

1/15/07

NMSB2

Nuclear Regulatory Commission, Region 1  
Materials Licensing Section  
475 Allendale Road  
King of Prussia, PA 19406-1415  
610-337-5300

03035363

RE: Radioactive materials license number 45-25514-01

Request for amendment

Dear Sir or Madam:

This correspondence is intended to notify the NRC of a change we are making in the procedure to perform the annual accuracy on our dose calibrator. We will no longer be counting the 133Ba standard.

Should you have any questions, please contact me at 804-560-8782.

Sincerely,

NO  
Mark E. Johns, M.D.  
Radiation Safety Officer  
Cardiology of Virginia, Inc.  
1570 Early Settlers Road  
Richmond, VA 23235

RECEIVED  
REGION 1  
2007 JAN 19 AM 10:30

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NMCC/RCM MATERIALS-002

## Calibration And Quality Control of The Dose Calibrator

The following procedures will be followed in performing calibration and quality control procedures on the dose calibrator. These may be performed at more frequent intervals as determined by the RSO.

### Geometry Dependence

#### Frequency

At time of installation and following repair or replacement of the chamber or relocation of the device.

#### Acceptable Range

±10% with the types of containers used by the application.

- a) Using a syringe of the type used for routine procedures, draw up 1-10 mCi of  $^{99m}\text{TcO}_4^-$  in 0.5cc volume.
- b) "Count" the syringe in the dose calibrator in the same way that patient doses are measured.
- c) Draw an additional 0.5 cc's of water into the syringe and count as in b).
- d) Repeat the procedure until there is no less than 2.0 cc's in the syringe.
- e) Select the volume closest to that normally used for patients as the "standard" and divide the millicuries indicated by each of the other volumes into the standards to determine the volume correction factors.
- f) If any of the correction factors are greater than 1.10 or less than 0.90 make a correction table for the calibrator showing indicated activity at that volume vs. true activity at that volume.

### Accuracy

#### Frequency

At time of installation and not less than annually thereafter as well as after repair, adjustment or relocation.

#### Acceptable Range

±10% of the expected activity.

- a) Use the calibrated reference sources of  $^{57}\text{Co}$ ,  ~~$^{137}\text{Cs}$~~ , and  $^{137}\text{Cs}$  as authorized under this license for this procedure (see "sealed sources").
- b) "Count" each source at its correct setting on the calibrator, subtract the measure of background on that setting, and record the activity. Repeat this procedure for three measurements of each of the sources.
- c) Average the three readings, of each source, and divide into certified activity of the source after corrected for decay.
- d) If the results exceed 1.10 and .90 (+/-10% range) repair, recalibration or replacement must be made.

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

1/15/2007, and to inform you that the initial processing which includes an administrative review has been performed.

AMEND. 45-25514-01  
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 139882.  
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)  
(8-98)

Sincerely,  
Licensing Assistance Team Leader