

Holland Community Hospital
NUCLEAR MEDICINE

Policy and Procedure

SUBJECT	QUALITY CONTROL OF DOSE CALIBRATOR	NUMBER	PAGE
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APPROVAL	<i>[Signature]</i> DENNIS PACANOWSKI, R.T. Radiology Manager	DATE	11-21-85
APPROVAL	OWEN J. GESINK, M.D. Chairman Department of Radiology	DATE	10-2-85

1. Daily Test:

A. Zero Adjustment:

Check zero adjustment and record - if zero reads more than ± 0.2 of 0 then readjust and record new reading.

B. Background:

Check background change reading and record - investigate any background change of over $15 \mu\text{Ci}$ from one day to the next. Readjust and record automatic background subtraction if reading is more than ± 0.05 mli.

C. Voltage Check:

Check and record voltage. Call service if reading is not between 140-155.

D. Constancy Check:

Use CS^{137} AT_3 source and measure and record readings at the following settings CS^{137} , $\text{Tc}^{99\text{m}}$, Ga^{67} and Tl^{201} verify that the results are within the $\pm 5\%$ limits listed on the dose Calibrator Daily Control Form. If off by more than $\pm 5\%$ recheck and notify RSO.

2. Quarterly Test:

A. Instrument Linearity:

Follow procedure in Appendix D of Regulatory Guide 10.8 of October 1980. Use about 90 mCi of $\text{Tc}^{99\text{m}}$.

3. Yearly Test:

A. Instrument Accuracy

To be performed by consultants.

4. Test for Geometrical Variation

Follow procedure in Appendix D of Regulatory Guide 10.8 of Oct. 1980, except use 2-5 mCi $\text{Tc}^{99\text{m}}$ in place of Co^{57} .

Test for Geometrical Variation after repairs that may affect this parameter or installation of new instrument.

5. Have dose calibrator repaired when the following limits are exceeded:
Constancy $\pm 5\%$

Geometrical Variation $\pm 2\%$

Accuracy $\pm 5\%$

6. Check any new instrument for accuracy, linearity and geometric variation upon installation.

1-14-83

4-22-83

11-15-85

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