



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

June 9, 2010

Docket No. 03033440
Control No. 144561

License No. 01-25284-01

R. M. Krich
Vice President Nuclear Licensing
Tennessee Valley Authority
VP, Energy Research & Technology Applications
P.O. Box 1010
Muscle Shoals, AL 35662-1010

SUBJECT: TENNESSEE VALLEY AUTHORITY, REQUEST FOR ADDITIONAL
INFORMATION CONCERNING APPLICATION FOR RENEWAL OF LICENSE,
CONTROL NO. 144561

Dear Mr. Krich:

This is in reference to your application dated March 30, 2010 requesting to renew Nuclear Regulatory Commission License No. 01-25284-01. In order to continue our review, we need the following additional information:

1. Please provide a complete and up-to-date renewal application, including your financial assurance submission, as requested in the NRC Letter dated March 2, 2010. During our review, we noted that too many outdated documents were referenced and that there have been significant changes in regulatory requirements. Please refer to NUREG 1556, Vol. 18, *Consolidated Guidance About Materials Licenses, Program-Specific Guidance About Service Provider Licenses*, November 2000. For the financial assurance submission, please refer to NUREG 1757, Vol. 3, *Consolidated NMSS Decommissioning Guidance, Financial Assurance, Recordkeeping, and Timeliness*, September 2003.

The website links for the above mentioned references are:

<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v18/>
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1757/v3/>.

2. During our review, we noted that the license name changed from VP, Energy Research & Technology Applications to VP, Environmental Science & Resources. However, it was not clear whether a transfer of ownership or control had taken place. Please clearly specify if a transfer of ownership or control had taken place.
3. Condition 6.F of your license authorizes "transplutronics" and lists a total possession limit of 1 millicurie. We need to more clearly define the radionuclides in your possession, and thus we need you to identify the specific byproduct materials for which you are requesting authorization, and the amounts requested. Due to the nature of the material that you possess, you may want to specify the radionuclides and their respective quantities by specifying a range of atomic numbers, with maximum quantities for each radionuclide and the total cumulative quantity. For example, your request could take the

form: Any byproduct material with atomic numbers 84 through 96, and specify the quantity per radionuclide and the total cumulative quantity. For more information, refer to Section 8.5.1 of NUREG 1556, Vol. 11, *Consolidated Guidance About Materials Licenses, Program-Specific Guidance About Licenses of Broad Scope*, April 1999.

4. Please do not submit any personal privacy information (PII).

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material**; then **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 the Region I Office and refer to Mail Control No. 144561. If you have any technical questions regarding this deficiency letter, please call Laurie Kauffman at (610) 337-5323.

In order to continue prompt review of your application, we request that you submit your response to this letter within 30 calendar days from the date of this letter.

Sincerely,

Original signed by Mark Roberts
For

Judith A. Joustra, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

cc:

Kevin E. Casey, Senior Project Manager
James B. Colagross, Radiation Safety Officer

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