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Environmental
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MASSACHUSETTS INSTITUTE OF TECHNOLOGY
MEDICAL DEPARTMENT



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May 23, 1994

DOCKET NUMBER
PROPOSED RULE PR 20
(59FR 9146)

Secretary of the Commission
US Nuclear Regulatory Commission
Washington DC 20555

Attention: Docketing and Service Branch

RE: Release of By Product Materials into Sanitary Sewerage Systems

Gentlemen:

This is in response to the request for comments on the current policy for disposal of radioactive material by release into sanitary sewerage systems. Following is our position on this issue:

(1) Form of material released: The most recent regulations restrict sewerage disposal to materials that are soluble or readily dispersible biological materials. We believe that any prior concerns for concentration of non-biological readily dispersible material are resolved by the new restriction to biological materials and are unaware of any significant problems with soluble material. We therefore recommend continuation of this allowed release form.

(2) Total quantity of material: Although these unchanged limits easily meet the needs of most licensees, it seems appropriate, given the new restriction on form of material released and the new more restrictive release concentrations, to consider relaxation of these limits for large users since reconcentration should be much less of a concern. It may even be practical to eliminate such an upper cap totally, depending only on concentration restriction with the reduced limits now in effect. We have never seen the logic in applying the same cap to a large program with thousands of users (e.g. a large university with a broad license) as is applied to a small license with only a few users.

(3) Types of limits: The present method of limitation based on an individual being exposed by ingestion of water from the sewer outfall seems to be sufficiently conservative to satisfy all needs, particularly in view of the new lower release concentrations. This is readily controllable in the workplace and is easily understood

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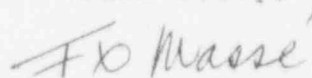
US Nuclear Regulatory Commission
May 23, 1994
Page 2

by radionuclide users. Proper adherence to concentration limits would appear to negate the need for an upper cap as mentioned in item 2 above. Elimination of the cap would greatly simplify the record-keeping in a larger program.

(4) Exemption of Patient Excreta: Continuation of this important exemption is encouraged as a significant ALARA consideration. Collection and control of patient excreta would result in the deliberate reconcentration of a significant waste stream with the potential for worker exposure, spills, and emergency issues that have been avoided through the judicious use of this exemption. The rapid dispersal of this soluble waste stream of short-lived material seems the most practical approach to this issue and we strongly recommend the continuation of the exemption in its current form.

We thank the commission for the opportunity to comment on this important issue and look forward to commenting on any proposed regulations that are forthcoming.

Yours truly,



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Director, Radiation Protection
Program

FXM/nlj