

New Developments in QA/QC for IMS Radionuclide Laboratories

A network of 16 IMS radionuclide laboratories support analysis of samples from IMS radionuclide stations using high resolution, high purity germanium (HPGe) gamma ray spectrometry and/or coincidence system (for Noble gas). Thirteen of these 16 CTBT IMS particulate laboratories have been certified. Since 2001, as a part of the QA/QC program for the IMS Laboratories, the PTS organizes and conducts annual Proficiency Test Exercises (PTEs). These Exercises have been a valuable tool for monitoring the quality of analytical results of certified laboratories and assuring data quality of uncertified laboratories during or in preparation of the certification process. The PTE results are used by laboratories to improve their nuclide measurement and analysis capabilities and correct non-conformances. This annual PTE offers unique opportunities for interaction on the evaluation of results between the laboratories and the PTS, and also supports the continuous improvement of the PTS evaluation methods of laboratory data. This paper describes the new developments for Radionuclide Laboratory PTEs including recently developed software tools for increasing quality and efficiency in the evaluation and reporting of PTE results.

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