



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

ENCLOSURE 1

SAFETY EVALUATION

NORTH ANNA POWER STATION, UNITS 1 AND 2

DOCKET NOS. 50-338/339

CONFORMANCE TO REGULATORY GUIDE 1.97

INTRODUCTION AND SUMMARY

Virginia Electric and Power Company (the licensee) was requested by Generic Letter 82-33 to provide a report to the NRC describing how the post-accident monitoring instrumentation meets the guidelines of Regulatory Guide 1.97 as applied to emergency response facilities. The licensee's response to Regulatory Guide 1.97 was provided by letters dated January 31, 1984, May 10, 1985, July 5, 1985 and August 2, 1985.

A detailed review and technical evaluation of the licensee's submittals was performed by EG&G Idaho, Inc., under contract to the NRC, with general supervision by the NRC staff. This work was reported by EG&G in the Technical Evaluation Report (TER), "Conformance to Regulatory Guide 1.97, North Anna Power Station, Unit Nos. 1 and 2," dated February 1986 (attached). We have reviewed this report and concur with the conclusion that the licensee either conforms to, or has adequately justified deviations from, the guidance of Regulatory Guide 1.97 for each post-accident monitoring variable except for the variable containment sump water temperature.

EVALUATION CRITERIA

Subsequent to the issuance of the generic letter, the NRC held regional meetings in February and March 1983 to answer licensee and applicant questions and concerns regarding the NRC policy on Regulatory Guide 1.97. At these meetings, it was established that the NRC review would only address exceptions taken to the guidance of Regulatory Guide 1.97. Further, where licensees or applicants explicitly state that instrument systems conform to the provisions of the regulatory guide, no staff review would be necessary for those items. Therefore, the review performed and reported by EG&G only addresses exceptions to the guidance of Regulatory Guide 1.97. This Safety Evaluation addresses the licensee's submittals based on the review policy described in the NRC regional meetings and the conclusions of the review as reported by EG&G.

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EVALUATION

We have reviewed the evaluation performed by EG&G contained in the attached TER and concur with its bases and findings. The licensee either conforms to, or has acceptably justified deviations from, the guidance of Regulatory Guide 1.97 for each post-accident monitoring variable except for the variable containment sump water temperature. The installed temperature instrumentation for this variable does not meet the recommended environmental qualification for a post-accident situation. The licensee states that environmental qualification is not necessary because the pumps that draw water from the sump provide, by design, adequate net positive suction head, regardless of temperature. The staff disagrees. This instrumentation is needed to provide a quantitative measure of the removal of decay heat from the containment.

CONCLUSION

Based on the staff's review of the attached Technical Evaluation Report and the licensee's submittals, we find that the design of North Anna Power Station, Unit Nos. 1 and 2, is acceptable with respect to conformance to Regulatory Guide 1.97, Revision 2, except for the variable containment sump water temperature instrumentation. The licensee should provide instrumentation for that variable that meets the requirements of 10 CFR 50.49. If the licensee commits to complete the upgrade within a reasonable time period, we could find the licensee to be in conformance with the guide and issue a supplementary safety evaluation report to the effect.

Dated: March 31, 1988

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