

GUIDELINES FOR THE ASSESSMENT OF RADIONUCLIDE TESTING

When assessing alpha or gamma spectrometry, determine if the method is measuring a gross count, or if individual isotopes can actually be determined. Ensure that the parameter listing accurately reflects what the method is actually measuring. If the method is actually measuring a gross count, then it is acceptable to list gross alpha activity or gross beta activity under the parameter listing.

Ensure that the method reference has an actual instrument book or text book cited. As with other test methods, the method reference should read based on.... and the instrument book or text book cited.

Appendices are not based solely on instrumentation. The definition of an appendix is a unique matrix-test method combination, and a method (in turn) is defined in terms of analytical technique and sample preparation. Therefore, if a method calls for chemical separation, distillation, or co-precipitation, etc...then each unique combination of chemical technique-instrument is a separate appendix. For example, even though both Polonium-210 and Thorium are detected by alpha spectrometry, they require a chemical separation. So, Polonium-210 and Thorium should be listed as two separate appendices - not two analytes in one appendix.

For appendices where actual radionuclides are determined and the list of analytes is extensive, a lab should list its standard list of analytes. For example, in the case of gamma spectrometry where actual radionuclides are determined, it would be more appropriate to list a standard list of analytes rather than state gamma emitters.