

POOR ORIGINAL

APR 29 1981

Docket Nos. 50-424
and 50-425



MEMORANDUM FOR: Raymond F. Fraley, Executive Director
Advisory Committee on Reactor Safeguards

FROM: Robert L. Tedesco, Assistant Director
for Licensing
Division of Licensing

SUBJECT: DELETION OF ENCLOSURE BUILDING ON A. W. VOGTLE NUCLEAR PLANT,
UNITS NOS. 1 AND 2

References: (1) Letter from W. Kerr to A. Igne dated February 18, 1981
(2) Letter from D. Eisenhut to W. Ehrensperger dated December 1,
1980

On March 12, 1981, Mr. A. Igne of your staff called the Project Manager for the Vogtle Nuclear Plant and requested we provide a response to a letter he had received from Dr. Kerr (Reference 1) which raised two questions about the positions taken by the staff in our letter to Georgia Power Company (GPC) concerning the proposed deletion of the enclosure building for the containment on the A. W. Vogtle Nuclear Plant (Reference 2). References 1 and 2 are enclosed for ease of reference.

The NRC staff did not, at the time that the Reference 1 letter was written, assign a quantitative value to the apparent change in safety margin (Dr. Kerr uses the term "risk"). What was known at that time was that the CP holder was proposing to eliminate a major structural design feature (the containment enclosure building) and its safety grade exhaust and recirculation system, both of which had been described in the CP applications reviewed by the staff, with no compensating improvements in the design of the containment itself. With no other considerations, this could have resulted on a relative basis, in almost doubling boundary and tripling the thyroid LOCA dose at the low population zone boundary. Since our letter, Reference 1 was written, the CP holder has committed to a tighter containment leak rate limit than assumed in the CP review (0.2%/day vs 0.3%/day). He also plans to take credit, based on Post CP data, for better site meteorology than was assumed in the CP review. We have subsequently completed preliminary calculations and agree that these two factors will offset the potential dose increase that would otherwise result from eliminating these design features.

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Raymond F. Fraley

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The need for a cost-benefit analysis comes from 10 CFR 51 - Licensing and Regulatory Policy and Procedures for Environmental Protection, specifically section 10 CFR 51.20(b). The initially perceived cost (environmental effect) was increased radiation exposures to the public. This would be weighed against whatever benefits obtained from eliminating these design features (e.g. reduced cost, construction time, etc.). Since it now appears that there will be no increase in environmental effect above that considered at the CP stage, it is clear that the benefits will outweigh costs, environmentally speaking.

Original signed by

Robert L. Tedesco, Assistant Director
for Licensing
Division of Licensing

Attachment:
References 1 and 2

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