

***International Atomic Energy Agency Technical Meeting on
Quality Assurance***

for Nuclear Spectrometry Techniques

12 – 16 October 2009

**IAEA Headquarters, Vienna
and IAEA Laboratories, Seibersdorf
Austria**

ANNOUNCEMENT

BACKGROUND

Chemical measurements are increasingly applied as the basis of important decisions which are required for setting up national and international regulations in such fields as trade, law, medicine, environmental pollution monitoring etc. The commercial value of traded products depends critically on the measurements which determine the degree of quality. This requires trust in the measurements on the international level that can be achieved through introduction of uniform criteria. An area where regulation is mandatory is environmental pollution monitoring. Release of chemical compounds into the soil, the water and the air, and consequently into the human body, requires setting limits and verification of compliance with these limits through chemical measurements. Again, since pollution is often a transboundary issue (chemical pathways in the environment cross the man-made borders), decisions related to environmental pollution must be acceptable internationally. Therefore, the reliability of chemical measurements is of highest importance, and many analytical laboratories including those which apply nuclear spectrometry techniques recognised an essential role of quality.

The IAEA has recently supported the laboratories in Member States in improving analytical performance and quality of the analytical results. This support was provided under the IAEA regular budget projects and a number of regional and national Technical Cooperation projects. Some laboratories established quality management system following relevant international quality standards (e.g., ISO 17025) and received accreditation from the relevant national authorities. Most efforts in this field were focused on implementation of proper Quality Assurance/ Quality Control practices in the analytical laboratories. For sake of clarity the following definition of the terms is applied:

Quality Assurance includes planned activities designed to ensure that the Quality Control activities are being properly implemented,

Quality Control includes the operational techniques and activities that are used to fulfil the requirements for quality.

The following nuclear spectrometry techniques are of particular interest:

- X ray spectrometry
- Gamma spectrometry

- Mössbauer spectrometry
- Raman spectroscopy
- Alpha spectrometry

A Technical Meeting is organised under the IAEA project on Nuclear Spectrometry for Analytical Applications which major objective is to enhance capability of interested Member States to effectively utilize nuclear spectrometry techniques and to provide analytical services in industry, human health, agriculture and environmental pollution monitoring.

The Technical Meeting is planned to highlight, review and discuss issues related to the current status of Quality Assurance (QA) in the nuclear spectrometry laboratories. It is considered beneficial to Member States to define the requirements and resources to establish QA, to demonstrate and assess the advantages of QA in promotion and improvement of competitiveness of nuclear spectrometry techniques for a wide range of applications. Proposed subjects of discussion include:

- Ingredients of Quality Assurance
- International quality standards
- Implementation of Quality Assurance
- Evaluating measurement uncertainty
- Role and availability of Reference Materials
- Proficiency testing and interlaboratory studies
- Validation of analytical methods
- Metrological traceability of measurement results
- Quality Audits
- Significance of certification and accreditation
- Benefits/impacts of Quality Assurance for nuclear spectrometry laboratories
- Harmonization of approaches
- Role of the IAEA in promotion and establishing QA in nuclear spectrometry laboratories

OBJECTIVES

To review the current status in implementation and use of Quality Assurance in the nuclear spectrometry techniques; to assess/demonstrate the benefits and impacts of QA on improvement of reliability of chemical measurement results in order to further extend the applicability range of the analytical techniques, and to produce a meeting report (proceedings).

PARTICIPATION

A person will be eligible to participate only if nominated by the Government of an IAEA Member State (Ministry of Foreign Affairs or National Atomic Energy Authority) or by an Organisation invited to participate. Nomination for participation (Form A) should be received by the IAEA not later than **31 May 2009**. The participant should be an analytical chemist (or physicist) familiar with methodology and applications of nuclear spectrometry techniques including Quality Assurance aspects. *A contribution from the participant in the form of a short abstract covering his/her work relevant to the objectives of the meeting will be necessary for consideration for participation.*

FINANCIAL SUPPORT

As a general rule, the IAEA does not pay the costs for attendance to the meeting. However, limited funds may be made available to assist the attendance of selected participants and approved in accordance with the current Agency rules and regulations. Generally, not more than one financial

grant will be awarded to any one Member State. If Governments wish to apply for financial support on behalf of their nominees, they should address specific requests to the IAEA Scientific Secretary.

MEETING FORMAT

To facilitate proceedings, participants are invited to contribute an oral presentation on subject relevant to the scope and objectives of this meeting. Participants should submit an abstract of their proposed presentation along with their nomination. The official language of the meeting is English. No interpretation will be provided. It is expected that the meeting will start at 9:00 on Monday, 12 October 2009 and conclude by 16:00 on Friday 16 October 2009.

The outputs of discussions will be recorded for possible dissemination to Member States as an IAEA technical publication. Contributors of material to be included in the Agency proceedings are required to assign all copyrights or rights to publish to the Agency. Please complete and sign the Form B and send it to the IAEA Scientific Secretary by post or email. The authors should ensure that material they make available for possible publication by the IAEA does not include copyrighted material or other impediments for reproduction.

LOCAL ARRANGEMENTS

It is the responsibility of all participants to make their own travel arrangements to/from Austria. Detailed information on accommodation, local transport to/from the meeting venue, and other organisational details, will be sent to all designated participants well in advance of the meeting.

VISA

Designated participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria well in advance of entry. An official letter of invitation will be issued to all designated participants by the IAEA Scientific Secretary.

DEADLINES

- **31 May 2009:** Submittal of requests to the IAEA for participation and financial support close
- **30 June 2009:** Participants informed of their acceptance of participation and request for financial support.

IAEA SCIENTIFIC SECRETARY

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