



# **Webinar on Investigative Perspectives of Nuclear Forensics in Responding to a Nuclear Security Event**

**Organized by the  
The IAEA Division of Nuclear Security**

**Wednesday, 5 May 2021**

**Scheduled at: 15:30, Vienna (Austria) Time**

**Duration 1.5 hours**

**Information Sheet**

## **Introduction**

Nuclear and other radioactive material is prevalent throughout the nuclear fuel cycle, and is also widely used in other industries and in research, and other technical and scientific applications. It is a State's responsibility to implement a nuclear security infrastructure to protect these materials, including measures designed to identify, prevent, detect and respond to nuclear security events. When nuclear and other radioactive material is detected out of regulatory control, States should be prepared to respond appropriately, including applying nuclear forensics in support of investigations.

This webinar will include a narrated interactive session where participants will observe an evolving nuclear security event, in which law enforcement responds to a report that radioactive material may have been smuggled into a residential area of the fictitious city of Rudas Cove. As the scenario develops, participants can actively engage in the narrated investigation through anonymous virtual participation tools, in order to learn about how elements of radiological crime scene management and nuclear forensics can assist law enforcement investigations by revealing potential links among the people, places, events and materials in question.

The narrated interactive session will be followed by a panel discussion on key aspects of the scenario, including a question and answer session. The panel will include law enforcement, prosecution and nuclear forensics science experts.

## **Objectives**

The objectives of the webinar are to:

- Introduce participants to the conduct of operations for radiological crime scene management and nuclear forensics in responding to a nuclear security event involving nuclear or radioactive material found out of regulatory control;
- Discuss the requirements for an investigation of a nuclear security event from the perspectives of law enforcement, nuclear forensics science and prosecution;
- Enhance participants' awareness and understanding of the role of radiological crime scene management and nuclear forensics in a national nuclear security infrastructure;
- Promote the importance and complexity of interagency cooperation in response to a nuclear security event.

## **Target Audience**

This webinar is aimed at organizations involved in the national nuclear security regime; officials and professionals involved in national policy, strategic planning and/or decision making; those tasked with raising awareness of nuclear forensics and/or radiological crime scene management; and those responsible for organizing and sustaining capabilities for nuclear forensics analysis and interpretation in the context of a nuclear security infrastructure.

## Working Language(s)

English

## Registration

Please register for the webinar using [this link](#), no later than **4 May 2021**.

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 Mr Henrik Horne, Division of Nuclear Security (Email: [h.horne@iaea.org](mailto:h.horne@iaea.org))

## Webinar Programme

### Opening Remarks

*Ms Elena Buglova, Director, Division of Nuclear Security, IAEA*

### Introduction

*Ms Eva Kovacs-Szeles, Unit Head, Crime Scene Management and Nuclear Forensics, Nuclear Security of Materials outside of Regulatory Control Section, Division of Nuclear Security, IAEA*

### Narrated Interactive Session on the Conduct of Operations of Nuclear Forensics

*Dr Frank Wong, Senior Scientist, Lawrence Livermore National Laboratory, United States of America*

### Panel Discussion with Q&A

*Mr John Buchanan, Head of Radiological and Nuclear Terrorism Prevention Unit, INTERPOL*

*Ms Elena Dinu, Head of Department for Combating Terrorism and National Security Crimes, Romanian Prosecutor's Office, Romania*

*Dr Ruth Kips, Deputy Associate Program Leader for International Nuclear Forensics and Deputy Group Leader for the Chemical and Isotopic Signatures Group, Lawrence Livermore National Laboratory, United States of America*

## **Subject matter experts**

### **Mr. John Buchanan, *INTERPOL***

Mr. John Buchanan is the Head of INTERPOL's Radiological and Nuclear Terrorism Prevention Unit having retired from UK Law Enforcement in 2016 as a Detective Inspector. During his 32 years' service, Mr Buchanan spent 8 years as a CBRNE and Specialist Firearms trainer at the regional policing level and then at the National CBRNE Centre of Excellence. The last 7 years of John's police service were spent working on Counter Terrorism policing, where he managed a team of Regional Counter Terrorism Security Advisors responsible for security advice and guidance on the protection of critical national infrastructure and hazardous sites such nuclear facilities, medical research facilities and hospitals.

### **Ms. Elena Dinu, *Romanian Prosecutor's Office***

Ms. Elena Dinu is Head of the Department for Combating Terrorism and National Security Crimes of the Romanian Prosecutor's Office. She has successfully concluded investigations and prosecutions of cases concerning national security crimes, terrorism, CBRN threats, homicides and cybercrimes, by leading multidisciplinary investigative teams. Elena Dinu was the first National Member for Romania at Eurojust, the EU agency responsible for international judicial cooperation, where she managed cooperation with partners from third countries and international organizations like Europol, CEPOL and UNODC. She is an alumnus of the Programme on Terrorism and Security Studies of the George C. Marshall Center and the International Visitor Leadership Program "US-EU Security Issues". Elena Dinu has an LLB in Law and a postgraduate diploma in International Law and International Relations from the University of Bucharest, a MSc in Management of Business, Innovation and Technology with the University of Sheffield, and she is currently a doctoral student in Management at the National School for Political and Administrative Studies in Bucharest.

### **Dr. Ruth Kips, *Lawrence Livermore National Laboratory***

Dr. Ruth Kips is the Deputy Associate Program Leader for International Nuclear Forensics and the Deputy Group Leader for the Chemical and Isotopic Signatures group at Lawrence Livermore National Laboratory (LLNL). Ruth has an M.Sc. in Nuclear Engineering and a Ph.D. in Chemistry from the University of Antwerp. After working as a nuclear engineer at Belgium's nuclear power plants, she started her research career at the European Commission's Joint Research Centre (JRC-Geel), where she studied uranium oxyfluoride particles for non-proliferation control. In 2008, she moved to California to join LLNL as a postdoctoral researcher, and then as a staff scientist, applying different microanalytical techniques to safeguards, nuclear forensics and environmental radiochemistry. Between 2012-2014, she served as a Nuclear Safeguards Inspector at the International Atomic Energy Agency. Since her return to LLNL, she has helped manage LLNL's international nuclear forensics program for the U.S. Department of Energy.

**Dr. Frank Wong**, *Lawrence Livermore National Laboratory*

Dr. Frank Wong is currently a Senior Scientist at the Lawrence Livermore National Laboratory leading and supporting several nuclear security efforts of the U.S. Department of Energy's National Nuclear Security Administration. While on assignment in Washington DC, he served as the Director for Nuclear Defense Policy at the National Security Council (NSC) at the White House from 2014 to 2016. At the NSC, his portfolio included nuclear detection architectures, nuclear forensics, and the nexus of cyber and nuclear security. Dr Wong was a member of the U.S. Sherpa Team for the 2016 Nuclear Security Summit. He created scenario-based policy discussions for the Nuclear Security Summits, the 2016 and 2020 IAEA ICONS, and the 2019 IAEA Technical Meeting on Nuclear Forensics: Beyond the Science. Dr Wong has also chaired the consultancies that developed IAEA NSS 2-G (Rev. 1) "Nuclear Forensics in Support of Investigations". Frank has an M.Sc. and Ph.D. in nuclear engineering from the Massachusetts Institute of Technology.