

## The University of Texas Medical Branch at Galveston



Medical School  
Graduate School of Biomedical Sciences  
School of Allied Health Sciences  
School of Nursing

Marine Biomedical Institute  
Institute for the Medical Humanities  
UTMB Hospitals at Galveston

MAR 25 P1:33

ANTHONY R. BENEDETTO, PH.D.  
ASSOCIATE PROFESSOR

March 21, 1985

NUCLEAR MEDICINE DIVISION  
RADIOLOGY DEPARTMENT  
(409) 761-2921

Secretary of the Commission  
US Nuclear Regulatory Commission  
ATTN: Docketing and Service Branch  
Washington, DC 20555

The purpose of this letter is to provide comments on Task FC 408-4, proposed Revision 2 to Regulatory Guide 10.5, "Guide for the Preparation of Applications for Type A Licenses of Broad Scope," dated February 1985.

Section 1.2: I have previously worked as a health physicist at two institutions with broad scope medical licenses, so I was surprised to read that these types of licenses are not covered under 10 CFR 33. Since medical broad scope licenses are in fact issued, perhaps a slightly expanded discussion is needed. Line 8, page 2 seems to state that broad scope human use cannot be permitted on the same broad scope license as the other types of uses, but I can interpret this to mean that a human use-only license is acceptable.

Section 7.1: I am pleased to see that you have abandoned your attempts to state the qualifications of the RSO in terms of academic degrees or board-certifications. Regardless of a person's academic or professional credentials, what really matters is that he/she has been an RSO before and has done well in that job.

Section 7.2: One of the concerns of NRC of late seems to be that upper management is not supportive of the radiation safety programs at many facilities. A contributing factor may simply be a lack of communication of problems from the RSO upward. Two mechanisms are available to solve this problem, one of which is addressed in Section 10.3. First, the RSO should be placed in the organizational structure such that he/she reports directly to upper management, without any radiation user-layers above him/her on the organizational chart (Section 10.3). Second, a member of upper management should be a member of the Radiation Safety Committee, preferably serving as its Chairman. In Army medical facilities, regulations require that the Chairman of the RSC be either the Commander or Deputy Commander of the hospital. Regardless, the Chairman of the RSC should not be a radiation

8503270415 850321  
PDR REGGD  
10.005 C

PDR

MAR 25 1985

Acknowledged by card.....

pd

DS091/  
add: Ed Hill, 11305

user ("fox watching the chicken coop"), but rather should be a member of upper management with direct access to the CEO of the institution. Additionally, the RSO should serve as the Recorder of the RSC; a radiation user should not be the Recorder (see comments above relative to the Chairman). The Recorder sets the agenda and tone of the RSC, and therefore the Recorder must have the objective, unbiased best interests of the radiation safety program at heart.

Section 10.3: Both here and in Section 7.1 you permit the appointment of a part-time or outside RSO. You must have a number of licenses in existence where this arrangement has worked well, but I am frankly appalled. A broad license implies a fluid radiation use program, with changes being made on a frequent basis. It is hard for me to imagine how a part-time or outside RSO could successfully manage a broad license. In any case, a full-time staff should be available if an other-than-full-time RSO is used. This staff should have at least one NRRPT-certified technologist. There should be a signed agreement stipulating that the RSO shall respond immediately to emergency calls, with RSO duties becoming paramount until the emergency has been resolved. The RSO should be located close enough to physically report to the scene of an emergency within a period of one hour after notification. Overall, I would prefer a full-time RSO for any broad license.

Section 11: When I was an RSO, I was told that it was acceptable to store short-lived radioactive materials for decay to background, but I was also told that my license specifically had to permit it. Although "storage for decay to background" is not in the strictest sense a method of waste disposal, it would seem reasonable to mention it as an option and stipulate that permission must be sought.

General: It would be helpful to the RSO if NRC could provide guidance on the kinds of specialized equipment which should be available to the RSO. For example, if tritium is used in large quantities, the RSO should have his own liquid scintillation counter for counting wipes. If some laboratories use many different radioisotopes, the RSO probably should have a high-resolution semiconductor detector and multichannel analyzer. For very large licenses the RSO should have multisample gamma and beta counters. If an industrial hygiene function is not available at the facility, the RSO should have instrumentation for measuring flow rates in hoods and other types of exhaust. A separate storage facility used only by the RSO may be necessary if large quantities of waste must be stored or handled pending shipment for burial. These are typically relatively high-cost

Secretary of the Commission  
Page 3  
March 21, 1985

items and it can be difficult to convince management of the need to spend these funds. The mere mention of them in a Regulatory Guide will be sufficient ammunition in most cases.

Sincerely,

*Anthony R Benedetto*

Anthony R. Benedetto, Ph.D.  
Associate Professor

ARB:kmf