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CALVERT CLIFFS NUCLEAR POWER PLANT DEPARTMENT

December 27, 1989

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
Fire Suppression Water System Special Report
Technical Specification 3.7.11.1.a

Gentlemen:

Per the requirement of Technical Specification 3.7.11.1.a, the Baltimore Gas and Electric Company hereby submits the following Special Report concerning an inoperable Diesel Fire Pump.

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

Very truly yours,

LBR/JMO/CRS/bjd

Attachment

cc: D. A. Brune, Esquire
J. E. Silberg, Esquire
R. A. Capra, NRC
S. A. McNeil, NRC
W. T. Russell, NRC
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ATTACHMENT (1)

FIRE SUPPRESSION WATER SYSTEM SPECIAL REPORT

BACKGROUND

On November 28, 1989 while reviewing the results of Surveillance Test STP 034-0, evidence of sediment in Number 11 and 21 fuel oil storage tanks was found. This discovery led to both fuel oil storage tanks being declared inoperable while further information on the sediment and an action plan to remove it were developed. As a result of this action, the diesel fire pump was also declared inoperable per Technical Specification 4.7.11.1.2.b. The associated action statement from Technical Specification 3.7.11.1(a) requires the inoperable pump to be restored within 7 days or to then submit a Special Report to the staff within 30 days. This letter satisfies the requirements of a Special Report. No special compensatory measures are required by this Technical Specification.

On December 8, 1989, after number 21 fuel oil storage tank was drained, cleaned, and refilled, the fuel oil system and the diesel driven fire pump were declared operable.

EFFECT ON UNIT OPERATION

Calvert Cliffs has two fire pumps rated at 2500 gpm @ 125 psi each. One pump has an electric motor driver and the other has a diesel driver. The diesel driven fire pump is supplied by a fuel oil day tank located within the fire pump house. The day tank is filled directly from the fuel oil storage tanks. Per the Technical Specification, the day tank must have at least 174 gallons of fuel (4.7.11.1.2.a.1). This level was verified (in fact a considerable excess of 174 gallons is kept in the tank). A sample of the day tank fuel was taken and found not to contain the sediment. Therefore, the diesel fire pump was actually operational since there was a level of fuel in the day tank in excess of that required by the Technical Specifications. In addition, two 1500 gpm fire pumps are available from a fire loop outside the protected area. This system could have been connected to the plant system by simply opening one normally closed isolation valve.

The water supply and pumping requirements are designed based on a two hour flow of the greatest demand plus hose streams (Appendix A to B.T.P. APCSB 9.5-1 D.2.d). The diesel fire pump would have been available if needed for the worse case design basis demand as well as any demand of a lesser duration. Additionally, laboratory analysis of the sediment visually identified it as normal bottom sediment and found that a five micron filter removes all of it. The analysis concluded that it consisted of dissolved metal material from normal degradation of the tank lining, dead biological matter from the annual use of biocide and normal fuel by-products from the effects of temperature changes on the fuel. Therefore, the sediment in the fuel oil storage tanks did not have an effect on the safe operation of either unit.

TASKS TO ASSURE FUTURE COMPLIANCE

Existing surveillance tests detected the sediment build-up in the fuel oil storage tanks. The tanks were drained, cleaned, and refilled. The sediment levels were then within the acceptance criteria of Table 1 of ASTM 0975-74. Future compliance can be assured with no changes to the current surveillance test program.