

Portable NaI(Tl) gamma-ray spectrometer TC Project: RER7014	 IAEA International Atomic Energy Agency	Clarifications Dated 18 September 2024
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IAEA Response to Bidder's Questions

RFQ 642669-AMX-Portable NaI(Tl) gamma-ray spectrometer for Azerbaijan

No.	Question	IAEA Response
1	<p>Concerning Specification Section 4.1.7 "Automatic detector gain, calibration, offset and linearity corrections without use of radioactive sources ".</p> <p>Is it possible to use a reference peak position with a so-called Am-pulser? This is a very small radioactive ²⁴¹Am source mounted inside a scintillation detector.</p>	Please offer according to the minimum requirements of the Specifications.
2	<p>Concerning Specification Section 1.1 "...for in-situ measurements of gamma-ray emitting radionuclides for environmental monitoring of NORM waste and in-situ characterization of radiologically contaminated sites within the framework of the IAEA Technical Cooperation project RER7014." Additionally, Paragraph 4.1.1 states "Radionuclide identification for medical, industrial and natural (NORM) in the energy range 20 keV – 3 MeV;" and in Paragraph 4.1.11 "Provision of isotope (e.g., K, U, Th) specific data...".</p> <p>Could you please confirm that the objective is for the instrument to be able to provide "K, U, Th" assay measurements instead of or in addition to Nuclide ID (NID) for medical, industrial, etc.?</p>	The objective of the device is to provide NID for gamma emitting radionuclides typical in medical, industrial facilities, as well as NORMs. This includes the identification and measurements of K, U and Th and their decay products.
3	<p>Concerning Specification Section 4.1.1 "Radionuclide identification for medical, industrial, and natural (NORM) in the energy range 20 keV – 3 MeV; the library content can be modified by the user."</p> <p>What radionuclides would you require to be identified using the library?</p>	The default/base library should at least have information for K, U and Th, which are the target RN. Additional libraries may be required for radionuclides related to medical and industrial facilities (e.g. Tc), and the device should have an option for the user to modify this content.
4	<p>As a crystal type you specify NaI(Tl), we would however recommend using CsI. This crystal is more resilient against mechanical shocks and can deliver the same spectral resolution (resolution <7% on 662keV), therefore we would highly recommend using this crystal.</p> <p>Is the crystal type a strict limitation in this request for quotation?</p>	Please offer according to the minimum requirements of the Specifications. Suitable alternative(s) may also be considered.