UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

June 05, 2013

Docket Nos.	License Nos.	Control Nos.
03003572	01-06113-04	580457
03009944	41-08165-08	580463
03017797	41-06832-06	580461
03032822	01-25207-01	580466
03032925	41-25219-01	580467
03033122	16-25243-01	580460
03033440	01-25284-01	580458
03035695	41-08165-18	580464

J. W. Shea
Vice President, Nuclear Licensing
Tennessee Valley Authority
1101 Market Street, LP 3D-C
Chattanooga, TN 37402-2801

SUBJECT: TENNESSEE VALLEY AUTHORITY, REQUEST FOR ADDITIONAL INFORMATION CONCERNING LETTER DATED APRIL 11, 2013, CONTROL NOS. 580457, 580458, 580460, 580461, 580463, 580466, 580467, AND 580464

Dear Mr. Shea:

This is in reference to your letter dated April 11, 2013, informing the Nuclear Regulatory Commission of changes to the TVA dosimetry program for Nuclear Regulatory Commission License Nos. 01-06113-04, 01-25207-01, 01-25284-01,16-25243-01, 41-06832-06, 41-08165-08, 41-08165-18, and 41-25219-01. In your letter you stated that beginning January 1, 2013, with the exception of personnel involved in industrial radiography activities, the exchange frequency for monitored individuals was revised to six months. You consider the revision adequate based on the radiation safety procedures implemented at licensed facilities to monitor external exposures with survey instruments or area monitors when activities with the greatest potential for significant external exposures are performed. Based upon our review of your letter, additional information will be needed to support continued use of the dosimetry program changes:

1. You indicated that the optically-stimulated luminescent (OSL) dosimeters will be used on a six-month exchange frequency. We note that dosimeters (including OSLs) may lose information over time, and would not find a six-month interval appropriate if such information loss results in reported doses being less than actual doses received. For the

OSL dosimeters to be used, please confirm the NVLAP accreditation includes the proposed exchange interval, and ensures that reported doses are unaffected throughout the six-month reporting period.

2. You state that the external dose monitoring results have demonstrated the effectiveness of the procedures in limiting occupational external dose. For the purpose of changing the monitoring frequency for the licenses authorizing use of fixed gauges and service provider activities, a prospective evaluation should be performed for each type of license on the doses workers could receive while engaged in licensed activities, including non-routine maintenance activities or activities where there is a potential for higher dose rates.

   The guidance shown in Appendix J, NUREG-1556, Volume 4, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Fixed Gauge Licensees," and in Appendix L, NUREG-1556, Volume 18, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Service Provider Licensees" may be helpful in determining the basis for the dosimetry program changes. The prospective evaluations should include a dosimetry evaluation (for fixed gauges, a dose calculation as shown in Table J.1 of the NUREG document), the highest annual whole body exposures for the last five years, and a trend analysis of actual exposures to those individuals involved in each activity. Please do not identify the person's name, only the year, the highest annual whole body exposure recorded, and the respective license number. For the trend analysis, you may provide a summary of the dose distribution for the number of monitored personnel.

3. In addition, for each licensed activity please confirm that the six-month exchange frequency will be evaluated at the time of the annual program review in accordance with 10 CFR 20.1101(c), to ensure this practice is effective and personnel exposures are maintained ALARA.

4. Our records show the following mailing addresses for the licenses identified above.

   For License No. 41-08165-08, the mailing address is listed as:
   Tennessee Valley Authority
   Chief Nuclear Officer and Executive Vice President
   TVA Nuclear
   1101 Market Street, LP 6A-C
   Chattanooga, TN 37402-2801

   For License No. 01-25284-01, the mailing address is listed as:
   Tennessee Valley Authority
   VP, Environmental Science & Resource
   P.O. Box 1010
   Muscle Shoals, AL 35662-1010

For License No. 01-06113-04, the mailing address is listed as:
Tennessee Valley Authority
TVA Nuclear
LP 3D-C
1101 Market Street,
Chattanooga, TN 37402-2801

To allow proper receipt of NRC correspondence by you and the Radiation Safety Officers listed on the licenses, please let us know whether these addresses are correct or provide the most current address for each license.

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Med, Ind, & Academic Uses;** then **Licensee Toolkits, see our toolkit index page.** You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays).

We will continue our review upon receipt of this information. Please reply to my attention within 30 calendar days from the date of this letter at the Region I Office, and refer to Mail Control Nos. 580457, 580458, 580460, 580461, 580463, 580464, 580466, and 580467. If you have any technical questions regarding this matter, please call Craig Gordon regarding the radiography and fixed gauge licenses at (610) 337-5216, Kathy Modes regarding the service provider licenses at (610) 337-5251, or Betsy Ullrich for the research and development license at (610) 337-5040.

The NRC's Safety Culture Policy Statement became effective in June 2011. While a policy statement and not a regulation, it sets forth the agency's *expectations* for individuals and organizations to establish and maintain a positive safety culture. You can access the policy statement and supporting material that may benefit your organization on NRC's safety culture Web site at http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html. We strongly encourage you to review this material and adapt it to your particular needs in order to develop and maintain a positive safety culture as you engage in NRC-regulated activities.

Sincerely,

Original signed by Blake D. Welling

Blake D. Welling, Chief
Materials Security & Industrial Branch
Division of Nuclear Materials Safety

cc: James B. Colagross, Radiation Safety Officer
Todd Kirk, Radiation Safety Officer

For License No. 01-06113-04, the mailing address is listed as:
Tennessee Valley Authority
TVA Nuclear
LP 3D-C
1101 Market Street,
Chattanooga, TN 37402-2801

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Sincerely,

/ RA /

Blake D. Welling, Chief
Materials Security & Industrial Branch
Division of Nuclear Materials Safety

cc: James B. Colagross, Radiation Safety Officer
Todd Kirk, Radiation Safety Officer

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