Webinar on the First Two Months of a Nuclear Forensic Examination

Webinar Series on Nuclear Forensics in Global Nuclear Security

Organized by

The IAEA Division of Nuclear Security

15 April 2025

Time:
05:00 – 06:30 Vienna (Austria) Time
17:00 – 18:30 Vienna (Austria) Time

Duration: 1.5 hour

Information Sheet

Introduction

Nuclear forensics is the examination of nuclear or other radioactive material or of evidence contaminated with radionuclides in the context of legal proceedings under international or national law related to nuclear security. This field of specialization supports national nuclear security measures and criminal investigations by providing information on the identity, origin and history of nuclear or other radioactive material found outside of regulatory control. It uses analytical techniques to generate data in the context of a criminal investigation. Capability in this specialized field can enhance national nuclear security programmes and support the enforcement of a State's laws that prohibit the possession and use of nuclear or other radioactive material out of regulatory control.

The IAEA Nuclear Security Series (NSS) No. 2-G (Rev. 1), Nuclear Forensics in Support of Investigations, provides detailed guidance on the role of nuclear forensics in the context of investigating various types of criminal or other unauthorized acts involving nuclear or other radioactive material. It specifically describes the relevance of reporting at 24 hours, one week, and two months after sample receipt in the laboratory.

Previous webinars in this series covered the activities typically taken within 24 hours of sample receipt and within one week of sample receipt. This webinar will focus on the activities taken within the first two months of a nuclear forensic investigation. Technical and non-technical personnel interested in this webinar will gain information on developing and implementing nuclear forensic mass spectrometry capabilities within the context of a broader national nuclear forensic programme stemming from national legislation.

This will be the fourth webinar in the Webinar Series on Nuclear Forensics in Global Nuclear Security. The webinar series is designed to include an interactive and dynamic approach that encourages the audience to participate and respond in real time. Future webinars in the series will feature nuclear forensics applications in criminal investigations of material outside of regulatory control, as well as other topics.

Objectives

The objectives of the webinar are:

- To engage nuclear forensic practitioners and stakeholders in a simulated nuclear forensic investigation exercise.
- To present the IAEA's assistance programme for establishing a nuclear forensic capability supporting nuclear security.

Target Audience

This webinar is intended for the nuclear security community in Member States, including professionals working on the technical aspects of establishing and operating national nuclear forensic capabilities to support investigations involving nuclear and other radioactive material out of regulatory control. It also welcomes associated non-technical stakeholders, including but not limited to: law enforcement; prosecutors; laboratory managers; regulators; nuclear security

professionals.

Working Language(s)

English

Registration

To register for the webinar series, including the Webinar on the First Week of a Nuclear Forensic Examination, please use this link: Webinar Series Registration.

After the registration and acceptance of your participation, you will receive an electronic mail containing information on how to access the webinar by following a hyperlink to join the WebEx meeting or by calling in by phone.

You can test your ability to connect to a WebEx meeting at the following link: https://www.webex.com/test-meeting.html#. Please contact your IT department if the test fails.

For additional help regarding registration, please contact Ms Chelsea Willett, Division of Nuclear Security (Email: C.Willett@iaea.org).

Webinar Agenda

Opening remarks

Itimad Soufi, *Materials Out of Regulatory Control Section Head, Division of Nuclear Security, IAEA*

Background on nuclear forensics in support of investigations

Chelsea Willett, *Associate Nuclear Security Officer, Division of Nuclear Security, IAEA*

Focus on the first two months

Greg Brennecka, *Staff Scientist, Lawrence Livermore National Laboratory*
Emily Worsham, *Staff Scientist, Lawrence Livermore National Laboratory*

Q&A and conclusion

Andrei Apostol, *Nuclear Security Officer, Division of Nuclear Security, IAEA*