



## SPECIFICATION

### Gross Alpha/beta Counting System

#### 1. Scope

This specification describes the requirements for a Gross Alpha/beta Counting System (hereinafter referred as the “Equipment”) for the Jordanian Uranium Mining Company at its facilities in Jordan (hereinafter referred as the “End-User”).

#### 2. Requirements

The Equipment to be provided by the Contractor shall meet the following functional and performance requirements:

- Radiation Counting system with options to connect detector probes Alpha – ZnS(Ag) and Beta- End window G.M detector probe;
- In built processor card and electronic circuits to provide High Voltage 0 - 1500 V or higher to the scintillation detector probe/ GM tube;
- Microcontroller design facilities to programme background, standard and sample counts;
- Option for pre-set counting times;
- Digital display of the counts up to 900000 counts or above;
- Counting option for samples on filter papers or planchets;
- Built-in parallel port or USB port for direct data printing;
- Built-in serial port (RS232 or RS485) or USB port for data transfer to PC;
- Recovery Time Residual activity in Sniff mode drops by factor of 1,000 in 30 minutes; and
- Operating Ranges - Temperature: 32° - 113°F (0° - 45° C), Humidity: 0% - 100%, non-condensing.

#### 3. Marking

The Equipment shall have all safety markings in English language.

#### 4. Packing

The Equipment, for the shipment by air to the End-User, shall be packed in accordance with international standards that are applicable for the shipment by air of this kind of Equipment.

#### 5. Quality Requirements

The Equipment shall be manufactured in accordance with the Contractor’s ISO quality assurance system or an equivalent quality assurance system.

The Contractor shall document the compliance with this quality assurance system.



## 6. Testing and Acceptance

The Equipment, prior to shipment, shall be tested for conformance of the manufacturer's performance specifications and the minimum requirements specified herein.

The Equipment, after delivery, shall be tested by the End-User to demonstrate that the performance meets the manufacturer's performance specifications and the minimum requirements specified herein as determined by the IAEA and the End-User.

The results of the testing of the Equipment shall be documented in an acceptance protocol that shall be signed by the End-User.

## 7. Deliverable Data Items

The Contractor shall provide two complete sets of operation and servicing manuals and technical drawings in the English language.