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ELECTRIC ENGINEERING
DEPARTMENT

October 11, 1982

Mr. Ronald C. Haynes
Office of Inspection and Enforcement
Region I, U.S. NRC
631 Park Avenue
King of Prussia, PA 19406

Dear Mr. Haynes:

Subject: Calvert Cliffs Nuclear Power Plant
Units Nos. 1 and 2
License Nos. DPR-53 and 69
Nonroutine Radiological Environmental
Operating Report

This report is submitted to comply with the requirements of Appendix B Environmental Technical Specification Section 5.6.2.b.

Oyster samples were collected on August 27, 1982 from the Camp Conoy sampling location and analyzed for gamma-emitting radionuclides as required. The results of the analyses showed the presence of Ag-110m at 496 ± 9 pCi/Kg(wet). The oyster samples collected on the same date from the Kenwood Beach sampling location (the background location) showed Ag-110m at 12 ± 3 pCi/Kg(wet).

Detectable concentrations of Ag-110m were also observed in the crab samples collected during August, 1982 from Kenwood Beach, Rocky Point and Plant Site. The activity levels ranged from 17 ± 3 pCi/Kg(wet) at Kenwood Beach to 57 ± 8 pCi/Kg(wet) at Plant Site.

Radioactive releases in the first half of 1982 for all isotopes have been within the allowable limits specified in the Environmental Technical Specifications. The natural tendency of oysters to highly concentrate environmental silver is the cause of this event as was the cause of other similar events that were observed and reported during 1977-1980.

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If the activity level of Ag-110m observed in shellfish samples during this sampling period were to last during the balance of 1982 (ignoring any decrease in activity due to natural radioactive decay and depuration) then the doses to the GI-Tract and the Whole Body of a maximum exposed individual (with the consumption rate of 5 Kilogram/year and the dose conversion factors as recommended in Reg. Guide 1.109) are estimated at less than 0.1 m rem/yr and less than 0.1×10^{-3} m rem/yr, respectively during 1982. These doses are small fractions of the allowable limit of 25 m rem/year to members of the general public as set forth in 40 CFR Part 190 "Environmental Radiation Protection Standards for Nuclear Power Operations," and are therefore considered to be of insignificant consequence to the health and safety of the public.

Beginning with October and lasting through December 1982 we plan to take monthly samples of oysters from the sampling locations at Kenwood Beach and Camp Conoy. The samples will be analyzed for complete gamma spectrum to maintain a close watch on environmental radioactivity levels in the shellfish.

Very truly yours,



Gary R. Fuhrman, Director
Environmental Studies & Monitoring

GRF:eml

cc: Director
Office of Nuclear Reactor Regulation
Washington, DC 20555 (17 copies)

Dr. Steven M. Long
State of Maryland

Mr. R. E. Architzel
NRC Resident Inspector
Calvert Cliffs