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March 2, 1993

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
Control Room Habitability - Thyroid Dose Calculation

REFERENCES: (a) Letter from Mr. J. A. Tiernan (BG&E) to Mr. A. C. Thadani (NRC),
dated March 5, 1986, Control Room Dose
(b) Letter from Mr. G. C. Creel (BG&E) to NRC Document Control
Desk, dated September 1, 1989, Control Room Dose

Gentlemen:

Reference (a) issued our revised dose calculations for Control Room operators. This calculation provided integrated whole body and skin doses well below the dose limits established by 10 CFR Part 50, Appendix A, General Design Criteria (GDC 19). The thyroid dose criteria was considered suspended at that time, because the NRC staff was reviewing the iodine source term for the design basis loss-of-coolant accident. It was our understanding that the thyroid exposure limit would be addressed after the source term resolution. In Reference (a) we informed the NRC that we would suspend the dose calculation pending resolution of the source term.

By Reference (b), we resubmitted our Control Room Dose calculation, based on revised in-leakage data obtained through recently completed local leak rate testing, and an iodine removal efficiency consistent with that presented in the Technical Specifications. All assumptions and the calculational model were the same as in Reference (a), except that the source term was based on guidance in Standard Review Plan 6.5.2, Revision 2, which references Regulatory Guide 1.4, Revision 2, June 1974, Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss-of-Coolant Accident for Pressurized Water Reactors. This calculation reported whole body and skin doses only, and did not make mention of thyroid doses, as we were still awaiting guidance on the iodine source term. We expected such guidance in the form of a Generic Letter. The calculation presented in Reference (b) remains our Control Room Dose calculation-of-record.

We are currently in the process of a major system upgrade to our Control Room Heating, Ventilation and Air Conditioning (HVAC) in order to improve its reliability. As part of this effort, it is important that we establish the appropriate design parameters. One of the pertinent parameters is thyroid dose, which in turn depends upon the source term. The appropriate source term for the thyroid dose calculation has been in question, due in part to the proposed Control Room Habitability Generic Letter. This Generic Letter is listed as a Proposed Generic Communication by the NRC,

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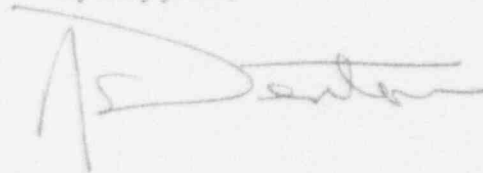
but has reportedly been considered for cancellation. We now understand the NRC has notified some licensees that the existing source terms will not be revised. More recently, the NRC published NUREG-1465, specifying draft source terms for Advanced Reactors which are potentially available for use by current licensees.

We consider re-establishment of our Control Room thyroid dose calculation integral to our Control Room HVAC Upgrade Project. Our intention is to evaluate the optimum combination of system design upgrades and analytical techniques to assure compliance with GDC 19. This Control Room HVAC project has been under development for a substantial period and its scope is scheduled to be determined by May 1993. We will advise you of our intentions at that time.

We do not consider the safety significance of this issue to be substantial. Our existing filtration and ventilation closure provide environmental protection to the operators, and radiation alarms are available to alert them to any unexpected radiation fields. Additionally, potassium iodide tablets and respirators are available for operator protection if needed. We feel that these measures will ensure the Control Room will remain habitable during and after all credible accident conditions, thereby providing adequate margin for assuring plant operability.

Should you have any further questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,

A handwritten signature in dark ink, appearing to read "D. A. Brune", with a long horizontal stroke extending to the right.

RED/NH/nh/bjd/dlm

cc: D. A. Brune, Esquire
J. E. Silberg, Esquire
R. A. Capra, NRC
D. G. McDonald, Jr., NRC
T. T. Martin, NRC
P. R. Wilson, NRC
R. I. McLean, DNR
J. H. Walter, PSC