Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

CNL-18-033

April 25, 2018

10 CFR 26.11
10 CFR 26.168
10 CFR 26.719(c)

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Browns Ferry Nuclear Plant, Units 1, 2, and 3
Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68
NRC Docket Nos. 50-259, 50-260, and 50-296

Sequoyah Nuclear Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-77 and DPR-79
NRC Docket Nos. 50-327 and 50-328

Watts Bar Nuclear Plant, Unit 1 and 2
Facility Operating License No. NPF-90 and NPF-96
NRC Docket No. 50-390 and 50-391

Subject: **Report of Drug Testing Error In Accordance With 10 CFR 26.719(c)(1)**

In accordance with the requirements of 10 CFR 26.719(c)(1), Tennessee Valley Authority (TVA) is providing the details of testing errors discovered in the performance of testing at a Department of Health and Human Services (HHS) certified laboratory. TVA completed an investigation of a testing error at the HHS-certified laboratory on March 28, 2018. The enclosure to this letter provides information concerning the unsatisfactory performance test conducted for TVA by its HHS-certified laboratory.

There are no new regulatory commitments contained in this letter. If you have any questions concerning this matter, please contact Dr. Brenda Sowter at 423-208-5058.

Respectfully,

J. W. Shea
Digitally signed by J. W. Shea
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Joseph W. Shea
Vice President - Nuclear Regulatory Affairs and Support Services

Enclosure

cc: See Page 2

Enclosure

cc: See Page 2

Enclosure: 10 CFR 26.719(c)(1) Report Of Testing Errors For Specimen Identification No. 2035203664

cc: Clinical Reference Laboratory
8433 Quivira Road
Lenexa, KS 66214

NRC Regional Administrator - Region II
NRC Senior Resident Inspector – Browns Ferry Nuclear Plant
NRC Senior Resident Inspector – Sequoyah Nuclear Plant
NRC Senior Resident Inspector – Watts Bar Nuclear Plant

ENCLOSURE

TENNESSEE VALLEY AUTHORITY

10 CFR 26.719(c)(1) Report Of Testing Errors
For Specimen Identification No. 2035203664

Description of the Incident

On October 31, 2017, in accordance with 10 CFR 26.168 "Blind performance testing," Tennessee Valley Authority (TVA) submitted a blind performance specimen (Custody and Control Form (CCF) specimen ID 2035203664) to Health and Human Services (HHS) certified Clinical Reference Laboratory (CRL) for testing as a random urine specimen. The blind specimen was provided by ElSohly Laboratory and certified as an adulterated sample with nitrite at a concentration of 951 mcg/ml. CRL received specimen ID 2035203664 on November 3, 2017.

On November 3, 2017, the specimen test results from CRL indicated a general oxidant concentration of 745 mcg/ml. This is a positive result for general oxidants at the 200 mcg/ml cutoff. A second aliquot also tested positive with a general oxidant concentration of 744 mcg/ml. The sample was then screened at the 500 mcg/ml cutoff and was positive with a general oxidant concentration of 691 mcg/ml. The sample was negative for all other analytes.

On November 7, 2017, CRL informed TVA that the ion chromatograph that performs oxidant confirmation testing was out of service. CRL requested permission to send specimen ID 2035203664 to another HHS certified Laboratory (Quest Diagnostics in Tucker, Georgia) for confirmation testing. TVA approved the CRL request to send specimen ID 2035203664 to Quest Diagnostics for confirmation testing.

On November 7, 2017, CRL shipped the specimen ID 2035203664 to Quest Diagnostic for confirmation testing. The specimen was received by Quest on November 8, 2017. Quest obtained an initial general oxidant result of 1,483 mcg/ml. The sample was then screened using a nitrite specific test. The nitrite specific test result indicated the nitrite concentration was 515 mcg/ml. The confirmatory result for nitrite using ion chromatography was 497 mcg/ml. The confirmatory result was less than 500 mcg/ml, which is the cutoff for an adulterated specimen. The confirmatory result of INVALID was received by CRL on November 30, 2017.

The sample results were reviewed, certified and released to TVA by CRL on November 30, 2017.

On December 18, 2017, the TVA Medical Review Officer notified CRL that specimen ID 2035203664 was from a blind pool that had an expected quantitative value for nitrite in the 900 mcg/ml range and was expected to be an adulterated specimen.

On January 9, 2018, CRL provided the results of their investigation to TVA. CRL concluded that the lower than expected result obtained at Quest three weeks later was due to sample degradation over time (i.e., three week delay in testing). Following a review of the CRL investigation report, TVA noted that the CRL report did not include the date that the sample was tested at Quest. Without this information, CRL's conclusion was not supported by the facts as documented in the CRL investigation report. Therefore, TVA requested that specimen ID 2035203664 be sent to an independent third party laboratory for testing. Specimen ID 2035203664 was sent to a third laboratory (MedTox) for testing on March 2, 2018. The test results from MedTox indicated a nitrite concentration of 723 mcg/ml.

Conclusion:

Because the nitrite specific screening result at CRL and MedTox were consistent with the expected results for the blind specimen, TVA has determined that the testing error occurred at Quest Diagnostics.

This issue has been entered into TVA's Corrective Action Program.

The following corrective actions have been identified:

- CRL will not use Quest Diagnostics as the backup laboratory for TVA.
- TVA is tracking the replacement of CRL's ion chromatography instrument.