



Technical Meeting on Global Capabilities for the Production and Manufacture of Non-High Enriched Uranium Molybdenum-99 Targets

**IAEA Headquarters
Vienna, Austria**

26 to 27 May 2020

Ref. No.: EVT1803996

Information Sheet

Information

Technetium-99m (^{99m}Tc), the daughter product of molybdenum-99 (^{99}Mo), is the most commonly utilized medical radioisotope in the world – it is used for over 30 million medical diagnostic procedures annually and comprises some 80 percent of all diagnostic nuclear medicine procedures. Until recently, almost all of the ^{99}Mo consumed worldwide was produced in research, test or isotope production reactors by irradiating highly enriched uranium (HEU) targets that are subsequently processed to recover ^{99}Mo .

Following significant shortages of this medical isotope, the international community has determined that to ensure long-term security of supply, the industry must transition to full-cost recovery and move to non-HEU-based production, through conversion to low enriched uranium (LEU) targets and the use of new alternative technologies. As the ^{99}Mo industry undergoes these transitions, concerns relating to the security of supply of targets, production efficiencies, and potential price increases must be addressed.

As part of the IAEA's continuing involvement to address security of supply as well as minimizing the use of HEU in Mo-99 production, the Agency is providing a forum for discussion on target manufacturing techniques and capabilities given the identified interest of the Mo-99 community in this particular technical area.

Objective

The overall objective of the Technical Meeting is to provide a forum to discuss the current and upcoming techniques and capabilities for the manufacture of targets used in the production of ^{99}Mo . While focused on fission-based LEU targets, the meeting is also expected to cover other forms of targets used to produce ^{99}Mo , such as through neutron capture and accelerator-based methods.

Topics

The following topics will be addressed and discussed during the workshop:

- Status of existing capabilities for the manufacture of targets for ^{99}Mo production;
- Status of upcoming capabilities and/or ongoing technical R&D activities for the manufacture of targets for ^{99}Mo production;
- Status of high-assay low enriched uranium supply;
- Recommendations for future meetings.

Target Audience

The workshop is intended for individuals from IAEA Member States that are involved in efforts to manufacture non-HEU targets to produce ^{99}Mo . Participants should be representatives of the core team involved in and responsible for development and/or manufacture of targets for ^{99}Mo production, as well as other stakeholders in the ^{99}Mo community.

Working Language

The working language of the workshop will be English. No interpretation will be provided.

Application Procedures

Designations should be submitted on the attached Participation Form (Form A). Completed forms should be endorsed by the competent national authority (e.g. Ministry of Foreign Affairs or National Atomic Energy Authority) and returned through the established official channels. They must be received by the IAEA no later than **27 March 2020**. Designations received after this date or applications sent directly by

individuals or by private institutions cannot be considered. Designating Governments will be informed in due course of the names of the selected candidates and at that time full details will be given on the procedures to be followed regarding administrative and financial matters.

Accommodation

It is the responsibility of the participants to arrange their own accommodation. A list of hotels for reference and other organizational items will be sent to all designated participants approximately four weeks before the workshop.

Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made using the **Grant Application Form (Form C)** which has to be stamped, signed and submitted by the competent national authority to the IAEA together with the **Participation Form (Form A)** by **27 March 2020**.

Venue

The event will be held at the Vienna International Centre (VIC) where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page:

<http://www-pub.iaea.org/iaeaevents/GeneralInfo/Guide/VIC>.

Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

Organization

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary/Secretaries and correspondence on other matters related to the event to the Administrative Secretary.