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UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 19104

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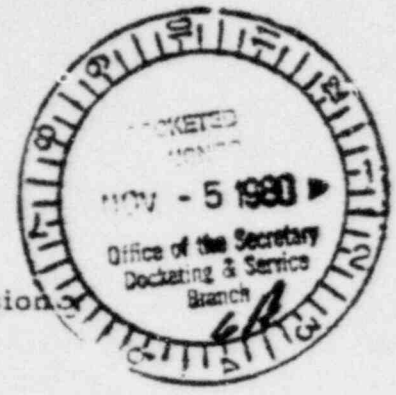
Radiation Safety Committee



October 30, 1980

Secretary of the Commission
U.S.N.R.C.
Washington, DC 20555

Atten: Docketing and Service Branch

Ref: Proposed amendments to 10CFR20 appearing in the Oct. 8, 1980 FEDERAL REGISTER.

Gentlemen:

This is comment upon proposed amendments to 10CFR20 concerning disposal of liquid scintillation media and animal carcasses containing tracer levels of 14-C and 3-H and raising sewer disposal limits for the same nuclides. These proposals have been reviewed by our Radiation Safety Committee, and we strongly favor the amendments and hope they will become effective in the very near future. We also believe that the proposed amendments could be extended in some degree with substantial benefit and without affecting radiation safety.

With regard to liquid scintillation media, we urge that the provision not be limited to 14-C and 3-H. While these two nuclides comprise a large fraction of the total activity found in scintillation media, a number of other nuclides are regularly counted this way as well. We believe the provision proposed for 3-H and 14-C could be extended to almost any beta and/or photon emitting radionuclide without affecting radiation safety. The principal other nuclides likely to be concerned, at least from biomedical research, would be 32-P, 35-S, 45-Ca, and possibly 125-I though solid crystal counting is preferred for this nuclide. If disposed of as dictated by chemical or toxicity related considerations, these materials would represent no significantly greater radiation safety impact than 14-C and 3-H. If there is concern over the higher risk for some nuclides if taken in to the body, specific nuclides could be exempted from the provision or have a lower concentration limit set.

Acknowledged by card... 11/5/80

L-4-1, 44.2

In connection with the provision for animal carcasses, a similar extension of the provision to include radionuclides other than 14-C and 3-H may also be indicated and could be most helpful. In this connection, a lower concentration limit might very reasonably be set for some radionuclides of particular concern if taken in to the body.

To summarize our comments, we:

1. Strongly favor the proposed amendments.
2. Urge that the provisions for liquid scintillation media be extended to include radionuclides other than 3-H and 14-C.
3. Suggest that the provisions for animal carcasses be extended to include radionuclides other than 3-H and 14-C.

Sincerely yours

John W. Thomas

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