VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

May 29, 1991

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Serial No. 91-261
NL/RPC
Docket Nos. 50-280
50-281
License Nos. DPR-32
DPR-37

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
FITNESS FOR DUTY PROGRAM
NEGATIVE SAMPLE VERIFICATION RESULTS

Pursuant to 10 CFR 26, Appendix A, Subpart B, §2.8, Virginia Electric and Power Company has conducted an investigation concerning the results of further testing of a sample initially screened as negative. On April 3, 1991, pre-access testing was conducted at our onsite laboratory for a sample with negative results. Subsequently, the sample was included in a batch of negative samples sent to our Department of Health and Human Services (HHS) certified laboratory as part of the program requirement to confirm results on 10% of those samples which are initially screened with negative results. The HHS certified laboratory had positive test results for Phenobarbital in both its initial screening and gas chromatography/mass spectrometry processes on this sample. Our onsite testing facility was notified of these results on April 8, 1991. Attachment 1 contains a summary of our investigation. With regard to the individual whose sample was identified as a false negative, the case was dispositioned according to our FFD program following review by a Medical Review Officer.

Should you have further questions, please contact us.

Very truly yours,

W. L. Stewart
Senior Vice President - Nuclear

Attachment

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cc: U. S. Nuclear Regulatory Commission
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Mr. W. E. Holland
NRC Senior Resident Inspector
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Mr. L. L. Bush
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ATTACHMENT 1

INVESTIGATION RESULTS

INVESTIGATION RESULTS

The vendor for our onsite Fitness for Duty (FFD) testing facility was instructed to determine the cause of the negative result on the sample which was later identified as positive for Phenobarbital at our HHS certified laboratory. During this investigation, the reagent manufacturer was contacted to confirm the preparation methods used in the specific examination process performed on this sample. The following facts were established during the investigation:

1. The EMIT low calibrator A contains a concentration of secobarbital which is used as a reference for distinguishing negative from positive samples.

2. A sample that gives a change in absorbance (ΔA) value lower than the low calibrator value is interpreted as negative. Therefore, the result would be that the sample does not contain barbiturates or they are present in concentrations that are not detected by this type of assay.

3. The proportions used for the sample, reagents, and buffer were verified to be correct. In its screening operations, the vendor for our onsite FFD testing facility uses procedures approved by the reagent manufacturer. The reagents' dilutions and other machine settings are obtained from the manufacturer's protocol.

4. No technical or procedural errors occurred in the makeup of reagents or operation of equipment which would cause this false negative result.

5. The success rate for this screening process has been generically determined to be 99% in performance tests. The 1% balance that fails is due to the low sensitivity of the assays to Phenobarbital.

We have determined that this false negative result cannot be attributed to an error by the onsite laboratory in preparation of the sample or operation of the equipment. It is our conclusion that this false negative result falls into the category of the generic 1% expected failure rate due to the low sensitivity of the screening assays to Phenobarbital. Based on these determinations, no corrective actions are required.