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

March 21, 2008

Docket No. 030-13022 License No. 44-00728-13
Control No. 141586

Frances E. Carr, Ph.D.
Vice President for Research and Dean of Graduate Studies
University of Vermont
c/o Radiation Safety Office
004 Rowell Building
106 Carrigan Drive
Burlington, VT 05405

SUBJECT: UNIVERSITY OF VERMONT, REQUEST FOR ADDITIONAL INFORMATION CONCERNING FINANCIAL ASSURANCE DOCUMENTS, CONTROL NO. 141586

Dear Dr. Carr:

During a recent audit, deficiencies were identified in the financial assurance instrument provided for decommissioning of Nuclear Regulatory Commission License No. 44-00728-13.

Based on a review of our files, your current financial assurance is provided by the following:

- The Decommissioning Funding Plan dated February 7, 2004, with a cost estimate in the amount of $393,686. Because this cost estimate was less than the amount of $750,000 financial assurance instrument provided in 1990, you elected to maintain the larger amount of financial assurance instead of providing a new financial assurance instrument.
- the Letter Amendment to the Trust Agreement, dated February 22, 1994
- the Certification of Financial Assurance, dated April 20, 2005 [ML051440177]
- The Trust Agreement dated February 1, 1994, in the amount of $750,000
- Schedule C to the Trust Agreement, attached to memorandum dated February 7, 2003 [ML030440164]
- First Amendment to the Trust Agreement signed April 18, 2005, and revised schedules A and B, enclosed with the Certification of Financial Assurance dated April 20, 2005. [ML051440177] The amount of financial assurance was increased to $1,125,000.

Based on the types and quantities of unsealed materials authorized by Amendment No. 14 of the above-listed license, a decommissioning funding plan (DFP) is required. The tables below show one method to determine this. Table 1 shows that a DFP is required for the unsealed materials on the license, and Table 2 shows that financial assurance (FA) is not required for the sealed source you are authorized to possess.

Table 1: 10 CFR 30.35, byproduct material (BPM), unsealed materials

Radionuclide authorized in unsealed form	Quantity authorized	Quantity requiring FA	Fraction
Any BPM 1-83	300 millicuries	0.01 millicurie (Most restrictive radionuclide from 10 CFR 30, Appendix B)	30,000
Any BPM > 83	1 millicurie	0.01 millicurie (Most restrictive radionuclide from 10 CFR 30, Appendix B)	100
hydrogen 3	1000 millicuries	1000 millicuries	1
americium 241	5 millicuries	0.01 millicurie	500
If the sum of fractions is ≤ 1, no FA is required. > 1 but ≤ 10, $225,000 30.35(d) table amount is required. > 10 but ≤100, $1,125,000 30.35(d) table amount is required. > 100, a DFP is required.			30,601 DFP is required

Table 2: 10 CFR 30.35, byproduct material (BPM), sealed materials

Radionuclide authorized in sealed form	Quantity authorized	Quantity requiring FA	Fraction
cobalt 60	3 curies	10,000 curies	0.0003
If the sum of fractions is ≤ 1, no FA is required. > 1 but ≤ 100, $113,000 30.35(d) table amount is required. > 100, a DFP is required.			0.0003 no FA is required

Our audit identified the following issues related to your financial assurance documents:

1. In accordance with 10 CFR 30.35(e), the cost estimate for each DFP must be adjusted at intervals not to exceed 3 years. Although we note that the actual amount of financial assurance provided exceeds the amount of the 1994 cost estimate, the cost estimate must be adjusted to account for current labor rates, disposal costs, etc. Please provide the adjusted cost estimate (and revised DFP if applicable) to the NRC. If the new cost estimate exceeds the current amount of financial assurance provided, a revised financial assurance instrument will be required. If you must obtain a new financial assurance instrument, you should submit the revised cost estimate (and DFP) for review to the

NRC to be sure that the new cost estimate is acceptable, prior to obtaining a new instrument.

Current guidance for the development of an DFP, including the cost estimate, may be found in Appendix A.3 "Decommissioning Funding Plans" of NUREG-1757, "Consolidated NMSS Decommissioning Guidance", Volume 3, "Financial Assurance, Recordkeeping, and Timeliness", Part II, "Financial Assurance Overview" (NUREG-1757, Vol. 3) issued September 2003.

Please note that you may also provide a new financial assurance instrument in a lesser amount, so long as it is at least the amount of the new cost estimate. In addition, you could amend your license to reduce the types and quantities of materials, reducing or possibly eliminating the need to provide financial assurance.

2. The Certification of Financial Assurance dated April 20, 2005 [ML051440177] does not contain all the information required by our current guidance in NUREG-1757, Vol. 3, issued in September 2003. Specifically, it does not list each separate byproduct material for which financial assurance is required to be provided, by type and amount for of each radionuclide. Guidance in completing a Certification of Financial Assurance is contained section A.2.5 of NUREG-1757, Volume 3, "Consolidated NMSS Decommissioning Guidance, Financial Assurance, Recordkeeping, and Timeliness." The format for the certification should closely follow the model in section A.2.4 (enclosed) of NUREG-1757. Please provide an updated Certification of Financial Assurance.

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 8:00 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. 141586. If you have any technical questions regarding this deficiency letter, please call me at (610) 337-5040.

Sincerely,

Original signed by Elizabeth Ullrich

Betsy Ullrich
Senior Health Physicist
Commercial and R&D Branch
Division of Nuclear Materials Safety

cc:
Keddy G. Bharathan, Radiation Safety Officer

enclosure:
Model Certification of Financial Assurance

DOCUMENT NAME: C:\FileNet\ML080990725.wpd

SUNSI Review Complete: EUllrich
After declaring this document "An Official Agency Record" it **will** be released to the Public.

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