



UNITED STATES DEPARTMENT OF COMMERCE  
National Bureau of Standards  
Washington, D.C. 20234

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1982 APR 22 PM 3 09

April 19, 1982

U.S. NUCLEAR REG  
COMMISSION  
NMSS MAIL SECTION

Patricia C. Vacca  
Division of Fuel Cycle and  
Material Safety  
Office of Nuclear Material Safety  
and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Dear Pat:

Enclosed are some suggestions that you may want to consider when you are reconsidering Title 10, Chapter I, Part 35. These comments are not related to the submission by the AAPM, but are intended to call attention to certain aspects of the regulations that I think can be improved by better wording.

In 35.21(a)(2)(i), the word output is apparently synonymous with exposure rate or dose rate. In 35.22(b)(5) the word output has the same meaning but also can mean a quantity related in a known manner to exposure rate or dose rate. Since it is possible that the quantity exposure may be phased out, in favor of some form of kerma, possibly air kerma, I think a more general wording would be useful, and would also make these regulations more self-consistent. *done*

The reason for changing the word "intercomparison" to "comparison" is that the former is generally used to mean a comparison between instruments of equal metrological standing. The word "comparison" is more general, applying to all kinds of instrument comparisons and calibrations. None of these comments is of major importance, but I hope that they may be of some use. *done*

Sincerely,

*Bob*

Robert Loevinger  
Dosimetry Group Leader  
Center for Radiation Research

Enclosure

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Suggested changes in Title 10, Chapter I, Part 35

35.21(a)(2)(i). Whenever spot-check measurements indicate that the exposure rate, dose rate, or a quantity related in a known manner to these rates (designated hereafter as output) differs by more than 5 percent ...

35.21(b)(1). The output <sup>+</sup>rate to an accuracy within  $\pm 3$  percent ...

35.21(d). The output rate determined in paragraph (b)(1) of this section ... for physical decay at intervals not ... *stet*

35.22(b)(4). The output <sup>+</sup>rate for one typical set of operating conditions ...

35.23(a). Full calibration measurements required by 35.21(b)(1) shall be performed ... *stet*

35.23(b). Spot-check measurements required by 35.22(b)(4) shall be performed ... may be calibrated by direct comparison with the system ... *done*

R. Loevinger  
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04/19/82