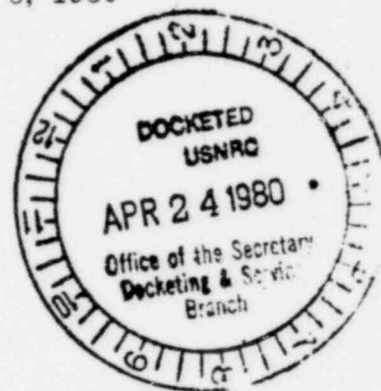


April 8, 1980

DOCKET NUMBER PR Misc. Notice  
PROPOSED RULE Reg Guide



U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Attention: Docketing and Service Branch

Dear Sirs:

The comments that follow are several days behind the cut-off date for comments on the Draft Regulatory Guide and Value/Impact Statement entitled "Measurement of Radiation Levels on Surfaces of Packages of Radioactive Material". A copy of this draft reached me only four days before the date of this letter. Because the comments that I wish to make are substantive, I am sending them to the NRC even though the comment period has expired. I hope that they will arrive in sufficient time to be considered in the final drafting of a Regulation Guide.

I am aware of the petition that was filed with the NRC by Technical Operations, Inc. I have, in fact, discussed the draft guide with representatives from that organization. It is my view that the drafters of this document failed to understand or answer the purpose of the Technical Operations petition. While any person who understands the theory and principle of measuring radioactivity will understand the proposed guide, any person who is less than completely clear on the subject will be hopelessly confused by the guide. It is true that measurement of the radiation field around a package is not absolutely accurate if a large diameter detector is used. It is not true, however, that the difference between the true reading and the measured value is of sufficient difference to justify a complicated table of values such as used in the proposed guide. Persons, such as freight handlers and airport personnel, who do not understand the table will use the lowest reading to protect themselves. In other words, any package read by an ionization chamber will immediately have a surface reading limit of 110 mr/hr rather than 200 mr/hr regardless of size.

The reading of most importance for calculating exposures at distance from the packages, such as is calculated for passenger compartments and truck cabs, is the three foot reading or Transport Index. This number is not affected by the theoretical problem that is encountered in the surface measurements.

Because this document will cause further delays and questions in the shipping of radioactive materials for medicine and research, I can only recommend that the document not be published. Methods for measuring radioactivity on surfaces are available in standard texts for those who want to make a more accurate measurement.

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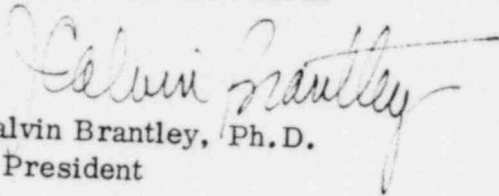
Ltr. to  
U.S. Nuclear Regulatory Commission  
Att: Docketing and Service Branch - page 2 -

April 8, 1980

For protecting the public, such accuracy is not needed.

Very truly yours,

NEW ENGLAND NUCLEAR



J. Calvin Brantley, Ph.D.  
Vice President

jcb/eet