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SCHOOL OF MEDICINE

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THE EDWARD MALLINCKRODT
INSTITUTE OF RADIOLOGY
DIVISION OF RADIATION ONCOLOGY

June 7, 1982

Mr. Norman L. McElroy
RES/DFO/ORPB NL5650
United States Regulatory Commission
Washington, D.C. 20555

RE: REVIEW OF 10CFR PART 35

Dear Mr. McElroy:

I have reviewed carefully the 10 CFR Part 35 draft document and submit to you the following comments:

1) Para. 35.15, p. 36:

"Licensee" should be defined. *handled in 10.8*

2) Para. 35.15(6), p. 37:

10% is probably too tight for brachytherapy sealed sources. Suggest 15% to 20%. *agreed but still stt pending misad reporting change*

3) Para. 35.59(e), p. 52:

Add iodine-125 seeds *as - contrary to Matt's cert. suggestion*

4) Para. 35.62(e), p. 65:

Consider radiation detection device that gives audible or visible indication of radiation. *discussed. See if A Rocellein gets any comments. none as of 6.15*

5) Para. 35.630, p. 66:

Delete... radiologic; change "accredited" to "sponsored".

6) Para. 35.632(c), p. 68:

Change sentence to read... The licensee shall use the dosimetry system described in 35.630(a) to measure the output for the reference field size at each treatment distance under calibration conditions. The additional radiation measurements referenced to this calibration field size required in subsection (b)(1) above may then be made using a field instrument which is not directly traceable to the National Bureau of Standards.

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*will consider
Jim Day - no. (final consensus)
don't get into ref. site
as of moment.
Consider NCRP
stat.
Every variable, this
is just one.*

7) Para. 35.633 (b)(6), p. 70:

This paragraph in effect requires that the calibration dose rate of the cobalt-60 from which one bases the monthly decay be adjusted each year. I don't think this is appropriate. Consider the following:

The cobalt-60 unit is initially calibrated with an RCL calibrated dosimetry system. The dose rate is then corrected mathematically for physical decay each month! The following year, at the annual full calibration, the dose rate for the calibration field size is determined using the same RCL calibrated dosimetry system. The newly measured output is found to vary by, say, 1% from the previous year's calibration when properly decayed. This 1% difference is well within experimental error and I would, therefore, not want to change the reference dose rate from which I make the monthly mathematical corrections for physical decay.

*you can do as you
like as long as you
are within 10%
for midad
fig.*

I am suggesting that if the dose rate agreement with the previous full calibration value be within, say, 1% of the initial value when properly decayed then no adjustment be required.

8) Para. 35.900, p. 74:

Add American Board of Radiology in Therapeutic Radiology.

done

I hope these comments will be of use to you in formulating the published version of 10 CFR PART 35.

I thank you for the opportunity for this review and if I can be of help in the future in anyway please do not hesitate to ask.

Sincerely,

J A Purdy

James A. Purdy, Ph.D.
Chairman, AAPM
Radiation Therapy Committee

JAP:pab