Appendix 13 cont'd

Sanitary Sewer Release Criteria

A licensee may release a maximum of **300 uCi/month** of **licensed material** into the sanitary sewer if and only if the material is **readily soluble** or is **readily dispersible biological material, in water**. The licensee **must** be ready to p**roduce** the **required criteria** for **what constitutes soluble or biologically dispersible**. Examples of solubility criteria for liquid effluents sometimes can be obtained from radioisotope vendors such as NEN, ICN, AMERSHAM, etc. Otherwise, common literature data must be used (i.e. Handbook of Chemistry and Physics - CRC Press, Lange's Handbook of Chemistry - McGraw - Hill, Water Chemistry by Snoeynik and Jenkins, Standard Methods for the Examination of Water and Wastewater - American Public Health Association - Washington, D.C.) or the solubility must be determined from actual filtration and analysis of suspended solids (ASTM Method D 1888 - 78, "Standard Test Methods for Particulate and Dissolved Matter, Solids, or Residue in Water" and the American Public Health Association Method 7110 from Standard Methods for the Examination of Water and Wastewater can be used. Citing one of these references is acceptable for solubility criteria and other reference(s) for the biological dispersible material may be cited but the reason for the reference must be produced upon request.

Sanitary sewer release amounts, although stipulated above as 300 uCi/month maximum, will be **considered on an individual basis** (from an application to use radioactive materials and the procedures that apply) by the Radiation Safety Committee. Their criteria for acceptance will be based on monthly water consumption data, of the building where the person who submits the application will be disposing of radioactive liquid wastes, and that I0CFR20.2003 "Disposal by release into sanitary sewerage" restrictions are met. The regulation so noted refers to Appendix B Table 3 of I0CFR20, which stipulates dilution factors by isotope (uCi/ml). These factors cannot be exceeded when you divided the total activity of the isotope disposed for the month (entire building) by the total water used (ml) for that building for that month. The fraction that results is additive to the other fractions for the other isotopes disposed of that month in that building and the sum cannot exceed 1. **Therefore, the dilution factor for each isotope involved cannot be exceeded nor can the additive sums of the fractions for all isotopes involved exceed 1.**