

'81 DEC -2 A9:31

December 1, 1981

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
OFFICE OF SECRETARY
REGULATORY & SERVICE
BRANCH

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:)
SOUTH CAROLINA) Docket No. 50-395 OL
ELECTRIC & GAS COMPANY)
et al. (Virgil C. Summer)
Nuclear Station, Unit 1)

APPLICANTS' (1) REPLY TO INTERVENOR'S
"FINDINGS OF FACTS AND CONCLUSIONS ON
EMERGENCY PREPAREDNESS" AND NRC STAFF'S
"PROPOSED FINDINGS OF FACT AND CONCLU-
SIONS OF LAW IN THE FORM OF A SUPPLE-
MENTAL PARTIAL INITIAL DECISION ON
EMERGENCY PLANNING ISSUES" AND (2)
MOTION TO STRIKE EXTRA-RECORD MATERIAL
IN INTERVENOR'S PROPOSED FINDINGS

Applicants, in accordance with 10 C.F.R. § 2.754,
submit the following reply findings of fact and conclusions
of law. Pursuant to 10 C.F.R. § 2.730, Applicant's also move
to strike material referred to in or accompanying Intervenor's
proposed findings which is not part of the record.

I. Motion to Strike Extra-Record Material Contained in
Intervenor's Proposed Findings of Facts and Conclusions
on Emergency Preparedness

1. The Applicant moves to strike those portions of the
Intervenor's proposed "Findings of Facts and Conclusions on
Emergency Preparedness" which were not in evidence when the
record on Contention A8 (emergency planning) was closed
September 24, 1981.

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2. In his proposed findings, Intervenor references a document entitled "Richland County-City of Columbia Disaster Operation Procedure #4 (DCP #4), Radiation Release Accident, V.C. Summer Nuclear Station" dated October 5, 1981 (Intervenor's Proposed Findings, 3) which document is attached to his proposed findings. Intervenor also refers to a conversation between the Intervenor and Richland County Sheriff Frank Powell (Intervenor's Proposed Findings, 8) and a letter dated October 12, 1981 from Sheriff Powell to Hugh K. Boyd, Jr. in response to the Richland County Disaster Operation Procedure #4, which is also attached to his proposed findings. (Intervenor's Proposed Findings, 8). Neither of the two documents referenced by the Intervenor and attached to his proposed findings were identified or admitted into evidence during the evidentiary hearings on emergency planning. Sheriff Powell did not file testimony nor was he a witness in the proceeding. The Applicant was not afforded the opportunity to cross-examine as to the content of either the documents or conversation referenced by the Intervenor. Intervenor has not moved to reopen the record on emergency planning (See Tr. 4674) nor made the requisite showing in support thereof.^{1/} Accordingly, Applicants move the Board to strike such references.

^{1/} The Licensing Board has the discretion to reopen the record to consider new evidence. Its decision depends on appraisal of three factors: 1) Is the motion timely? 2) Does it address significant safety (or environmental)

II. Reply to Intervenor's Findings of Facts
and Conclusions on Emergency Preparedness

3. In his proposed findings and conclusions on emergency planning, Intervenor does not quarrel with the existence of adequate emergency plans for the V.C. Summer Nuclear Station. Rather, Intervenor is concerned primarily over implementation of the plans in the event of an emergency at the Summer plant. (Intervenor's Proposed Findings, 1) Specifically, Intervenor is concerned with the Applicant's ability to implement its emergency plans when implementation requires interface between the Applicant and state and local emergency response agencies.

4. Intervenor's contention that off-site emergency plans could not be implemented adequately in an emergency situation is without support in the record. (Intervenor's Proposed Findings, 1-3). NRC Regulations in 10 C.R.R. § 50.47(a)(2) provide that the Commission will base its findings as to the adequacy of off-site emergency plans on review of the Federal Emergency Management Agency (FEMA) determinations as

(Footnote cont'd from previous page)

issues? 3) Might a different result have been reached had the newly proffered material been considered initially? In the Matter of Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 & 2), ALAB-598 NRC (June 24, 1980); In the Matter of Kansas City Gas & Electric Co., et al. (Wolf Creek Generating Station, Unit No. 1), ALAB-462, 7 NRC 320, 338 (1978); In the Matter of Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-138, 6 AEC 520, 523 (1973).

to whether state and local plans are adequate and capable of implementation. A FEMA finding constitutes a rebuttable presumption on the question of adequacy. (10 C.F.R. § 50.47(a)(2)), (See Letter from John E. Dickey, FEMA, to Brian K. Crimes, NRC, June 1, 1981, NRC Staff Exhibit 5). The Acting Director of the Plans and Preparations Division of FEMA Region IV, Mr. Jack D. Richardson, testified that the plans would be effective in reducing injury and are capable of being implemented. (See Applicant's Proposed Findings, para. 155) Mr. Richardson's assessment of the state and local emergency plans is supported by the testimony of the responsible officials of the various agencies that would be called upon to respond in the event of an emergency at the Summer plant. (Tr. 2022, 2028, 2038-41 2057, 2092-93, 2228-29, 2151-53, 2168, 2185). For further discussion see Applicant's Proposed Findings on public notification (para. 73-85), transportation (para. 86-113), decontamination (para 114-125), medical facilities (para. 126-143), and the emergency exercise (para. 149-164).

5. Intervenor contends there is an obvious lack of preparedness by medical officials and lack of facilities to handle radiation injuries. (Intervenor's Proposed Findings, 3-4). This contention is not supported by evidence in the record. To the contrary, there is substantial evidence from the Applicant concerning the ability of local medical facilities

to handle contaminated injured patients. Applicant's chief witness on emergency planning, Mr. Kenneth R. Beale, testified concerning the decontamination capabilities of the various county organizations. There are a total of 205 available showers in the four county area plus additional Army facilities at Fort Jackson for personnel decontamination. (See Applicant's Proposed Findings, para. 125). Vehicle decontamination can be accomplished using firefighting equipment. (See Applicant's Proposed Findings, para. 124). For complete discussion of decontamination see Applicant's Proposed Findings para. 114-125. Mr. Beale also testified as to the capability of medical facilities to handle and treat radiological patients. Local hospitals in the four county area, including Moncrief Army Hospital, have the ability to treat 67 radiological patients at any one point in time. (See Applicant's Proposed Findings, para. 136). There are multiple additional facilities in South Carolina, plus back-up capacity in North Carolina, Tennessee, and Georgia, and National Guard mobile hospital units. (Id.). The Applicant stresses that once a radiological patient has been decontaminated, he may be admitted as an ordinary patient not requiring special facilities.

6. Based on the accident scenario postulated by Intervenor's witness Dr. Michio Kaku, Intervenor contends the Applicant

would be unable to respond to the hypothesized accident in a timely fashion. (Intervenor's Proposed Findings, 4-5). There is no evidentiary support in the record that the Applicant would not adequately respond according to its emergency plan. Dr. William R. Stratton, Dr. Robert J. Budnitz, Mr. Kenneth R. Beale, and Mr. Lewis Storz testified for the Applicant regarding Dr. Kaku's scenario. Dr. Stratton and Dr. Budnitz were critical of Dr. Kaku's testimony as being unreasonable, unrealistic, incorrect, out of date, and out of step with the majority of scientific opinion with respect to basic reactor physics, reactor operation, accident analyses, and ECCS analyses. (See Applicant's Proposed Findings, para. 214). Both Dr. Budnitz and Dr. Stratton explained that various post-TMI developments, notably enhanced operator training and hardware improvements, have reduced the prospects for a repetition of this accident (Tr. 4188-91, 43-4). (See Applicant's Proposed Findings, para. 217). Mr. Storz testified that the large break LOCA coupled with ECCS failure postulated by Dr. Kaku was a "spectacular" accident from an operator's standpoint calling into play programmed responses by plant personnel. (Id., para 217). Mr. Beale testified that consistent with NUREG 0654 2/ a large break LOCA and subsequent ECCS failure mandates virtually immediate declaration of a general emergency setting into motion both on-site and off-site emergency

2/ In October 1981, NUREG 0654 was adopted by the NRC as Reg. Guide 1.01, Rev. 2.

plans. (Tr. 4428), (Applicant's Proposed Findings, para. 217). Mr. Beale and Mr. Storz further testified as to the chain of command in the event of an emergency situation at the plant. (Tr. 4528-51). The station emergency plan clearly sets forth the persons authorized to make emergency decisions. (Tr. 4560) See Applicant's Proposed Findings para. 210-213 for complete discussion on the on-site emergency response.

7. Intervenor next contends that state and local emergency plans are inadequate to assure protection, care, feeding, and possible evacuation of livestock. (Intervenor's Proposed Findings, 6) This is contrary to evidence in the record. Mr. William H. Funchess, Clemson University Agricultural Extension Service, testified that he had been involved in emergency planning in the event of a nuclear accident and that he believed the plans were adequate. (See Applicant's Proposed Findings para. 167-168). The testimony of Charles Howard Coleman, beef cattle and dairy farmer, does not contradict Mr. Funchess' testimony. (See Intervenor's Proposed Findings, 6). Mr. Coleman testified that he had not spoken with either Clemson or the Applicant about his concerns and that he needed more information on the emergency plans. (Applicant's Proposed Findings, para. 169).

8. Intervenor contends that the Applicant has failed to discharge its responsibility to educate the public concerning "how, when, and why" to respond in the event of an accident

at the Summer plant. (Intervenor's Proposed Findings, 6) This is contrary to evidence in the record. All of the various local and state officials involved testified that public education programs had been undertaken which will be a continuing program in the future. (See Applicant's Proposed Findings, para. 41-50). In addition, the Applicant's emergency information brochure describes the operation of the .C. Summer Nuclear Station, effects of radiation, operation of the sirens, emergency broadcast system, evacuation sectors, and routes. (See Id. para. 58-63). Improvements are being made in the brochure, but even as presently written, it conforms to the requirements of Part II of NUREG 0654/Reg. Guide 1.01. (Applicant's Proposed Findings, para. 71).

9. The Intervenor has repeatedly asserted that the public education program cannot be effective unless the public has a detailed understanding of accident scenarios and possible consequences of a nuclear release. (Intervenor's Proposed Findings, 6-7). The Intervenor's contention is controverted by evidence from the Applicant, NRC Staff, and his own witnesses. State and local officials, subpoenaed by the Intervenor, testified that the public needs primarily to know what to do when notified of an emergency. (See Applicant's Proposed Findings, para. 41-50). Mr. Brian K. Grimes, Mr. Thomas A. Kevern, and Mr. Jack D. Richardson, testifying for the NRC Staff, gave the opinion that education of the public

and emergency personnel should concentrate on what they should do and how they should protect themselves in an emergency. (Applicant's Proposed Findings, para. 38, 39, 218). Mr. Grimes stressed that the emphasis should be on carrying out assigned tasks, rather than knowledge of accident parameters or radiation effects. (Id., para. 39). Applicants' expert witnesses, Dr. Budnitz and Dr. Stratton concurred in this opinion. (Id., para. 218).

10. Intervenor contends that in the event of a power outage preventing operation of the sirens alternate means of notification would be inadequate to allow for timely evacuation of the EPZ. (Intervenor's Proposed Findings, 7-8). This is contrary to the testimony of the Applicant's witness Mr. Beale (Tr. 4511-15). Intervenor's contention is also inconsistent with the testimony of his witnesses, Colonel De Loache and Colonel Boyd as to the effectiveness of alternate means of notification (See Applicant's Proposed Findings, para. 79). To the extent Intervenor's contention is based on a conversation not part of the record it cannot provide the basis for a finding and references to the conversation should be stricken as discussed in Applicant's Motion to Strike, above.

11. Intervenor contends the number and location of residents who would need evacuation assistance is "no more than a computerized guesstimate." (Intervenor's Proposed Findings, 9).

This contention is without merit. Intervenor's witness, Mr. Thomas E. Longshore, Jr. of Newberry County, testified that information on transportation disadvantaged individuals is on file with the Department of Social Services. (See Applicant's Proposed Findings, para. 89).

12. Intervenor contends that failure to activate the EBS within the prescribed 15 minute time limit during the May 1 drill points out a major deficiency in the Applicant's rapid response to Dr. Kaku's scenario. (Intervenor's Proposed Findings, 9), (See Applicant's Proposed Findings, para. 216). There is a major difference between the emergency drill conducted on May 1, 1981 and Dr. Kaku's scenario. The drill simulated a gradually deteriorating situation in which each of the four emergency levels was reached in sequence, as opposed to Dr. Kaku's drastic scenario which mandates immediate declaration of a general emergency. 3/ (See Applicant's Proposed Findings, para. 151). Once a general emergency is declared, the sirens will be activated within 15 minutes followed by broadcasts over the EBS. (Applicants' Exhibit 30 (a) page 52A), (Applicants' Proposed Findings, para. 74-75).

13. Intervenor makes six specific recommendations concerning the Applicant's emergency plans. (Intervenor's Proposed

3/ In the event of a loss of coolant accident coupled with ECCS failure, NUREG 0654/Reg. Guide 1.01 requires that a general emergency be declared.

Findings, 9-10). The Applicant is in general agreement with the NRC staff Proposed Findings relating to these recommendations. (NRC Staff's Proposed Findings, para. 44-48). First, Intervenor recommends that a "clearer chain of management responsibility" be defined. (Intervenor's Proposed Findings, 9). Applicant agrees with the staff that no evidentiary basis for this recommendation exists. On-site emergency responsibilities and chain of command are unambiguously defined as amplified by the testimony of Mr. Beale and Mr. Storz. (Tr. 4528-4551). Second, Intervenor recommends that the Applicant undertake a "serious educational effort" concerning accident scenarios and plant parameters. As previously discussed, the Applicant, in conjunction with state and local officials have undertaken to educate those responsible for implementing the emergency plans as to their role in the event of a nuclear accident at the Summer station and such efforts will continue in the future. (See Applicant's Proposed Findings, para. 37-50, 73-85, 86-100, 114-125, 126-139, 149-164, 165-209). None of the witnesses for the Applicant, NRC staff, or the Intervenor, with the exception of Dr. Kaku, believed it necessary or desirable to educate emergency workers in the specifics of accident analysis and radiation effects. (See Applicant's Proposed Findings, para. 38-50, 218). Third, Intervenor recommends that the Applicant conduct a door to door public notification campaign. (Intervenor's Proposed Findings, 10). Applicant agrees with the

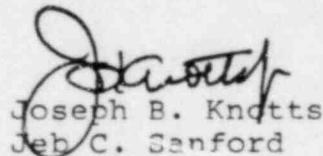
NRC staff th . this is beyond the scope of Contention A8. (NRC Staff's Proposed Findings, para. 17). Notwithstanding, the App' . nt has fulfilled the requirements of NUREG 0654 (Reg. Guide 1.01) with respect to the information brochure and intends to conduct a follow-up survey to assess public understanding of the instructions contained in the brochure (Applicant's Proposed Findings, para. 69). Fourth and fifth, Intervenor recommends that the Applicant install back-up battery power for the sirens and "black box fail safe" notification systems in each home situated in the EPZ. Again, this recommendation is beyond the scope of contention A8 and is not required by NRC regulations. In the event of a power outage, alternate means of notification are available through use of state and local emergency authorities. (See Applicants Proposed Findings, para. 73-85). Recommendation six involves agricultural considerations. This has been addressed and is the subject of a program thrcugh the Agricultural Extension Service of Clemson University. (See Id. para. 144-148).

CONCLUSION

For the foregoing reasons, the Intervenor's Proposed Findings of Facts and Conclusions on Emergency Preparedness should be rejected as not supported by the weight of the evidence, and the Applicant's Proposed Findings of Fact and

Conclusions of Law on Intervenor's Contention A8 Regarding Emergency Planning should be adopted as amply supported by the record. Applicants have no objection to the proposed findings and conclusions of the NRC Staff.

Respectfully submitted,



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Appendix A to
Applicants' Reply
Findings

OFFICE OF SECRETARY
DOCKETING & SUPPLEMENTAL DECISIONAL RECORD
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Reference is made to the table of exhibits transmitted under cover of our letter dated September 8, 1981. This Supplement completes the decisional record in the proceeding to date.

For the entry under Board Exhibits, please add:

BOARD EXHIBITS

<u>Number</u>	<u>Identified</u>	<u>Received</u>	<u>Description</u>
6	2528	1/	<u>An Earthquake Primer</u> by Bruce Bolt.

For the entry under Intervenor Exhibits, please substitute:

INTERVENOR EXHIBITS

1	1437	4008	NRC Report 79-35.
2	1437	4008	Deposition - Mr. Whisennant.
3	1437	4008	Deposition - Mr. Forte.
4	1972	4008	Brochure - SCE&G Public Information.
5	2551	2/	Reserved - Cross-examination of Mr. Sherwin.

For the entry under Applicants' Exhibits, please add:

APPLICANTS' EXHIBITS

<u>Number</u>	<u>Identified</u>	<u>Received</u>	<u>Description</u>
38	4427	4440	Summary of Emergency Actions at the Virgil C. Summer Nuclear Station based on Dr. Kaku's accident scenario, by Mr. Beale.
39	4506	4508	Corrected Version of Applicants' Exhibit 38.
40	4666	4666	Corrections to the Supplemental Testimony of Mr. T.C. Nichols following Tr. 3783, regarding the analysis of cost to drain the Fairfield Pump Storage facility, Monticello Reservoir and refill.

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- 1/ Identified but not received into evidence pending further argument and/or evidence on whether official notice is appropriate.
 - 2/ Discussion appears on Tr. page 4008, however, final action is deferred.