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The Reading Hospital

37-60495-04 03002960

11-7-06

and Medical Center

MS-16

Penny Lanzisera US NRC, Region I 475 Allendale Rd. King of Prussia, PA 19464

Re: Mail Control Number 139158

Dear Ms. Lanzisera,

- 1) This letter is to confirm that 23 Cs-137 brachytherapy sources were transferred to Barnwell through Bionomics, Inc. Rene Smith and I were present for the loading of the 23 sources into the lead-shielded Bionomics container. Our signatures below attest that we saw 23 sources loaded in the Bionomics, Inc. container that was sealed, on site, before removal from TRHMC for disposition at Barnwell. All 23 sources were removed from TRHMC. I suspect that it is possible that the 23 individual Cs-137 sources could have been inserted in 10 vials in the Bionomics, Inc. container (We do not remember, if, indeed, we ever knew). Bionomics, Inc. could have referred to "10 sources" transferred to Barnwell. Bionomics documents (previously submitted to you) delineate that they contracted to dispose of 23 Cs-137 sources, not 10.
- 2) The original Amersham calibration data sheets are not available from the original purchase date, which was prior to 1990. The medical physicist of record at that time, Robert Moyer, Ph.D., is, unfortunately, deceased. The sources, however, were recalibrated by comparison with one 10 mg-Ra-eq. source sent to K.& S Associates, in Tennessee, for absolute assay and AAPM-traceable validation on 10-25-90, by Robert Moyer. In addition, on 10-02-95, Rene Smith, Ph.D, validated two new 5 mg-Ra-eq. sources that were newly purchased, by comparison to the two 5 mg-Ra-eq. sources in inventory at that time. The results of those validations and totals are listed below. The total activity is at the date of calibration (original purchase). (2) 5 mg-Ra-eq. sources were purchased five years after the original 21 sources.

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(3) 25 mg-Ra-eq. sources = 187.5 \text{ mCi} = 7.11 \text{ GBq}
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(2) 20 mg-Ra-eq. sources = 100 mCi = 3.78 GBq

(4) 15 mg-Ra-eq. sources = 150 mCi = 5.68 GBq

(10) 10 mg-Ra-eq. sources = 250 mCi = 9.46 GBq

(4) 5 mg-Ra-eq. sources = 50 mCi = 1.89 GBq

Totals: (23) 295 mg-Ra-eq.

737.50 mCi 27.92 GBq

(Sources)

Sincerely,

Walter L. Robinson, M.S.,

Radiation Safety Officer, TRHMC

Rene Smith, Ph.D.

Past R.S.O., and Assistant R.S.O., TRHMC

Carl Seidl

Vice President, TRHMC