



The Schiffler Cancer Center
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21 May 09

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(304) 243-3490

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SELECT Research Nurse
Jayme Nardo, R.N.

U.S. NRC Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Re: License No. 47-05322-02

Dear US NRC:

We would like to amend our license to increase the possession limit per vial of yttrium-90 specified in section 8.F of our license. The current limit is 81 mCi per vial, but we need to change this to 100 mCi per vial to remain in compliance.

Our original value of 81 mCi was specified because that is the nominal quantity shipped by the manufacturer, Sirtex Medical, as a unit dose of 3 GBq. However, Sirtex ships that dose with a variability of $\pm 10\%$, and the dose is calibrated to 18:00 EST on the date of patient treatment. A trial dose not for patient use was sent to us by Sirtex to verify proper operation and settings on our dose calibrator. That shipment arrived at Wheeling Hospital at 08:00 EST. If the 3 GBq unit dose were prepared at the high end of the $\pm 10\%$ variability range, it could have been certified for 3.3 GBq at 18:00 on the day of treatment. Back decaying that dose by the 64.1 hour half-life of ^{90}Y to the 08:00 time of arrival at our hospital results in a decay factor of 1.115 for 10 hours prior to the certification conditions. That will result in a source activity per vial on the morning of patient treatment of:

$$3.3\text{GBq} \times 1.115 \times \frac{1000 \text{ mCi}}{37 \text{ GBq}} = 99.4 \text{ mCi}$$

If you have any questions about this amendment request, please refer to our authorized medical physicist, Dr. Wayne Butler at 304-243-3983 or e-mail him at wbutler@wheelinghospital.org.

Best regards,

Robert Coram
Senior Clinical Director

Medical Physics
304-243-3983 Fon
304-243-7110 Fax
wbutler@wheelinghospital.com

REC'D IN LAT MAY 29 2009

143767
NMSS/RGN1 MATERIALS-002

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

5/21/2009, and to inform you that the initial processing which includes an administrative review has been performed.

AMEND. 47-5322-02
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.

Your action has been assigned **Mail Control Number** 143767.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader