contention and Dr. Kaku's Supporting Testimony" were served upon the following persons by deposit in the United States mail, first class postage, this 7th day of August, 1981:

Herbert Grossman, Esq.
Chairman, Atomic Safety and Licensing Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. Frank F. Hooper
School of Natural Resources
University of Michigan
Ann Arbor, Michigan 48109

Mr. Gustave A. Linenberger
Member, Atomic Safety and Licensing Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Chairman, Atomic Safety and Licensing Appeal Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Richard P. Wilson, Esq.
Assistant Attorney General
South Carolina Attorney General's Office
P.O. Box 11549
Columbia, S.C. 29211

Larry Mahan
South Carolina Electric & Gas Company
P.O. Box 764
Columbia, S.C. 29218

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

George Fischer, Esq.
Vice President & Group Executive - Legal Affairs
S. C. Electric & Gas Company
Post Office Box 764
Columbia, S. C. 29202

Steven C. Goldberg, Esq.
Office of the Executive Legal Director
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. Chase R. Stephens
Docketing and Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

J.B. Knotts, Jr., Esq.
Debevoise & Liberman
1200 17th Street, N.W.
Washington, D.C. 20036

Brett Bursey

Brett Bursey, Intervenor