



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

November 22, 2010

Docket No. 03034258  
Control No. 573643

License No. 41-25370-01

R. M. Krich  
Vice President , Nuclear Licensing  
Tennessee Valley Authority  
1101 Market Street  
Chattanooga, TN 37402-2801

**SUBJECT: TENNESSEE VALLEY AUTHORITY, REQUEST FOR ADDITIONAL  
INFORMATION CONCERNING APPLICATION FOR AMENDMENT TO  
LICENSE, CONTROL NO. 573643**

Dear Mr. Krich:

This is in reference to your letter dated October 1, 2010 requesting to amend Nuclear Regulatory Commission License No. 41-25370-01.

We have completed a preliminary review of your application for termination and have determined that additional information is needed as follows:

1. It is not clear from your response to RAI 2 that you are considering all the facilities affected previously under the current license or those licenses previously consolidated into the current license. You refer to records for the burial site and fertilizer laboratory but did not specifically address each site identified in RAI 6. Please provide additional records for the other areas of use.
2. Although you have provided some information related to records for the facilities identified in RAI 6 it is not always in sufficient detail or the surveys may not include sufficient details to determine their suitability for release. When you indicate no records were found and you therefore believe that no radioactive material was used at a facility you must provide additional information to characterize the extent of your search or conduct additional surveys to provide assurance to support your conclusions.

Specifically RAI 6.A.,B.,6.E.,6.F.,6G and RAI 9 should include a description of the extent of the search for information conducted. This could include such information as order and receipt record reviews and interviews of personnel.

Surveys for the following areas are not of sufficient detail to conclusively release the areas without additional information:

In response to RAI 6.D. the survey record indicates some contamination in isolated spots and a recount survey is provided. No explanation is provided to clarify if this was just a recount of the same smears or was additional surveying conducted to verify other contamination does not exist?

In response to RAI 6.I. the survey information provided appears to only be for C-14 and the record indicates this is the Old Medical Building. Is the Old Medical Building the same as laboratories 46 and 47? What about the presence of some of the other long lived byproduct materials? You will need survey data to support the greenhouse release if byproduct materials were used there. Please provide additional information on the greenhouse.

3. In response to RAI 7 the tree study information is incomplete. The first survey provided appears to be for just the associated equipment for the experiments. The second survey record does not contain enough information to determine the extent of the survey that was performed. You may need to resurvey the areas potentially impacted by the tree studies. It is not clear from the information provided that soil samples were taken or the details of the experiment such that the potential for contamination may be assessed. The general description of the protocol indicates this was only a one week experiment with 2 millicuries of C-14 but one of the survey records indicates the area was restricted from 8/94-10/96. Please provide additional information.
4. In response to RAI 8 you have provided additional survey information on your current facility but have not provided a characterization summary of what materials have been used and at which locations within the facility. Please provide this information.

Current NRC regulations and guidance are included on the NRC's website at [www.nrc.gov](http://www.nrc.gov); select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material; Regulations, Guidance, and Communications**. 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 7:00 a.m. to 6:30 p.m. EST, Monday through Friday (except Federal holidays).

We will continue our review upon receipt of this information. Please reply to my attention at the Region I Office and refer to Mail Control No. 573643. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5303.

If we do not receive a reply from you within 30 calendar days from the date of this letter, we will assume that you do not wish to pursue your application.

Sincerely,

***Original signed by Thomas K. Thompson***

Thomas K. Thompson  
Senior Health Physicist  
Commercial and R&D Branch  
Division of Nuclear Materials Safety

cc:  
Floyd J. Spivey, Radiation Safety Officer

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**SUNSI Review Complete: TThompson**

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