

5/27/81

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
SOUTH CAROLINA ELECTRIC & GAS )  
COMPANY )  
Virgil C. Summer Nuclear Station, )  
Unit 1 )

Docket No. 50-395



NRC STAFF RESPONSE TO APPLICANT'S MOTION FOR  
SUMMARY DISPOSITION OF INTERVENOR BURSEY CONTENTION 10

On May 7, 1981, the Applicant filed a motion for summary disposition of Intervenor Bursey's Contention 10<sup>1/</sup> pursuant to 10 C.F.R. §2.749. On the basis of the NRC Staff Final Environmental Statement (FES) (NUREG-0719), dated May 1981, and the attached affidavit, the Staff supports the present motion.

1/ Contention 10 states:

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.)

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DISCUSSION

Contention 10 alleges that the validity of the favorable cost-benefit balance struck at the construction permit stage has been "compromised" because the NRC Staff and the Applicant have underestimated (a) the somatic and genetic effects of radiation releases during normal operation and (b) the health effects of the uranium fuel cycle.

Contrary to Contention 10, the health effects from normal operation and the uranium fuel cycle have been adequately estimated and do not upset the favorable cost-benefit balance reached at the construction permit stage. Sections 4.5.5.1 and 4.5.5.2 of the FES discuss the health effects from normal operation and conclude that the risks are not significant. The Staff also concludes that the health effects of the uranium fuel cycle are insignificant when compared to those resulting from all natural background sources. FES, § 4.7.5. The environmental consequences of the uranium fuel cycle associated with the operation of the Summer Station were considered in the FES by considering the release values in Table S-3 of 10 C.F.R. Part 51 and by factoring the resultant impacts into the cost-benefit balance. FES, §§ 4.7 and 9.6. The Staff has reasonably concluded that the costs of operation of the Summer plant are outweighed by the benefits (FES, § 9.7), thereby reaffirming the favorable cost-benefit balance struck at the construction permit stage.

The health effects resulting from normal operation and the uranium fuel cycle have not been underestimated. In fact, they have been conservatively estimated by the Staff. The generic occupational exposure estimate has been increased from 500 person-rem/yr to a more conservative 1300 person-rem/yr. Affidavit of Edward F. Branagan at 2.

The overall health effects also have been conservatively estimated because the dose estimates and dose rates contained in the FES are much lower than those at which cancers have been observed in human population exposed to radiation. Id. at 3-4. The risk estimates used to estimate health effects in the FES were derived from the recommendations of the National Academy of Science Biological Effects of Ionizing Radiation Committee report in 1972, entitled "The Effects on Population of Exposure to Low Levels of Ionizing Radiation" (BEIR-I). The Commission has held that a Licensing Board can take official notice of the BEIR Report since it contains a "generally accepted evaluation of the effects of ionizing radiation; and can be relied on, in part, in ruling on summary disposition motions and rendering initial decisions. Public Service Co. of Oklahoma (Black Fox Station, Units 1 and 2), CLI-80-31, 12 NRC 264, 277 (1980).

The Appeal Board's decision in Philadelphia Electric Co. (Peach Bottom Atomic Power Station, Units 2 and 3) ALAB-640, \_\_\_ NRC \_\_\_ (May 13, 1981) contains radon release estimates that are higher in some respects than those considered in the Summer FES. The radon estimates found in that decision may be applicable to Summer using the special procedure established earlier by the Appeal Board to resolve the radon issue in Philadelphia Electric Co. (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-480, 7 NRC 796, 804-06 (1978). There the Appeal Board denied the Staff's motion to consolidate 17 proceedings regarding the generic radon issue to avoid unnecessary repetition. However, the Appeal Board decided that the completed record of a "lead case" on radon could

serve as the base point for the examination of the radon issue in the other proceedings. Id. at 805-806.

While the Staff was unable to consider these changes in radon release values contained in the recent Peach Bottom opinion because it was decided after the FES had been finalized, the Staff believes the changes in dose estimates do not significantly effect the health effects and will not alter the cost-benefit balance reached at the construction permit stage. Affidavit of Edward F. Branagan at 4-5. <sup>2/</sup>

CONCLUSION

As demonstrated in the Applicant's summary disposition motion and above, no genuine issues of material fact remain to be resolved with respect to Contention 10. Accordingly, the Board should grant summary disposition and dismiss Contention 10 from this proceeding.

Respectfully submitted,



Steven C. Goldberg  
Counsel for NRC Staff

Dated at Bethesda, Maryland  
this 27th day of May, 1981.

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<sup>2/</sup> The Appeal Board in Peach Bottom considered only radon release values and declined to decide the health effects issue at that time. Slip op. at 105.