

***International Atomic Energy Agency Technical Meeting on
Innovative methods for maintenance and guidelines for
modernization of nuclear instruments applied in the fields of food
and agriculture and environmental quality management***

25 -29 May 2009

IAEA Headquarters, Vienna

Austria

ANNOUNCEMENT

BACKGROUND

With their own resources or with the assistance of the IAEA, Member States are getting new technologies and knowledge for applying nuclear techniques for benefit of their people especially in the fields of food, agriculture and environmental quality management. Any application of the nuclear sciences requires measuring instruments which need to be installed, operated, calibrated and maintained. The last item (maintenance) is often a major problem for developing countries due to the lack of support from manufacturers (the local markets are small and local representatives are usually unavailable). In order to fill in the gap the IAEA has supported Member States to improve the local manpower and infrastructure. Small groups of electronics engineers/technicians and a basic infrastructure to support effective use of nuclear instruments are already available in some countries. Due to the rapid development in electronics and computer sciences new and complex nuclear instruments emerge on the market requiring continued update of the theoretical knowledge of the electronics engineers and technicians. Additional new practical skills have to be acquired by the personnel involved in operation, use and maintenance. Almost all new equipment incorporates components like microcontrollers and field programmable gate arrays (FPGA). Furthermore, due to miniaturization, replacement of components became a crucial point and requires special tools and skills.

All of these create new challenges in the field of maintenance of modern instruments mostly because the essential part of an equipment is software or preconfigured hardware. This leads to the fact that maintenance became increasingly dependent on the manufacturers. One of the possible options to reduce such problems and to help the laboratories is to apply the new methods and methodologies for keeping the equipment in working conditions, for example by using the Internet for getting immediate support and technical advice from the manufacturers or experts. In addition, old but still functional instruments can further be used effectively through the design of appropriate interfaces and software for data acquisition and computer control. The technical meeting will bring together the experts in these fields in order to discuss and review the new methodologies available for maintenance and modernization of nuclear instruments. A document to be prepared during the meeting will be used by Member States and the IAEA as a guideline in the relevant fields.

OBJECTIVES

- 1) To discuss and review the new methodologies/techniques for maintenance of nuclear measuring instruments applied in the fields of food, agriculture and environmental quality management, and to compile the guidelines for their applications
- 2) To discuss, review and assess the new methods which are available for the modernization of measuring equipment applied in the fields of food, agriculture and environmental quality management, and to prepare a document with the guidelines for their applications.

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 January 2009**. The participant should be engineers or scientists dealing with maintenance and/or modernization of measuring equipment applied in the fields of food, agriculture and environmental quality management. *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 a 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, 25th May 2009 and conclude by 16:00 on Friday 29th May 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 January 2009:** Submittal of requests to the IAEA for participation and financial support close
- **28 February 2009:** Participants informed of their acceptance of participation and request for financial support.

IAEA SCIENTIFIC SECRETARY

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