MEDICAL PHYSICS
SHIELDING RECOMMENDATIONS

RADIATION PHYSICS
EMERGENCY CONSULTATION

PHYSICS ASSOCIATES

Lee S. Anthony, Ph.D.
Certified Health Physicist
Certified Radiologic Physicist

5346 Peters Creek Road
Roanoke, Virginia 24019
Tel: (703) 563-0165

Robert C. Hudson, M.S.
Dan L. White, A.A.S., R.T.
Lee S. Anthony, Jr., B.S., M.A.

September 23, 1985

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Docketing Inservice Branch

To Whom It May Concern:

I would like to comment briefly on the draft proposed revision 2 to Regulatory Guide 10.8 of August, 1985.

It is obvious that your staff has expended a lot of time and effort in improving this guide. They are to be highly commended for this.

However, I would like to bring two things to your attention which I believe should be studied further.

First, revision 1 to Regulatory Guide 10.8 dated October, 1980 required that the medical isotope committee/radiation safety committee include a person with special competence in radiation safety. This has often been interpreted to mean the hospital's physicist (p. 10.8-4). The proposed revision 2 (p. F-3) does not appear to specifically require such a member unless he serves as the RSO. I would strongly suggest that the revision should require that a medical physicist be a necessary member of the committee. In many cases in which the RSO is a full-time practicing physician, the RSO does not realistically have the time available to keep up with all the RSO functions, particularly with new and proposed regulations. Certainly, the medical physicist is as important to the committee as the representative of a nursing service (who is also quite appropriate).

The second problem I would point out is found in Appendix H - p.N-2. Proposed revision 2 requires that the wipe sample assay procedure should be sufficiently sensitive to detect the presence of 200 dpm/100 cm^2 of removable contamination. Most hospital survey instruments, even those with thin window GM tubes, are not sufficiently sensitive for this measurement. If you maintain the above sensitivity requirement, for all practical purposes, you are requiring the department to have a well counter. Alternatively, the wipe could be evaluated by a consultant, but if such a wipe arrives through the mail at the consultant's office 48 hours later, the wipe is of little value.

DS04
add: Ed Hill, 113055

L.S.A. (703) 389-6192

L.S.A., Jr. (703) 384-6984

R.C.H. (703) 389-4392

I would suggest that you require that each Nuclear Medicine department, however small, have a GM survey meter which, when placed in a low-background area, will indicate a background of less than 0.05 mR/hr. The requirement could then be that the wipe must not indicate more that 0.1 mR/hr on such a meter. This would provide a reasonable, realistic, safe evaluation for wipes made in the small Nuclear Medicine department, which contains no alpha emitters and no low energy beta emitters. For Nuclear Medicine departments, with a "broad" license, the 200 dpm/100 cm^2 is a very reasonable requirement.

Thank you for your review of these recommendations.

Sincerely,

Lee S. Anthony

Lee S. Anthony, Ph.D.
C.H.P.; C.R.P.

LSA/dkc