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

April 11, 2013

Licensing Assistance Team  
Division of Nuclear Materials Safety  
U.S. Nuclear Regulatory Commission, Region I  
2100 Renaissance Blvd  
King of Prussia, Pennsylvania 19406

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10 CFR 30.6

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03033440

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REC'D 10415 13PM 10/29

Tennessee Valley Authority  
Material 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  
Docket Nos. 030-03572, 030-32822, 030-33440, 030-33122, 030-17797, 030-  
09944, 030-35695, and 030-32925

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Subject: **TENNESSEE VALLEY AUTHORITY'S BY-PRODUCT MATERIAL LICENSES**

The purpose of this letter is to inform the Nuclear Regulatory Commission (NRC) of the Tennessee Valley Authority's (TVA's) transition from thermoluminescent dosimeters (TLD) to optically stimulated luminescence (OSL) dosimeters beginning on January 1, 2013. The license applications for the current TVA materials licenses state that TLDs will be used to monitor occupational external doses as required by 10 CR 20.1502.

The OSL dosimeters are NVLAP-accredited and will be processed by a NVLAP-accredited entity. The OSL dosimeters will be exchanged on a six month frequency for all monitored individuals except for individuals conducting radiography (e.g., radiographers and radiographer's assistants). The OSL dosimeters for individuals conducting radiography will be exchanged quarterly as required by 10 CFR 34.47(a)(3).

The six month exchange frequency for all other monitored individuals except radiographers and radiographer's assistants is considered 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. For example, procedures at the Western Area Radiological Laboratory (NRC License No. 01-06113-04) require the use of survey instruments to measure dose rates prior to entering the irradiator exposure room and during the conduct of related activities. Area radiation monitors are also used to monitor and set to alarm when dose rates exceed specified limits in the area.

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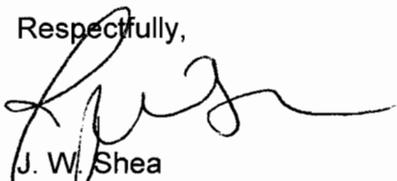
Procedures at the fossil fuel plants that use fixed gauges (License Nos. 01-25207-01, 16-25243-01, and 41-25219-01) require that radiation safety personnel be present and conduct surveys prior to, during, and after any non-routine maintenance activities.

The effectiveness of these procedures in limiting occupational external doses so that doses do not exceed regulatory limits is demonstrated by external dose monitoring results. The TLD results obtained over the last 10 years indicate that the maximum quarterly dose received by monitored TVA personnel has not exceeded 50 mrem and the maximum annual dose has not exceeded 100 mrem.

In the future, statements describing the monitoring of individual external doses contained in license applications will state that NVLAP-accredited dosimeters (film badge, TLD, OSL, etc.) will be processed by a NVLAP-accredited entity. NVLAP-accredited dosimeters will be exchanged on a semi-annual basis for all monitored individuals except those individuals conducting radiography (e.g., radiographers and radiographer's assistants). Individuals conducting radiography will exchange their OSL dosimeters on a quarterly basis.

If you have any questions regarding this letter, please contact Lee Miller at (423) 751-3197.

Respectfully,



J. W. Shea  
Vice President, Nuclear Licensing

cc: NRC Document Control Desk

This is to acknowledge the receipt of your letter/application dated

04-11-13, and to inform you that the initial processing which includes an administrative review has been performed. 41-25219-01

*Amend:* 41-06832-06, 41-08165-08, 41-08165-18

There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved. 580463,

Your action has been assigned **Mail Control Number** 580461, 580464,  
When calling to inquire about this action, please refer to this control number.  
You may call us on (610) 337-5398, or 337-5260. 580467

NRC FORM 532 (RI)  
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Sincerely,  
Licensing Assistance Team Leader