

International Conference on the Security of Radioactive Material

*The Way Forward For
Prevention and Detection*

**3 – 7 December 2018
Vienna, Austria**

PROGRAMME



Organized by the



IAEA

International Atomic Energy Agency



CN-269

Organized by the



In cooperation with the

Nuclear Threat Initiative (NTI)
Global Initiative to Combat Nuclear Terrorism (GICNT)
International Criminal Police Organization (INTERPOL)
United Nations Interregional Crime and Justice Research Institute (UNICRI)
1540 Committee (UN1549)
United Nations Office on Drugs and Crime (UNODC)
World Customs Organization (WCO)
International Irradiation Association (iia)
International Source Suppliers and Producers Association (ISSPA)
World Institute for Nuclear Security (WINS)
International Organization for Medical Physics (IOMP)

IAEA International Conference on the

Security of Radioactive Material: The Way Forward for Prevention and Detection

**3-7 December 2018
Vienna, Austria**

Programme

Introduction

This conference is being conducted in order to provide a forum for Member States to share their experiences, including difficulties encountered, lessons learned and good practices adopted, in the implementation of the *Nuclear Security Recommendations on Radioactive Material and Associated Facilities* (IAEA Nuclear Security Series No. 14), and *Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control* (IAEA Nuclear Security Series No. 15) and related international instruments, such as the Code of Conduct on the Safety and Security of Radioactive Sources. The conference will also provide an opportunity to outline the way forward.

The conference will address neither subjects related to the security of nuclear material under regulatory control in use, transport and storage, nor the response to nuclear security events. Further, the conference will not discuss any sensitive nuclear security information and issues of a political nature.

Registration

Please register your attendance at the Registration Desk at the entrance of the M Building.

The Registration Desk and the Conference Secretariat in MOE67 will be staffed throughout the conference and our colleagues there will be happy to assist you.

Conference App

The IAEA Conferences and Meetings App provides a one-stop access to information on the Conference Programme, the exhibition, and scheduled side events. The app also allows users to put together their own personalized schedule of events. Via this app participants will also be able to view the abstract associated with each presentation, the latest conference programme, message other participants, and view PowerPoint presentations released after the event. Participants will receive an email inviting them to register for the app approximately one week before the conference.

Conference Website & NUSEC Portal

In addition to the Conference App, most conference information will be available either on the Conference Website or the IAEA's Nuclear Security Information Portal (NUSEC). The conference schedule, registration procedures and more general information can be found on the conference website at <https://www.iaea.org/events/security-of-radioactive-material-conference-2018>

NUSEC is a secure, centralized and interactive online platform designed to help strengthen the Nuclear Security community worldwide by facilitating the exchange of up-to-date Nuclear Security information between the IAEA, its Member States and its international partners. After the conference, full papers and

presentations will be posted on NUSEC. Please visit <https://nusec.iaea.org> for access and new member registration.

Conference Overview

Monday will comprise an opening session and panel sessions involving national and international leaders and expert discussion. Tuesday, Wednesday, Thursday and Friday will commence with a panel session followed by parallel technical sessions. Friday will conclude with the Presidents' Report.

The panel sessions will take place in Board Room B/M1, and the parallel technical sessions will take place in Board Room B/M1, Board Room A and Conference Room M2.

Interactive Content Presentations

This conference features digital poster presentations called Interactive Content Presentations (ICPs). ICPs will be briefly introduced at the conclusion of the panel session prior to the ICP session, and will be presented on the first floor of the M- Building outside Board Room B/M1.

All ICP presenters are kindly requested to attend the ICP briefing to receive final logistical instructions. These briefings will occur at 08:30 every day at the ICP Station on the assigned day of their presentation (M Building, First Floor, outside Board Room B/M1).

Further, ICP presenters are suggested to make use of the preview centre on the ground floor (M0E67) for a final check of their presentations, and to familiarize themselves with the touch-screen displays at least one day in advance of their respective presentations.

Poster Presentations

Poster presentations will be held in the Poster Area outside Board Room A (2nd Floor, M Building) on Tuesday, Wednesday and Thursday during afternoon coffee/tea breaks. Poster presenters are kindly requested to affix their poster on the assigned poster board latest by Tuesday 09.00 am and to be at their poster during the poster session assigned to them (this information is available in this programme). Posters will remain on display for the entire week of the conference, and should be removed by 14:00 pm on Friday.

Discussions

All sessions are being recorded. Anyone who wishes to take the floor, e.g. during discussions, should, after having been recognized by the Chairperson, use one of the microphones available in the meeting room and begin their question or comment by stating their name, country or organization and be as concise as possible.

The Media

The opening session is open to the press. All other sessions will be limited to conference participants.

Scenario-based Policy Discussion

A Scenario-based Policy Discussion is scheduled to be held on Monday afternoon. This will be an interactive session where audience members can use their personal electronic devices, such as a mobile phone, tablet or laptop, to provide input into questions raised regarding themes and topics relevant to the conference. The Scenario-based Policy Discussion will take place in Board Room B/M1.

Side Events

A number of side events are scheduled throughout the Conference Programme, organized by interested Member States and Organizations and the IAEA, and relate to a number of topics relevant to the security of radioactive sources. Side events are open to all conference participants. A full schedule of side events can be found at the end of this Programme.

Exhibition and Coffee Breaks

Coffee and tea will be available during the morning and afternoon breaks courtesy of voluntary contributions provided by exhibitors. The coffee breaks will be held on the ground floor, first floor and second floor of the M Building. Please take the time to visit and talk with the exhibitors.

Internet Access

Public access Wi-Fi is available throughout the IAEA buildings. Select access point WLAN-GUEST and the connection will be automatic, no password is needed.

An Internet corner is located on back side of the ground floor of M Building.

Bank and Post Office

Banking Services and a post office are located on the first floor of the C building.

Conference:

Co-Presidents: HE Ms Maria Assunta Accili Sabbatini
Ambassador, Resident Representative
Permanent Mission of Italy to the IAEA
Italy

Ms Ndeye Arame Boye Faye
Director General, Senegalese Authority
for Radiation Protection and Nuclear
Safety

IAEA Secretariat:

Scientific Secretaries: Mr Thierry Pelletier
Ms Alessia Rodriguez y Baena

Scientific and Administrative Support: Mr Deepak Ojha
Mr Richard Gordon
Ms Katherine Tajer

Conference Coordination: Ms Martina Khaelss

Location of the Conference:

International Atomic Energy Agency
Vienna International Centre (VIC)
M Building
Wagramer Strasse 5
A-1400 Vienna, Austria

Tel.: (+43 1) 2600 21315

Working Language: English

Resolutions: No resolutions may be submitted for consideration on any subject; no votes will be taken.

Programme Committee

Patricia O'Brien USA

Chairperson

Bryceon Shulman USA

Thapelo Otukile Botswana

Victor Evans GICNT

Members

Tomas Bieda Argentina

Doug Ledingham INTERPOL

Federico Caceres Argentina

James McColm WCO

Raphael Duguay Canada

Ioanna Iliopulos Nuclear Threat Initiative

Nathalie Semblat Canada

Sen Lin China

Laurent Olmedo France

Theodore Matikas Greece

Zsolt Stefanka Hungary

Mrabit Khammar Morocco

Nasiru-deen Bello Nigeria

Muhammad Ibrar Pakistan

Sergey Zhurin Russian Federation

Mark Wittrock USA

Kristin Hirsch USA

Fred Morris USA

Margaret Cervera USA

Randy Howell USA

MOBILE CONFERENCE APPLICATION

(for smart phones and tablets)

Android



iPhone



Participants are encouraged to download the conference application (App) **IAEA Conferences and Meetings** available at Google Play and the iTunes Store. The QR codes above will take you right there.

Once you have installed the App simply select this conference.

The App allows you to:

- put together your own schedule and view up-to-date programme information;
- view PowerPoint presentations of those speakers who have permitted their release, after the presentation;
- interact with other participants using the App;
- submit questions/comments during the sessions.

If you wish to do so, toward the end of the conference, please provide us with your feedback using the evaluation form available on the App.

If you have questions or require assistance on the App please contact the Conference Registration Desk.

TIMETABLE

Sunday, 2 December 2018

15:00–18:30 Registration and Distribution of Conference Materials (Gate 1)

16:30–18:30 Welcome Reception
(Ground Floor, M-Building)

Monday, 3 December 2018

08:00– Registration and Distribution of Conference Materials (M Building, Registration Desk)

10:00–11:00 Opening Session
(Board Room B/M1)

11:00–12:30 Panel Session 1A State Experiences in
(Board Room B/M1) Prevention and Detection

12:30–14:00 *Lunch Break and Side Events*

14:00–16:00 Scenario-based
Policy Discussion
(Board Room B/M1)

16:00–16:30 *Coffee / Tea Break*

16:30–18:00 Panel Session 1B International Organizations -
(Board Room B/M1) Roles and Initiatives in
Prevention and Detection

Tuesday, 4 December 2018

09:00–10:30 Panel Session 2 Securing Radioactive
(Board Room B/M1) Material from Cradle to
Grave

10:30–11:00 *Coffee / Tea Break Interactive Content*
(Outside Board Room B/M1) *Presentations*

11:00–12:30 Technical Session International Instrument,
2A Cooperation & Assistance
(Board Room B/M1)

11:00–12:30 Technical Session Nuclear Security Culture
2B
(Board Room A)

11:00–12:30 Technical Session Interface Facility/Detection
2C and Public Engagement
(Conference Room
M2)

12:30–14:00 *Lunch Break and Side Events*

14:00–16:00 Technical Session Security Systems and
2D Measures: Physical
(Board Room B/M1) Protection

14:00–16:00 Technical Session Threat Reduction at Facilities
2E
(Board Room A)

14:00–16:00 Technical Session Security Management of
2F Disused Sealed Radioactive
(Conference Room Sources
M2)

16:00–16:30 *Coffee / Tea Break Poster Presentations*
(Outside Board Room A)

16:30–18:30 Technical Session Current and Emerging
2G Technology
(Board Room B/M1)

16:30–18:30 Technical Session Detection Architecture
2H
(Board Room A)

16:30–18:30 Technical Session Regulatory Requirements
2I
(Conference Room
M2)

18:30–20:30 Reception hosted by NTI
(Ground Floor, M-Building)

Wednesday, 5 December 2018

09:00–10:30 Panel Session 3 Detecting Radioactive
(Board Room B/M1) Material Involved in Criminal
and Unauthorized Acts

10:30–11:00 *Coffee / Tea Break Interactive Content*
(Outside Board Room B/M1) *Presentations*

11:00–12:30 Technical Session International Instrument,
3A Cooperation & Assistance
(Board Room B/M1)

11:00–12:30 Technical Session Nuclear Security Culture
3B
(Board Room A)

11:00–12:30 Technical Session Sustainability
3C
(Conference Room
M2)

12:30–14:00 *Lunch Break and Side Events*

14:00–16:00 Technical Session Security of Radioactive
3D Sources
(Board Room B/M1)

14:00–16:00 Technical Session Implementation of Detection
3E Systems and Operations
(Board Room A)

14:00–16:00 Technical Session Transport
3F
(Conference Room
M2)

16:00–16:30 *Coffee / Tea Break Poster Presentations*
(Outside Board Room A)

16:30–18:30 Technical Session Current and Emerging
3G Technology
(Board Room B/M1)

16:30–18:30 Technical Session Regulatory Function
3H
(Board Room A)

16:30–18:30 Technical Session Regulatory Requirements
3I
(Conference Room
M2)

18:30–20:30 Reception hosted by the EU
(Ground Floor, M-Building)

Thursday, 6 December 2018

09:00–10:30 Panel Session 4 Interfaces in International
(Board Room B/M1) Cooperation and
Communication

10:30–11:00 *Coffee / Tea Break Interactive Content*
(Outside Board Presentations
Room B/M1)

11:00–12:30 Technical Session Security by Design
4A
(Board Room B/M1)

11:00–12:30 Technical Session Human Resource
4B Development
(Board Room A)

11:00–12:30 Technical Session Sustainability
4C
(Conference Room
M2)

12:30–14:00 *Lunch Break and Side Events*

14:00–16:00 Technical Session Security Systems and
4D Security Management
(Board Room B/M1)

14:00–16:00 Technical Session Transport
4E
(Conference Room
M2)

16:00–16:30 *Coffee / Tea Break Poster Presentations*
(Outside Board Room A)

16:30–18:30 Technical Session Risk and Threat
4F
(Board Room
B/M1)

16:30–18:30 Technical Session Regulatory Function
4G
(Conference Room
M2)

Friday, 7 December 2018

09:00–10:30 Panel Session 5 Sustainability of National
(Board Room B/M1) Nuclear Security Regimes

10:30–11:00 *Coffee / Tea Break*

11:00–12:30 Technical Session Coordination and
5A Communication Bodies
(Board Room B/M1)

11:00–12:30 Technical Session Human Resource
5B Development
(Board Room A)

11:00–12:30 Technical Session Exercises
5C
(Conference Room M2)

12:30–13:00 *Coffee / Tea Break*

13:00–14:00 Closing Session
(Board Room B/M1)

Sunday, 2 December 2018

15:00–18:30 Registration and Distribution of Conference Materials (Gate 1)

16:30–18:30 Welcome Reception
(Ground Floor, M-Building)

Monday, 3 December 2018

08:00–ongoing Registration and Distribution of Conference Materials (Continued)

10:00–11:00 **Opening Session 1:**
(Board Room B/M1)

HE Ms Maria Assunta Accili Sabbatini,
Italy

Conference co-President
Permanent Mission of Italy to the IAEA

Opening Remarks

Ms Ndeye Arame Boye Faye, Senegal

Conference co-President
Senegalese Authority for Radiation
Protection and Nuclear Safety

Opening Remarks

Mr Juan Carlos Lentijo, IAEA

Deputy Director General,
Department of Nuclear Safety and Nuclear
Security

Opening Statement

Mr Raja Abdul Aziz Raja Adnan, IAEA

Division Director, Nuclear Security
Department of Nuclear Safety and Nuclear
Security

Introductory Remarks by NSNS

Monday, 3 December 2018

11:00–12:30

Panel Session 1A:

State Experiences in Prevention and Detection

(Board Room B/M1)

Moderator:

N. A. Boye Faye, Senegal

IAEA Technical Officer:

D. Ojha

INVITED SPEAKERS

Time

Name of Speaker

T. Bieda, Argentina

Ministry of Energy and Mining

R. Dresselaers, Belgium

Federal Agency for Nuclear Control

J. Jia, People's Republic of China

China Atomic Energy Authority

D. Shukla, India

Atomic Energy Regulatory Board

L. Dim, Nigeria

Nigerian Nuclear Regulatory Authority

D. Bokov, Russian Federation

Federal Service for Ecological, Technological and Nuclear Supervision

N. Reguigui, Tunisia

National Center for Nuclear Sciences and Technologies

D. Huizenga, USA

US Department of Energy

12:30–14:00

Lunch Break / Side Events

For full list of side events, see the Schedule of Side Events at the end of the Programme

Monday, 3 December 2018

14:00–16:00 **Scenario-Based Policy Discussion:**

(Board Room B/M1)

Moderator: **F. Wong, USA**
US Department of Homeland Security

IAEA Technical **Z. Ouedraogo**
Officers: **A. Parnell**
 K. Tajer

The Interactive Session will use a fictitious scenario to explore best practices and proven measures in radioactive material security for the prevention and the detection of an evolving threat involving such material in a major metropolitan area.

Brief video vignettes will be used to set the scene, and anonymous polling technology will garner responses from the audience. A panel of experts will discuss the polling results with the perspective of employing effective measures for security of radioactive material given such an evolving threat.

INVITED SPEAKERS

<i>Time</i>	<i>Name of Speaker</i>
	T. Matikas, Greece Greek Atomic Energy Commission
	M. Assi, Lebanon Lebanese Atomic Energy Commission
	N. Ishak, Malaysia Royal Malaysian Police
	T. Fedarovich, Belarus Ministry of Foreign Affairs

16:00–16:30 **Coffee / Tea Break**

Monday, 3 December 2018

16:30–18:00 **Panel Session 1B:**

**International Organizations - Roles and
Initiatives in Prevention and Detection**

(Board Room B/M1)

Moderator: **M.A. Accili Sabbatini, Italy**

IAEA Technical Officer: **V. Rouillet-Chatelus**

INVITED SPEAKERS

<i>Time</i>	<i>Name of Speaker</i>
	P. Johnson IAEA Office of Legal Affairs
	S. Llorenty 1540 Committee
	J. Luoto Global Initiative to Combat Nuclear Terrorism
	P. Ortiz Lopez International Organization for Medical Physics
	J. Buchanan INTERPOL
	M. Betti European Commission - Joint Research Centre
	L. Holgate Nuclear Threat Initiative
	M. Karimipour United Nations Office on Drugs and Crime
	V. Voronkov United Nations Office of Counter-Terrorism
	A. Vars World Customs Organisation
	R. Howsley World Institute for Nuclear Security

18:00

Tuesday, 4 December 2018

09:00–10:30

Panel Session 2:

**Securing Radioactive Material from Cradle
to Grave**

(Board Room B/M1)

Moderator:

Pradeepkumar K S, India

**IAEA Technical
Officer:**

G. Liebenberg

INVITED SPEAKERS

Time

Name of Speaker

K. Mrabit, Morocco

Moroccan Agency for Nuclear and
Radiological Safety and Security

F. Mansoor, Pakistan

Pakistan Nuclear Regulatory Authority

D. Bokov, Russian Federation

Federal Service for Ecological, Technological
and Nuclear Supervision

A. Ndao, Senegal

Senegalese Authority for Radiation
Protection and Nuclear Safety

R. Tripailo, Ukraine

State Nuclear Regulatory Inspectorate of
Ukraine

M. Dapas, USA

US National Regulatory Commission

H. Nguyen Nu, Viet Nam

Formerly of Vietnam Agency for Radiation
and Nuclear Safety

10:30–11:00

Coffee / Tea Break

Interactive Content Presentations

Tuesday, 4 December 2018**10:30–11:00 Interactive Content Presentations:****ICP Session 1****(Outside of Board Room B/M1)**

<i>ICP Station</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
10:30–10:45				
1	8	F. Mizban	Iraq	Challenges of Maintaining the Security of Radioactive Sources of Categories 1, 2 and 3 in the Liberated Iraqi Provinces
2	64	C. Potter	USA	Particle Resuspension and its Relation to Radiological Risk
3	185	M. Cervera	USA	US NRC's Integrated Source Management Portfolio: tools to Support Security and Licensing
10:45–11:00				
1	239	D. Rushartono	Indonesia	Indonesia's Criminal Law Policy to Suppress Nuclear Crimes on Radioactive Material
2	201	R. Delgado	World Institute for Nuclear Security (WINS)	Strengthening Radioactive Security in Mexico and Central America through Collaboration, Training and Certification
3	237	J. Cole	USA	Radiological Threat Reduction through Collaboration and Capacity Building: Planning for the Future in Secure Disposal of Radioactive Material

Tuesday, 4 December 2018

11:00–12:30 TECHNICAL SESSION 2A:

International Instrument, Cooperation & Assistance

(Board Room B/M1)

Chairperson: K. Mrabit, Morocco

IAEA Technical Officer: P. Gizowska

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	26	A. Kibria	Bangladesh	Drive in Strengthening the Security of Radioactive Materials in Bangladesh
11:10–11:20	145	C. Streeper	USA	Sustainable Security through Source Repatriation: A Case Study for International and Industry Cooperation
11:20–11:30	289	S. Ariyanto	Indonesia	Opportunities and Challenges to Strengthen Security of Nuclear Material
11:30–11:40	317	M. Tall	Senegal	On the Role of International Cooperation in the Process of Securing Radioactive Sources in Senegal.
11:40–11:50	352	A. Dang	Viet Nam	Strengthening International Cooperation for Prevention and Detection in Viet Nam and in South East Asia
11:50–12:00	274	R. Maurer	USA	International Assistance in the Technical Assessment of Nuclear and other Radiological Materials out of Regulatory Control
12:00–12:10	359	V. Evans	UK	Nuclear Detection Working Group
12:30–14:00	Lunch Break / Side Events			<i>For full list of side events, see the Schedule of Side Events at the end of the Programme</i>

Tuesday, 4 December 2018

11:00–12:30 TECHNICAL SESSION 2B:

Nuclear Security Culture

(Board Room A)

Chairperson: A. Izmaylov, Russian Federation

IAEA Technical Officer: Y. Nakamura

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	18	M. Kamari	Malaysia	Nuclear Security Culture Self-Assessment Trial: Current Status and Future Plans for the Malaysia
11:10–11:20	152	C. Speicher	Germany	Should the Regulator Evaluate his own Security Culture?
11:20–11:30	356	D. Patrick	USA	Creating a Cyber-Security Culture
11:30–11:40	107	F. Cáceres	Argentina	Nuclear Security Culture and Radioactive Sources: The Case of Argentina
11:40–11:50	118	I. Khripunov	USA	Special Considerations for the Security of Radioactive Sources and Implications for Culture Assessment
11:50–12:00	169	M. Solymosi	Hungary	Nuclear Security Culture Self Assessment in Radioactive Material Associated Facility
12:00–12:10	348	A. Elabd	Egypt	A Perspective on the Nuclear Security Culture: Challenges and Recommendations
12:30–14:00	Lunch Break / Side Events			<i>For full list of side events, see the Schedule of Side Events at the end of the Programme</i>

Tuesday, 4 December 2018

11:00–12:30 Technical Session 2C:

Interface Facility/Detection and Public Engagement

(Conference Room M2)

Chairperson: L. Ninsiima, Uganda

IAEA Technical Officer: R. Larsen

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	102	N. Kravchenko	Russian Federation	Special Technical Characteristics of Equipment and Response Procedures, Using of what Increases Efficacy of Combating Illicit Trafficking of Nuclear and Radioactive Material
11:10–11:20	206	A. Daulagala	Sri Lanka	Developing Police Capacity for Radiological Transportation Security and Theft Response
11:20–11:30	210	D. Romano	USA	Bridging the Gap – Thwarting Adversaries through Strengthened Site and Law Enforcement Relationships
11:30–11:40	294	N. Bakri	Malaysia	Nuclear Security Awakening- Strengthening Response Mechanism
11:40–11:50	353	S. Repanovici	Romania	Prevent, Detect and Response to Nuclear Security Event
11:50–12:00	292	H. Vu	Viet Nam	Cooperation between Regulatory Body and Custom Authorities in Preventing and Responding to out of Control Radioactive Sources at Vietnamese Border Gates
12:00–12:10	329	C. Lee	Malaysia	Radiation and the Public: The Role of Nuclear Security and Safeguards in Public Acceptance of Nuclear Technology in the Case of Malaysia
12:30–14:00	Lunch Break / Side Events			<i>For full list of side events, see the Schedule of Side Events at the end of the Programme</i>

Tuesday, 4 December 2018

14:00–16:00 **Technical Session 2D:**

**Security Systems and Measures:
Physical Protection**

(Board Room B/M1)

Chairperson: **H. Nu, Viet Nam**

**IAEA Technical
Officer:** **A. Shakoor**

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
14:00–14:10	22	U. Youngchuay	Thailand	Upgrading the Physical Protection System for Category I of Radioactive Sources in Thailand by International Physical Protection Advisory
14:10–14:20	115	M. Kuca	USA	Protection Concepts for Irradiators in a Laboratory Environment
14:20–14:30	43	H. El Eissawi	Egypt	Impact of Electric Power Disturbances on Physical Protection System Equipments and Solution Techniques in Nuclear Facilities
14:30–14:40	315	A. Izmaylov	Russian Federation	Physical Protection of Radioactive Materials and Associated Facilities
14:40–14:50	52	N. Butler	USA	Computer Security for Radiological Facilities
14:50–15:00	368	K. Boudergui	France	Feedback and Results of an RPM System Based on Passive Measurement Technologies for Nuclear Safety
15:00–15:10	19	F. Otoo	Ghana	Upgrade of Security of Radiological Facilities in Ghana
15:10–15:20	244	S. Ali	Pakistan	Security of Sealed Radioactive Sources – Operator's Perspective
16:00–16:30	Coffee / Tea Break		Poster Presentations	

Tuesday, 4 December 2018

14:00–16:00 Technical Session 2E:

Threat Reduction at Facilities

(Board Room A)

Chairperson: M. Ibrar, Pakistan

IAEA Technical Officer: S. Vleugels

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
14:00–14:10	47	K. Phyo	Myanmar	The Way Forward Against Insider Threats
14:10–14:20	211	J. Townsend	USA	Insider Threat Analysis Tool (ITAT)
14:20–14:30	335	S. Shaban	Egypt	Information Security for Nuclear and Other Radioactive Material and Associated Facilities: Roles and Responsibilities
14:30–14:40	105	C. MacKenzie	USA	University of California System-wide Plan to Replace Cesium Irradiators with Alternative Technologies
14:40–14:50	35	J. Kamen	USA	Permanent Removal of the Risk of Terrorist Attack using Radioactive Materials as a Dirty Bomb (RDD) by Means of Alternative Technologies
14:50–15:00	347	M. Assi	Lebanon	A New Perspective on Categorization of Radioactive Sources
16:00–16:30	Coffee / Tea Break		Poster Presentations	

Tuesday, 4 December 2018

14:00–16:00 **Technical Session 2F:**

**Security Management of Security
Management of Disused Sealed
Radioactive Sources**

(Conference Room M2)

Chairperson: **K. Hirsch, USA**

**IAEA Technical
Officer:** **G. Liebenberg**

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
14:00–14:10	4	K. Haroyan	Armenia	Search for and Recovery of Orphan and Disused Radioactive Sources
14:10–14:20	128	A. Ahmed	Egypt	Improving the Development of the National System in Iraq, for Education, Training Capable to Provide the Stations Nuclear the Skills of Human the Necessary at Al-Twaitha Nuclear Site, Baghdad-IRAQ
14:20–14:30	88	H. Shames	Libya	Secure Management of Radioactive Sources in Libya: Achievements vs Challenges
14:30–14:40	100	S. Nalumansi	Uganda	Suggestions for Improvement in Security of Disused Sealed Radioactive Sources in Uganda
14:40–14:50	151	A. Liyanage	Sri Lanka	Sri Lankan Experience in Implementation of a Search and Recovery Operation for Radioactive Sources
14:50–15:00	230	A. Ahmad	Pakistan	Secure Management of Disused Sealed Radioactive Sources (DSRS) in Pakistan
15:00–15:10	143	I. Gisca	Republic of Moldova	Security and Technological Best Practices for Central Storage Facilities
16:00–16:30	Coffee / Tea Break		Poster Presentations	

Tuesday, 4 December 2018

16:00–16:30 Poster Session 1

Poster Presentations

(Outside Board Room A)

<i>Poster Station</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:00–16:15				
1	251	I. Tsourounakis	Greece	Building a Security Vulnerability Assessment Program for the Greek Research Reactor
9	155	I. Balan	Republic of Moldova	The Use of Innovative Approaches in the Search for and Regaining Control Over Orphan Radioactive Sources in the Republic of Moldova
15	2	Y. Kyei	Ghana	A Model Transport Security Arrangement of Radioactive Material for Oil Exploration In Ghana
23	29	S. Sawiyah	Indonesia	Security of Radioactive Sources on the Revision of BAPETEN Chairman Regulation (BCR) Number 3 Year 2013 about Radiotherapy in Indonesia
30	61	D. Prifti	Albania	Physical Protection System of the Radioactive Waste Storage Facility at Institute of Applied Nuclear Physics in Albania
31	250	I. Babovic	Serbia	Security of Radioactive Sources: Establishing Legislative Framework in Serbia
35	99	B. Srimok	Thailand	Stakeholder Coordination and Preparation for Hosting IPPAS Module 4 Mission
43	127	R. Kievinas	Lithuania	Infrastructure for Detection of Orphan Sources in Lithuania
52	228	M. Addo	Ghana	Strengthening Nuclear Security Infrastructure or Radioactive Material Detection and Prevention of Misuse in Ghana
62	314	S. Han	Republic of Korea	Status on Security of Radioisotopes Security in Korea
68	336	R. Omer	Sudan	Role of Sea Ports Corporation as a FLO
79	135	C. Deyglun	France	Testing and performances of radiation detection instruments for nuclear security

<i>Poster Station</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:15–16:30				
5	331	N. Zafimanjato	Madagascar	Strengthening the Security of Radioactive Material and Implementing Nuclear Security Detection Architecture in Madagascar
11	79	S. Chuvaev	Russian Federation	Handheld Device for Distinguishing Spontaneous Fission Neutrons from Others
18	74	S. Ahmad	Pakistan	Sustainment of Security of SRS-PNRA Role for Technical Support
21	208	C. Gamulani	Malawi	The Status and Progress of Securing Radioactive Materials in Malawi
25	28	N. Agbemava	Ghana	Enhancing Information Security in the Transport of Radioactive Materials in Ghana: Current Status
33	98	D. Nugroho	Indonesia	Nuclear Material Security Monitoring using Multisensor Integration
40	123	D. Žarković	Serbia	Securing the Decommissioning of Radioactive Waste Hangars within Public Company Nuclear Facilities of Serbia
46	167	F. Invernizzi	Paraguay	Aspects of Nuclear Security during the re-Export of Unused Sources of Co-60 in Paraguay
50	194	C. Manda	Malawi	Experiences of Security During Transportation of Radioactive Material in Malawi
58	247	M. Salem	Egypt	Physical Security Proposing for Risk Reduction in Hypothetical Nuclear Fuel Cycle Facility
65	300	V. Hódosi	Hungary	Radioactive Source Security Regulation in Hungary and the Improvement of the Detection and Prevention Capabilities in the National Regulatory Framework
72	386	M. Atogo	Kenya	Inter-Agency Collaboration in Combating Illicit Trafficking of Radioactive Materials in Kenya

Tuesday, 4 December 2018

16:30–18:30 **Technical Session 2G:**
Current and Emerging Technology
(Board Room B/M1)

Chairperson: **A. Nilsson, Sweden**

IAEA Technical **M. Man**
Officer:

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:30–16:40	225	Z. He	USA	3-D CdZnTe Gamma-ray Imaging Spectrometers for Nuclear Material Detection and Characterization
16:40–16:50	373	H. Foy	Ghana	Priorities for Effective Adoption and Sustainable use of Linacs in Teletherapy Cancer Treatment In Africa
16:50–17:00	384	D. Guo	People's Republic of China	Integrated Uranium Geology Analysis Platform (IUGAP) Applied to Identify Unauthorized Radioactive Materials
17:00–17:10	170	M. Corbo	Italy	Modular and Integrated Sensor Network of Intelligent Radiation Monitoring Systems for Radiological and Nuclear Threat Response.
17:10–17:20	84	A. Solodov	USA	Evaluation of a Potential RDD Risk Posed by Non-Reactor Radionuclide Production Technologies
17:20–17:30	288	I. Liyanage	Sri Lanka	Identification of Effective Parameters and Their Relations for Normalization of Radiation Profiles From Radiation Portal Monitors for Initial Alarm Assessment At The Ports of Entry
17:30–17:40	380	J. Chaput	International Atomic Energy Agency	The Application of Virtual Reality to Support Training Concepts for Nuclear Security
18:30–20:30	Reception hosted by NTI <i>(M Building Ground Floor)</i>			

Tuesday, 4 December 2018

16:30–18:30 Technical Session 2H:

Detection Architecture

(Board Room A)

Chairperson: T. Bieda, Argentina

IAEA Technical Officer: M. Nikolaki

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:30–16:40	188	J. Paredes	Cuba	Implementing Multiple Layers of Security to Promote Effective Detection of Nuclear and Other Radioactive Material out of Regulatory Control: Cuba Perspective.
16:40–16:50	131	S. Mui	USA	Detection by Defense in Depth: Building out the Interior Layer of a Nuclear Security Detection Architecture
16:50–17:00	275	S. Menard	France	Contribution of the MONTE CARLO Modelling for the Minimum Detectable Activity of Spectrometer Gamma of Large Volume
17:00–17:10	301	N. Nguyen	Viet Nam	Vietnam's Nuclear Security Measures and System in Prevention and Detection of Nuclear Security Events at the designated Point of Entries and the Interior
17:10–17:20	302	D. Masse	France	Radioactive and Nuclear Security of Critical Infrastructures and Major Events: Contribution of Reachback Expertise Center for First Responders
17:20–17:30	378	O. Kabore	Burkina Faso	Radioactive Materials Detection System at the Borders of Burkina Faso; Alert and Assessment Procedure
17:30–17:40	33	N. Bello	Nigeria	Development of Nigerian Nuclear Security Detection Architecture (NSDA): Current Activities and Future Actions
17:40–17:50	358	P. Brandhoff	Netherlands	The Dutch Detection Architecture for Orphan Sources in Scrap Metal
18:30–20:30	Reception hosted by NTI (M Building Ground Floor)			

Tuesday, 4 December 2018

16:30–18:30 **Technical Session 2I:**
Regulatory Requirements
(Conference Room M2)

Chairperson: **C. Crawford, USA**

IAEA Technical Officer: **K. Tajer**

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:30–16:40	270	R. Paci	Albania	Enhancing Regulatory Requirements for Security of Radioactive Material In Albania
16:40–16:50	55	M. Voytchev	France	IEC Standards for Evaluation of Radiation Instrumentation Used for The Detection of Illicit Trafficking of Radioactive Material
16:50–17:00	75	M. Zubair	Pakistan	Pakistan's Experience of Enhancing Security Measures for Sealed Radioactive Sources (SRS)
17:00–17:10	21	S. Nalumansi	Uganda	Experiences and Challenges On Prevention and Detection of Radioactive Sources In Uganda
17:10–17:20	221	N. Reguigui	Tunisia	Tunisia's Plan to Develop a New Legal and Regulatory Framework for Nuclear Security
17:20–17:30	184	M. Cervera	USA	Evaluating Effectiveness: US NRC's Review of the Radioactive Material Security Regulatory Infrastructure and 10 CFR Part 37
17:30–17:40	265	J. Wang	China	Introduction to China's Legal System for the Security of Radioactive Material

18:30–20:30 Reception hosted by NTI
(M Building Ground Floor)

Wednesday, 5 December 2018

09:00–10:30

Panel Session 3:

Detecting Radioactive Material involved in
Criminal and Unauthorized Acts

(Board Room B/M1)

Moderator: V. Evans, UK

**IAEA Technical
Officer:** A. McQuaid

INVITED SPEAKERS

Time

Name of Speaker

F. Cáceres, Argentina
Ministry of Energy and Minerals

S. Abousahl, European Commission
Joint Research Centre

T. Matikas, Greece
Greek Atomic Energy Commission

N. Bakri, Malaysia
Atomic Energy Licensing Board

W. Jiang, People's Republic of China
General Administration of Customs

L. Ninsiima, Uganda
Atomic Energy Council

D. Papas, USA
US Department of Energy

10:30–11:00

Coffee / Tea Break

Interactive Content Presentations

Wednesday, 5 December 2018

10:30–11:00 Interactive Content Presentations:

ICP Session 2

(Outside of Board Room B/M1)

<i>ICP Station</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
10:30–10:45				
1	387	N. Bakri	Malaysia	Implementation of a Concept of Operation on Detection of Illicit Trafficking of MORC
2	291	T. Edmunds	USA	Optimization Planning Tool for Urban Search (OPTUS)
3	146	A. Askin	USA	Assessment Framework for Legal and Regulatory Provisions for the Detection of Criminal or Intentional Unauthorized Acts Involving Nuclear or Other Radioactive Material out of Regulatory Control
10:45–11:00				
1	277	R. Tavares	Brazil	Strengthening the Security of Radioactive Sources in Brazil: A Roadmap to Success
2	248	M. Woolley	Switzerland	Radiological Security for Mass Events
3	334	D. McIntyre	USA	Public Involvement in Radioactive Material Security

Wednesday, 5 December 2018

11:00–12:30 Technical Session 3A:

International Instrument, Cooperation &
Assistance

(Board Room B/M1)

Chairperson: D. Makharadze, Georgia

**IAEA Technical
Officer:** P. Gizowska

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	218	L. Ratz	Nuclear Threat Initiative	Strengthening the Security of Radioactive Sources in Central Asia
11:10–11:20	342	J. Facetti	Paraguay	The Committee on Hemispheric Security and eventually the Permanent Council of the Organization of American States (OAS) as a Valid Forum for Discussing Nuclear Security of Radioactive Material in the America
11:20–11:30	280	J. Elster	USA	Supporting Comprehensive, International Radiological Security through Alternative Technologies
11:30–11:40	284	L. Oo	Myanmar	Implementation of Strengthening National Nuclear Security Regime
11:40–11:50	382	H. Rehman	Pakistan	Radioactive Material Security Education and Training in the Context of Global Nuclear Cooperation Regime
12:30–14:00	Lunch Break / Side Events			<i>For full list of side events, see the Schedule of Side Events at the end of the Programme</i>

Wednesday, 5 December 2018**11:00–12:30 Technical Session 3B:****Nuclear Security Culture****(Board Room A)****Chairperson: N. Semblat, Canada****IAEA Technical Officer: Y. Nakamura****CONTRIBUTED PRESENTATIONS**

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	180	J. Harris	USA	Assessment of Radioactive Material Security Culture at Universities and Medical Facilities
11:10–11:20	231	M. Umar	Pakistan	Fostering Security Culture at Facilities Handling Radioactive Material
11:20–11:30	328	M. Umayam	USA	Exploring Industry Incentives to Demonstrate Due Care for the Security of Radiological Material
11:30–11:40	44	K. Khairul	Indonesia	The Implementation of Security Culture of Radioactive Source in BATAN's Facility: Applied Sampling Culture Indicator from IAEA CRP JO2007
11:40–11:50	165	K. Hocde	France	Radioprotection versus security: the necessary evolution of protection measures and attitude.
11:50–12:00	125	M. Mladenovic	Serbia	Public Company "Nuclear Facilities of Serbia" Experience in Strengthening Nuclear Security Culture
12:00–12:10	82	F. De Lemos	Brazil	A Systemic Approach to Enhancing Nuclear Security Culture
12:30–14:00	Lunch Break / Side Events		<i>For full list of side events, see the Schedule of Side Events at the end of the Programme</i>	

Wednesday, 5 December 2018**11:00–12:30 Technical Session 3C:****Sustainability****(Conference Room M2)****Chairperson: A. Eladb, Egypt****IAEA Technical Officer: J. Conner****CONTRIBUTED PRESENTATIONS**

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	85	M. Ivanov	Russian Federation	Strengthening Sustainability for Security of Radioactive Material and Associated Facilities through Interaction With Operators During the Improvement of Normative and Legal Framework
11:10–11:20	92	M. Snell	USA	Vulnerability Assessment for Radioactive Material
11:20–11:30	340	G. Bentoumi	Canada	Using Operational Research Techniques to Inform Strategic Investment in Nuclear Security Technology Development
11:30–11:40	192	B. Tucker	USA	Sustainability Challenges and Recommendations for Internationally Deployed Radiation Detection Instruments
11:40–11:50	80	A. Alsalman	Jordan	Evaluation of Polyvinyl Toluene Plastic Detectors to Distinguish Man-Made Sources from Naturally Occurring Radioactive Material (NORM)
12:30–14:00	Lunch Break / Side Events			<i>For full list of side events, see the Schedule of Side Events at the end of the Programme</i>

Wednesday, 5 December 2018

14:00–16:00 **Technical Session 3D:**

Security of Radioactive Sources

(Board Room B/M1)

Chairperson: **V. Rangelova, European Union**

IAEA Technical Officer: **A. Shakoor**

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
14:00–14:10	163	N. Luwalira	Uganda	Challenges in Establishing Nuclear Security Systems in Uganda
14:10–14:20	234	K. Adhikari	Nepal	Radioactive Source Security in Nepal: Status, Issues & Challenges
14:20–14:30	285	A. Alzyoud	Jordan	Security of Radioactive Sources; Gaps Analysis and Recommended Actions
14:30–14:40	191	D. Sweeney	USA	Radiological Security Considerations in Areas Lacking Infrastructure, Reliable Power, and Resources
14:40–14:50	297	B. Abbani	Libya	Enhancing of Detection and Prevention Measures of Nuclear and Radioactive Materials in Libya
14:50–15:00	122	R. Karanam	India	New Approach to Securing Radioactive Materials
15:00–15:10	69	N. Ramamoorthy	India	Fostering Synergy of Security of Radiography Sources and Radiation Safety in Industrial Applications
16:00–16:30	Coffee / Tea Break		Poster Presentations	

Wednesday, 5 December 2018

14:00–16:00 Technical Session 3E:

Implementation of Detection Systems and Operations

(Board Room A)

Chairperson: J. Gilisman, Cuba

IAEA Technical Officer: A. McQuaid

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
14:00–14:10	178	R. Maurer	USA	Detection of Nuclear or Other Radiological Materials Out of Regulatory Control as Criminal/Unauthorized Threats to Major Public Events
14:10–14:20	235	V. Jain	India	Detection of Radioactive Material in Public Places: Handheld Tele Radionuclide Alarm Device (Tele-RAD)
14:20–14:30	261	D. Makharadze	Georgia	Georgia Lessons Learned from Deploying Detection Operations Strengthening the National-Level Nuclear Security Detection Architecture
14:30–14:40	267	A. Slimani	Tunisia	Nuclear Security Measures in Tunisia: Prevention and Detection Systems
14:40–14:50	268	J. Beyala Ateba	Cameroon	Investigation of the suspected radioactive contaminated container at the Kribi deep Seaport - Cameroon
14:50–15:00	304	S. Saindane	India	Systems for Detection of Unauthorised Movement / Illicit Trafficking of Radioactive Material
15:00–15:10	162	V. Janjić	Serbia	Strengthening Nuclear Security Detection Capabilities in Serbia
16:00–16:30	Coffee / Tea Break		Poster Presentations	

Wednesday, 5 December 2018**14:00–16:00** **Technical Session 3F:**

Transport

*(Conference Room M2)***Chairperson:** **H. Mohd Ali, Malaysia****IAEA Technical Officer:** **D. Smith****CONTRIBUTED PRESENTATIONS**

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
14:00–14:10	216	P. Singley	USA	Developing a Secure Logistics System for Radiological Material
14:10–14:20	62	R. Duguay	Canada	Research on the Use of New Tracking Technologies for Category 2 and 3 Radioactive Sealed Sources in Transport
14:20–14:30	214	M. Devaney	USA	Best Practices for Safety and Security Interface in Transport Security
14:30–14:40	319	Y. Liu	USA	ARG-US Remote Monitoring Systems for Enhancing Security of Radioactive Material
14:40–14:50	324	B. Officer	UK	Security During the Transport of Radioactive Material: An End to End Multi Modal Approach to Vitrified Residue Returns
14:50–15:00	367	F. Carrel	France	The H2020 C-BORD Project: Feedback and Conclusion of an Advanced Non-Destructive Techniques to Improve Control of Cargo Containers
16:00–16:30	Coffee / Tea Break		Poster Presentations	

Wednesday, 5 December 2018**16:00–16:30 Poster Session 2****Poster Presentations****(Outside Board Room A)**

<i>Poster Station</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:00–16:15				
2	160	A. Osovizky	Israel	Robust and Flexible Design of Neutron Scintillation Detector Based on Wavelength Shifter and Silicon Photomultiplier
7	312	D. Sullivan	USA	Activity Quantification for Source Security Applications with the Spir-Ace RID
22	290	I. Mundia	Kenya	Impact of International Cooperation on Security of Radioactive Sources in Kenya
29	11	V. Tran-Quang	Viet Nam	A Real-Time Surveillance and Management System for Mobile Radiation Sources
36	30	A. Hayani	Indonesia	Implementation of Security Plan as Requirement on Approval of Transport of Radioactive Sources from Regulatory Body Based on Indonesian Regulation
41	101	R. Ssegane	Uganda	Coordination Mechanisms for Inter-Agency Action in Detection of and Response to Nuclear and Radioactive Material outside Regulatory Control in East African States
51	133	C. Stinson	USA	Organizational Culture Change: A Path to Sustainable Nuclear Security Measures and Systems
57	156	A. Syuryavin	Indonesia	Reviewing the Prescriptive-based Regulation of the Continental Shelf Territory of Indonesia for Regulating Security of Radioactive Sources
70	219	T. Nguyen	Viet Nam	Regulatory Management to Ensure the Security of Radioactive Sources in Vietnam
76	182	M. Cervera	USA	Cooperation on Radioactive Materials Transportation Security: Beyond the Signed Agreement

16:15–16:30

<i>Poster Station</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
4	161	B. Kaboro	Kenya	Lessons Learned from Adversaries 'Perfected' Activities in Kenya
10	338	M. Hazzaa	Egypt	A Proposed Regulatory Requirements for Insider Threats Concerning Security of Radioactive Material and Associated Facilities
13	14	O. Agbenorku	Ghana	Regulatory Functions and Practices to Prevent and Detect Illicit Trafficking of Radioactive Materials in Ghana
19	49	P. Pengvanich	Thailand	Enhancing of Nuclear and Radioactive Materials Security in Academic Institute
20	136	M. Kuca	USA, Sweden	A Case Study on the Effectiveness of Mechanical Attack Testing to Help Determine Vulnerabilities of a Device that contains Radiological Material and Proven Methods of Addressing such Vulnerabilities
24	81	H. Sallam	Egypt	Radiation Sources Licensing Information System Cybersecurity Measures
28	257	N. Dharmaratne	Sri Lanka	Specific Legal Provisions on Sharing of Information/Intelligence Regionally and Close Coordination Among all Stakeholders Locally are Key to Prevent Sabotage of Radioactive Material
34	126	D. Arbutina	Serbia	International Cooperation in Strengthening Nuclear Security- Public Company "Nuclear Facilities of Serbia"
39	147	T. Wright	USA	Front Line Officer Standard Operating Procedure Development for MORC Detection Operations
47	157	I. Vujcic	Serbia	Enhancing Security System of Irradiation Facility in Vinca Institute Belgrade - Serbia
53	200	D. Sekyanzi	Uganda	Strengthening Information Exchange and Experiences Between Competent Authorities Including Neighboring Countries for Lost, Stolen or Illicit Trafficked Radioactive Material in Uganda"
73	362	M. Hamed	Sudan	Strengthening Domestic Interfaces and Leveraging Existing Capabilities for Detecting Material Out of Regulatory Control
77	240	T. Flury	Switzerland	Security of Radioactive Sources in Switzerland

Wednesday, 5 December 2018**16:30–18:30 Technical Session 3G:****Current and Emerging Technology****(Board Room B/M1)****Chairperson:** L. Olmedo, France**IAEA Technical Officer:** A. Khamzayeva**CONTRIBUTED PRESENTATIONS**

<i>Time</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:30–16:40	171	G. Mangiagalli	Italy	A Novel Portable Device for Gamma and Neutron Spectroscopy with Special Nuclear Material Identification Capabilities
16:40–16:50	249	R. Vazquez-Cervantes	Mexico	Remote Operated Vehicles for Radiological Emergencies
16:50–17:00	313	T. Ochs	USA	Wearable Neutron Detector for Dosimetry and Nuclear Non-Proliferation
17:00–17:10	323	D. Rothan	France	Gamma Cameras as New Technological Developments to Strengthen Nuclear Security Detection Architectures: Emerging Potential Approaches within Regulatory Frameworks and Implementation Practice, Expected added Value to Existing Measures from Instrumentation-Specific Technical and Functional Characteristics.
17:10–17:20	363	Y. Podpaly	USA	Environment Insensitive Detection of Fissionable Material with a Short Pulse Neutron Source
17:20–17:30	113	L. Garrison	USA	Radiological Security through Cesium Irradiator Replacement in the United States
17:30–17:40	346	E. De Souza	Brazil	Radiation Detectors: When They Act for Prevention and When They Act for Identification.
18:30–20:30	Reception hosted by the European Union (M Building Ground Floor)			

Wednesday, 5 December 2018

16:30–18:30 Technical Session 3H:

Regulatory Function

(Board Room A)

Chairperson: N Li, People's Republic of China

IAEA Technical Officer: K. Brooks

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:30–16:40	104	J. Vucicevic	Canada	Administrative Monetary Penalties in Nuclear Security
16:40–16:50	166	M. Cervera	USA	A Graded Approach to Cybersecurity: Smaller Facilities, Temporary Jobsites, or Multiple Authorities
16:50–17:00	233	R. Pashayev	Republic of Azerbaijan	State Supervision and Control over Security of Radioactive Materials
17:00–17:10	322	R. Elsayd	Egypt	Best Practices and Challenges for Securing Radioactive Materials
17:10–17:20	327	N. Rabani	Malaysia	Assessment and Licensing Mechanism to Ensure Nuclear Security in Malaysia
17:20–17:30	9	R. Samba	Cameroon	Process Oriented Approach in Updating and Maintaining National Register of Radiation Sources
17:30–17:40	87	R. Cupitt	Stimson Center	Improving Global Radiological Source Security: National Legal Frameworks, Penalty Provisions, and Preventive Enforcement
17:40–17:50	164	I. Apostol	Republic of Moldova	Strengthening Security of Radioactive Sources in the Republic of Moldova
18:30–20:30	Reception hosted by the European Union (M Building Ground Floor)			

Wednesday, 5 December 2018

16:30–18:30 **Technical Session 3I:**
Regulatory Requirements
(Conference Room M2)

Chairperson: **C. Martin, USA**

IAEA Technical **S. Vleugels**
Officer:

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:30–16:40	27	I. Ewa	Nigeria	Implementing Strategies for the Security and Safe use of Radioactive Materials at the Centre for Energy Research and Training (CERT), Zaria., Nigeria
16:40–16:50	375	Y. Fiagan	Togo	Security of Radioactive Material, Associated Facilities and Associated Activities in Togo
16:50–17:00	117	Z. Kayun	Malaysia	Practices and Regulation for Effectiveness on Nuclear Security Control of Radioactive Sources at Medical Facilities in Malaysia
17:00–17:10	276	F. Da Silva	Brazil	Challenges in the Elaboration of the New Regulation for Security of Radioactive Sources in Brazil
17:10–17:20	12	V. Lesage	France	Design of the French Regulations on the Security of Radioactive Sources - Challenges and Lessons Learnt
17:20–17:30	137	F. Morris	USA	Maintaining and Regaining Control of Radioactive Sources: Legislative and Regulatory Approaches
17:30–17:40	42	A. Kirtaev	Russian Federation	Incorporating the IAEA Recommendations on the Security of Radioactive Materials into the Russian Federal Rules and Regulations in the Field of Atomic Energy Use
18:30–20:30	Reception hosted by the European Union (M Building Ground Floor)			

Thursday, 6 December 2018

09:00–10:30

Panel Session 4:

**Interfaces in International Cooperation and
Communication**

(Board Room B/M1)

Moderator:

M. Salema, Tanzania

**IAEA Technical
Officer:**

K. Horvath

INVITED SPEAKERS

Time

Name of Speaker

N. Semblat, Canada
Global Affairs Canada

P. Wynne
International Irradiation Association

Y. Naoi, Japan
Japan Atomic Energy Agency

A. Al Khatibeh, Jordan
Formerly of the IAEA

M. Souley Zeinabou, Niger
High Authority for Atomic Energy of Niger

N. Kozlova, Russian Federation
Rosatom State Nuclear Energy Corporation

M. Sobrado
United Nations Office on Drugs and Crime

E. Melamed, USA
US Department of Energy

10:30–11:00

Coffee / Tea Break

Interactive Content Presentations

Thursday, 6 December 2018

10:30–11:00 Interactive Content Presentations:

ICP Session 3

(Outside of Board Room B/M1)

<i>ICP Station</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
10:30–10:45				
1	40	M. Abdulrahman	Sudan	The Revolution of Information Security in Sudan
2	90	T. Le	USA	Mixed Reality 3D Tabletop Tool with Radioactive Source Model Visualization
3	91	C. Cole	USA	Randomized Operations–Board Exercise (ROBEx)
10:45–11:00				
1	232	A. Mardhi	Indonesia	Research on Computer-Based Analytical Tool for Evaluating Physical Protection System Effectiveness
2	144	I. Abdul Rahman	USA	Development of a National Train-the-Trainer Programme for Nuclear Security Detection in Malaysia via Collaboration between the International Nuclear Security Education Network (INSEN) and the Network of Nuclear Security Support Centres (NSSC)
3	341	D. White	USA	How Much Security is Enough?

Thursday, 6 December 2018

11:00–12:30 Technical Session 4A:

Security by Design

(Board Room B/M1)

Chairperson: F. Cáceres, Argentina

IAEA Technical Officer: K. Brooks

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	3	H. Al-Hamadani	Iraq	Development of Access Control System (ACS) in the Protected Area (PA) at Al-Tuwaitha Nuclear Site
11:10–11:20	119	H. Ito	Japan	Current Status for Radioactive Material “Security” of Japan: Toward 2020 Tokyo Olympic and Paralympic Games
11:20–11:30	138	M. Kuca	USA	A Case Study on a Successful Collaborative Project to Increase Security for a Device Containing Radiological Material
11:30–11:40	258	L. Wang	People's Republic of China	Introduction to the Graded Approach to the Security of Radioactive Material in China
11:40–11:50	139	M. Hazel	USA	Global Cesium Security Initiative – A Comprehensive Approach to Cesium Security
12:30–14:00	Lunch Break / Side Events			<i>For full list of side events, see the Schedule of Side Events at the end of the Programme</i>

Thursday, 6 December 2018

11:00–12:30 **Technical Session 4B:**
Human Resource Development
(Board Room A)

Chairperson: **C. Bent, USA**

IAEA Technical Officer: **A. Kazennov**

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	45	S. Putero	Indonesia	Infusing Nuclear Security Topics into Present Nuclear Engineering Curriculum in Universitas Gadjah Mada: An International Cooperation, Local Action and International Impact
11:10–11:20	54	H. Dassanaiké	Sri Lanka	Security of Radioactive Material and Human Resource Development: Sri Lanka Navy's Effort
11:20–11:30	70	F. Da Silva	Brazil	Brazilian Seminar "Safety and Security: Harmonization and Action": A tool for Human Resource Development
11:30–11:40	89	K. Unlu	USA	Penn State Nuclear Security Graduate Education Program: Nuclear Security System Design
11:40–11:50	303	R. Evans	World Institute for Nuclear Security (WINS)	World Institute of Nuclear Security (WINS) Programmes for Sustainable Radioactive Source Security
11:50–12:00	349	T. Bieda	Argentina	Radiological Source Security in Major Urban Areas
12:00–12:10	72	N. Izmailova	Kazakhstan	Security of Radioactive Material in Nuclear Security Training Programmes in Kazakhstan
12:10–12:20	307	J. Galy	European Commission	Human Resource Development: A key Asset in Detecting Nuclear and Other Radioactive Material
12:30–14:00	Lunch Break / Side Events			<i>For full list of side events, see the Schedule of Side Events at the end of the Programme</i>

Thursday, 6 December 2018

11:00–12:30 Technical Session 4C:

Sustainability

(Conference Room M2)

Chairperson: Z. Stefanka, Hungary

IAEA Technical Officer: J. Davydov

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	242	P. Gray	USA	Nuclear Security Continual Improvement
11:10–11:20	326	O. Elhefnawy	Egypt	Considerations for Newcomers to Strengthen the Security of Radioactive Materials and Associated Facilities
11:20–11:30	238	J. Hoyt	USA	Sustainability Considerations for Advanced Nuclear Smuggling Detection Systems
11:30–11:40	229	N. Alawadhi	Kuwait	The Importance of National Stakeholders' Involvement and Synergies in Setting up an Effective Integrated System for the Security of Radioactive Material: Kuwait's Approach and Experience
11:40–11:50	190	C. Roberts	USA	The Exercise Development Workshop: A Suite of Tools for Exercises and Evaluation
11:50–12:00	111	L. Trost	USA	In a New York Minute: Economic Impacts of Radiological Dispersion Device
12:30–14:00	Lunch Break / Side Events			<i>For full list of side events, see the Schedule of Side Events at the end of the Programme</i>

Thursday, 6 December 2018

14:00–16:00 Technical Session 4D:

Security Systems and Security
Management

(Board Room B/M1)

Chairperson: L. Dim, Nigeria

IAEA Technical Officer: A. Shakoor

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
14:00–14:10	56	Y. Hasan	Indonesia	BATAN's Practices on Prevention and Detection Measures for the Security System of its Radioactive Material
14:10–14:20	116	M. Kuca	USA	Development of an International Security Standard for Devices Containing High Levels of Radiological Material
14:20–14:30	198	R. Asaba	Uganda	Nuclear Security features for the Interim Radioactive Source Storage Facility in Uganda
14:30–14:40	345	J. Miller	USA	Challenges Implementing Physical Security Measures at a Source Manufacturing Facility
14:40–14:50	142	J. Manion	USA	Site Security Plans: Best Practices and Common Pitfalls
14:50–15:00	385	T. Warner	Jamaica	Security of Radioactive Materials: The Jamaican Regulatory Authority Perspective
15:00–15:10	293	P. Völgyesi	Hungary	Technical and Scientific Support Capabilities of the Nuclear Security Department (MTA EK, Hungary)
16:00–16:30	Coffee / Tea Break		Poster Presentations	

Thursday, 6 December 2018

14:00–18:30 **Technical Session 4E:**

Transport

(Conference Room M2)

Chairperson: **R. Duguay, Canada**

**IAEA Technical
Officer:** **D. Ladsous**

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
14:00–14:10	174	B. Kluse	USA	Best Practices for Security of Mobile Radioactive Devices Commonly Used in the Industrial Radiography Industry
14:10–14:20	176	B. Kluse	USA	Best Practices for Security of Mobile Radioactive Devices Commonly Used in the Well Logging Industry
14:20–14:30	195	V. Phi	Viet Nam	A Practical Sharing Experience for Pilot Project in On-line Tracking of Mobile Radioactive Sources in Viet Nam
14:30–14:40	308	A. Aaron	USA	Unmanned Ariel Systems as an Enhancement and Threat to Radioactive Material Transport and Physical Security
14:40–14:50	296	S. Utami	Indonesia	Legal and Regulatory Framework on Security Transport of Radioactive Material
16:00–16:30	Coffee / Tea Break		Poster Presentations	

Thursday, 6 December 2018

16:00–16:30 Poster Session 3

Poster Presentations

(Outside Board Room A)

<i>Poster Station</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:00–16:15				
3	316	K. Ahmad	Nigeria	Effective Security of Radioactive Materials in Port Harcourt Refining Company Limited: Threat Challenges and Prospect
8	120	I. Indragini	Indonesia	Strengthen Nuclear Security Regime Through Capacity Building Program (Activity Progress: Indonesia National Nuclear Energy Agency)
16	224	V. Goltsov	Russian Federation	Atomexpert Practices in Training Activities on Security of Radioactive Material
26	154	D. Dimitrov	Bulgaria	International cooperation in HRD (Master programme in Nuclear Security)
32	13	M. Wisniewska	Poland	Self-Assessment of Nuclear Security Culture In Polish Medical Facility
38	31	K. Tun	Myanmar	Strengthening Sustainability and Effectiveness for Security of Radioactive Material by Promoting International Cooperation and Domestic Interfaces in Myanmar
44	57	V. Okoye	Nigeria	Detecting Criminal/Unauthorized Acts Involving Nuclear and other Radioactive Material out of Regulatory Control
48	109	D. Pavlicevic	Montenegro	The Way Forward for Prevention and Detection
55	130	A. Adail	Egypt	Strengthen of Physical Protection Regimes for Radiological Facility
60	183	M. Cervera	USA	US NRC's Evaluation for Category 3 Sources: Is Increased Protection and Accountability Necessary?
66	212	I. Ramos	Ecuador	Formulation of a Regulatory Plan for the Control of Security
67	262	N. Elsalamouny	Egypt	Nuclear Security in developing countries

<i>Poster Station</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
71	149	X. Pazmiño	Ecuador	Strengthening of Integrated Operational Procedures for the Detection of Radioactive Material at Border from the Binational Perspective.
16:15–16:30				
6	17	C. Zaw	Myanmar	Physical Protection System for Gamma Chamber 5000 in Myanmar
14	36	S. Sihana	Indonesia	Development of Course Module on Detection Systems for Radioactive Material for Graduate Program at Universitas Gadjah Mada
17	112	O. Hakam	Morocco	Importance of Security Culture with regards to Radioactive Sources
27	39	H. Elkhatab	Egypt	Evaluation of Security Measures during Transportation of Radioisotope Material from Radioisotope Production Facility
37	86	J. Zarling	USA	Pursuing Adaptable Partnerships: Expanded Government Engagements in the U.S. for Secure End-of-Life-Management of Radioactive Sealed Sources
42	68	S. Tantideeravit	Thailand	Thailand's Development of Regulatory Infrastructure for Transport Security
45	148	J. Zarling	USA	Incorporating Security into the Design and Transportation of Type B Packaging: Lessons Learned and Best Practices
54	196	R. Menya	Uganda	Cradle to Grave Control of Sealed Radioactive Sources in Uganda
56	246	E. Eisawy	Egypt	Enhancing Security during Transport of Radioactive Material
61	269	S. Surachmat	Indonesia	The Legal Basis for Combating Nuclear Terrorism in Indonesia
69	37	N. Yusuf	Indonesia	Overview Implementation of Radioactive Source Security Regulation on Radioisotope Production Facilities in Indonesia
72	132	C. Stinson	USA	The Maintenance Management Plan: The Key to Sustainable Systems
75	150	H. Yuwana	Indonesia	National Detection Strategy for Nuclear Security Detection Architecture – Case Study Indonesia

Thursday, 6 December 2018

16:30–18:30 Technical Session 4F:

Risk and Threat

(Board Room B/M1)

Chairperson: S. Zhurin, Russian Federation

IAEA Technical Officer: K. Horvath

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA–CN–269–</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:30–16:40	10	A. Sfetsos	Greece	Prioritizing Security Risks in Research Reactors
16:40–16:50	65	C. Potter	USA	Radiological Threat: Where We've Come from and a Path to the Future
16:50–17:00	94	D. Ek	USA	Risk Informed Approach for Nuclear Security Measures for Radioactive Material Under Regulatory Control
17:00–17:10	108	M. Ladd	USA	Risk Context for Radiological Material: How to Assess Threats and Consequences
17:10–17:20	205	J. Adduci	USA	Malicious Use of Radioactive Materials as Radiological Dispersion or Radiological Exposure Devices: A Historical Review
17:20–17:30	377	D. White	USA	National Threat Assessment for Radioactive Materials
17:30–17:40	325	M. Medić	Croatia	Threat Assessment and Development of DBT in Croatia

18:30

Thursday, 6 December 2018

16:30–18:30 **Technical Session 4G:**

Regulatory Function

(Conference Room M2)

Chairperson: **S. Lin, People's Republic of China**

IAEA Technical Officer: **F. Liu**

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
16:30–16:40	73	S. Shah	Pakistan	Regulatory Inspections of Radioactive Materials-Relationship with Licensing and Enforcement Process
16:40–16:50	96	M. Mogahed	Sudan	Sudanese Development of Sustainable Nuclear Security Detection Capability
16:50–17:00	337	P. Gizowska	International Atomic Energy Agency	Enhancing National Regulatory Frameworks for the Security of Radioactive Material in Africa
17:00–17:10	318	F. Elsis	Egypt	Criminalization and its Impact in the Egyptian Nuclear and Radiation Law
17:10–17:20	140	F. Morris	USA	Eliminating the Target – Regulatory Incentives for Alternative Technologies to Radioactive Sources
17:20–17:30	1	H. Barke	Niger	Reglementation of Radioactive Materials in Niger
18:30				

Friday, 7 December 2018

09:00–10:30

Panel Session 5:

**Sustainability of National Nuclear Security
Regimes**

(Board Room B/M1)

Moderator:

E. Melamed, USA

**IAEA Technical
Officer:**

D. Smith

INVITED SPEAKERS

Time

Name of Speaker

F. De Lemos, Brazil

National Nuclear Energy Commission

R. Duguay, Canada

Canadian Nuclear Safety Commission

Z. Hassan, Egypt

Egyptian Nuclear and Radiological
Regulatory Authority

N. Ramamoorthy, India

Formerly of Bhabha Atomic Research Centre

K. Khairul, Indonesia

National Nuclear Energy Agency of Indonesia

R. Downes, UK

King's College London

F. Morris, USA

US Department of Energy

10:30–11:00

Coffee / Tea Break

Friday, 7 December 2018

11:00–12:30 **Technical Session 5A:**
Coordination and Communication Bodies
(Board Room B/M1)

Chairperson: **N. Bello, Nigeria**

IAEA Technical Officer: **J. Conner**

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	278	E. Kovacs-Szeles	Hungary	Main Outcome of the Fierce Falcon GICNT Radiological Source Security and Theft Response Workshop Organized in Hungary
11:10–11:20	298	N. Ishak	Malaysia	Proposing an Informal Radioactive Communication Network on Voluntary Basis Between Counter-Terrorism Officers and the License Holders
11:20–11:30	172	D. Donnelly	USA	Effective Inter-Organizational Coordination for Response to Nuclear Security Events Involving Radioactive Sources: Exemplary National Practices
11:30–11:40	299	P. Gan	Malaysia	Malaysia's Experience in Enhancing National Concept of Operation to address Cross Cutting Nuclear Security Needs
11:40–11:50	264	M. Hossain	Bangladesh	Impact of Nuclear Information and Cyber Response Team Building on the Security of Radioactive Materials
11:50–12:00	305	M. Seshadri	India	Communication Strategy following Radiological Threats / Emergencies
12:30–13:00	Coffee / Tea Break			

Friday, 7 December 2018

11:00–12:30 **Technical Session 5B:**
Human Resource Development
(Board Room A)

Chairperson: **T. Matikas, Greece**

IAEA Technical Officer: **D. Nikonov**

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	181	J. Garces	Ecuador	Training Project for First Police Response to Chemical, Biological, Radiological or Nuclear Threats
11:10–11:20	287	P. Mallawa Arachchige	Sri Lanka	Human Resource Development
11:20–11:30	361	F. Da Silva	Brazil	Knowledge Management: The Tool of the Conceptual Map in the Evaluation of a Seminar on Safety and Security
11:30–11:40	374	K. Mayer	European Commission - Joint Research Centre	The EC-US 2018 Counter Nuclear Smuggling Workshop in Karlsruhe – Outcomes and Findings -
11:40–11:50	76	I. Khan	Pakistan	Pakistan's Approach for Development of Human Resource for Secure Management of Radioactive Sources
11:50–12:00	53	C. Hobbs	UK	Human Resource Development in Radiological Security for an International Audience: Lessons from the UK's Experience
12:30–13:00	Coffee / Tea Break			

Friday, 7 December 2018

11:00–12:30 **Technical Session 5C:**

Exercises

(Conference Room M2)

Moderator: **R. Asaba, Uganda**

IAEA Technical Officer: **J. Swarthout**

CONTRIBUTED PRESENTATIONS

<i>Time</i>	<i>No. of Paper IAEA-CN-269-</i>	<i>Name of Presenter</i>	<i>Designating Member State/Organization</i>	<i>Title of Paper</i>
11:00–11:10	93	M. Snell	USA	Development of Physical Protection Measure Performance Data for Radioactive Material Facilities
11:10–11:20	189	J. Manion	USA	Tools for Promoting Sustainability: Tabletop Exercises, Site Security Plans, and Standard Operating Procedures
11:20–11:30	186	R. Chatelus	USA	The Value of Nuclear Security Simulation Exercises
11:30–11:40	254	H. Toivonen	Finland	Scenario-based Learning to Manage Nuclear Threats in Virtual Electronic Environment
11:40–11:50	217	D. Linville	USA	Lessons Learned from implementing an Exercise Program for Ukrainian Border Guards
12:30–13:00	Coffee / Tea Break			

Friday, 7 December 2018

13:00–14:00

Closing Session

(Board Room B/M1)

**HE Ms Maria Assunta Accili Sabbatini,
Italy**

Conference co-President

Summary of the Conference

Ms Ndeye Arame Boye Faye, Senegal

Conference co-President

Summary of the Conference

Mr Juan Carlos Lentijo, IAEA

Deputy Director General,
Department of Nuclear Safety and Nuclear
Security

Closing Remarks by the IAEA

SCHEDULE OF SIDE EVENTS

Monday, 3 December 2018

12:45–13:45 Incident and Trafficking Database (ITDB)
Overview

Organized by the IAEA Department of Nuclear Safety and Security

The Incident and Trafficking Database (ITDB) is the IAEA's information system for incidents of illicit trafficking and other unauthorized activities and events involving nuclear and other radioactive material that is out of regulatory control. For more than 20 years, participating States have exchanged information in support of their efforts to prevent, detect and respond to nuclear security events and to strengthen nuclear security globally. In this side event, the IAEA will present the history and current operation of the ITDB and discuss some of the patterns and trends that appear among the reported incidents.

(Board Room B/M1)

12:45–13:45 Regional Frameworks to Improve Radiological Source Security Prevention and Detection Central Asia and Beyond

Organized by the Nuclear Threat Initiative (NTI)

Please join the Nuclear Threat Initiative (NTI) and the Center for Energy and Security Studies (CENESS) for a presentation of a new report describing their joint efforts to strengthen the security of radioactive sources in Central Asia. As part of these efforts, NTI and CENESS sponsored two regional workshops, with support from the Government of Canada and in cooperation with the International Atomic Energy Agency (IAEA) and the Governments of Kazakhstan and Kyrgyzstan, bringing together over 70 experts to discuss opportunities to strengthen radioactive source security in Central Asia. Participants included representatives of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, the Russian Federation, the United States, Canada, the Eurasian Economic Commission, and the IAEA. Participants from these workshops will deliver remarks on the outcomes of the regional workshops.

(Board Room A)

12:45–13:45 Approach and Tools for Oversight over the Regulation of Radiological Materials

Organized by the US Government Accountability Office (GAO)

Conducting oversight of the systems that secure radiological materials and related facilities is a key part of assuring that these materials are not acquired by those who would do us harm. Representatives from the US Government Accountability Office (GAO)—an independent, nonpartisan U.S. government agency that works for the Congress, to provide audits, reviews, and investigations of how effectively federal programs are executed—will discuss their past work on radiological security issues and how publicly reporting on system weaknesses can strengthen national security.

(Conference Room M2)

Tuesday, 4 December 2018

12:45–13:45 Demonstration of Virtual Reality Training for Emergency Preparedness and Response

Organized by the IAEA Division of Nuclear Security

The IAEA Incident and Emergency Centre (IEC) uses custom developed virtual reality training scenarios as part of its School of Radiation Emergency Management (SREM) to supplement table top exercises. The approach used by the IEC for training emergency preparedness and response aspects can also be used for training on topics related to the security of radiological material. During this side event, participants will be able to watch and experience first-hand, several of the exercise scenarios used to supplement table top exercises during the SREM. Later on that day, during the Technical Session on Current and Emerging Technology at 16:30, a presentation will be given to highlight what lessons have been learned from IEC's experience in this area and how this can be applied to focus and enhance training on nuclear security issues related to prevention and detection.

(Board Room B/M1)

12:45–13:45 Developing a Comprehensive Approach to Cs-137 Security

Organized by the World Institute for Nuclear Security (WINS)

The event will address risk mitigation efforts and approaches for enhancing the security of Cs-137-based devices in medical, research and industrial applications. It will cover both the option to strengthen the physical security of these devices (including the design and installation of in-device delay mechanisms) and the option to replace them with technologies that do not involve radioactive sources. The side event will review the role and responsibilities of the key stakeholders and provide an opportunity to identify gaps and opportunities for enhancing stakeholders' contributions to Cs-137 security. Finally, it will cover issues related to the removal and disposal of disused Cs-137 radioactive sources.

(Board Room A)

12:45–13:45 Safety and Security of Radioactive Sources: New Guidance on the Management of Disused Sources

Organized by the IAEA Division of Nuclear Security

The side event will highlight the need and direct benefit for Member States to make a political commitment to the Code and its supplementary guidance; and will provide case studies of State's successful implementation of its key provision, international cooperation and key actions, as well as promote the guidance as a key international instrument to strengthen the safety and security of radioactive sources globally.

(Conference Room M2)

Wednesday, 5 December 2018

12:45–13:45 Mixed Reality 3D Tabletop Tool with Radioactive Source Model Visualization

Organized by Sandia National Labs

Securing radioactive materials from across their life-cycle is a large collaborative effort that involves all levels of officials, policymakers, operational stakeholders, and local law enforcement. Both domestic and international cooperation is crucial to the prevention and detection of criminal/unauthorized acts involving nuclear and other radioactive materials. Gathering all parties involved in the same room to evoke communication and collaborate presents both a logistical challenge and requires a great deal of time and resources. With new and emerging technologies in mixed reality, this communication, collaboration and visualization can be done remotely and can include tools to help enhance these types of collaborative tabletop exercises. This side event will provide an interactive demonstration of the mixed reality experience.

(Outside Board Room B/M1)

12:45–13:45 Benefits of the EU-US-IAEA Cooperation through the BMWG

Organized by the Border Monitoring Working Group (BMWG)

The European Union, the International Atomic Energy Agency, and the United States government will co-organise a side event to discuss the important work of the Border Monitoring Working Group. This side event will serve to highlight the importance of international cooperation through coordinated efforts, strengthening the global capacity to combat the illicit trafficking of nuclear and other radioactive materials.

(Board Room A)

12:45–13:45 INFCIRC 910 - A Global Tool for Radioactive Source Security

Organized by representatives of the United States, Germany and France

Highlighting INFCIRC 910 and the Ad Hoc Working group on Alternative Technologies, this event will explore Member States commitments and challenges to enhancing the security of high radioactive sources, and include an exchange of lessons learned, experiences and success stories through the presentation of an interactive video on INFCIRC 910 and the Ad Hoc Working group on Alternative Technologies. This will be followed by an open discussion with panelists, including leaders from Permanent Missions, the nuclear industry and academia.

(Conference Room M2)

Thursday, 6 December 2018

12:45–13:45 Innovative Approaches to Locating Orphaned Radioactive Sources

Organized by the James Martin Center for Nonproliferation Studies (CNS)

The purpose of this side event is to inform relevant national regulatory bodies and other stakeholders, especially from developing countries, about an innovative methodology which CNS has developed to help governments locate and recover orphaned radioactive sources. Inspired by the success of this project launched in the Republic of Moldova in 2016, CNS has initiated a similar project in the Republic of Georgia in 2017.

The side event will include a panel (40 minutes) followed by a Q&A session (20 minutes). Invited panellists will include representatives from CNS, Moldova, and Georgia who will share their experience of using this methodology in tracking down orphaned radioactive sources.

(Board Room A)

12:45–13:45 Protecting Computer Based Systems in Nuclear Security Regimes

Organized by the IAEA Division of Nuclear Security

The side event will include a hands-on demonstration of the exercises and training conducted as part of the inaugural ITC Protecting Computer Based Systems In Nuclear Security Regimes. Specifically, the side event will include a demonstration of computer security concerns associated with operational technologies employed at nuclear and other radioactive material facilities and operations. The focus of the demonstration will be on protecting physical protection systems from cyber attack.

The demonstration will illustrate the impact of a potential cyber compromise of an access control system, and will be built from the exercises and lectures given at the ITC and other IAEA computer security training courses.

(Conference Room M2)

IAEA PUBLICATIONS RELATED TO THE SUBJECT OF THE CONFERENCE

IAEA Nuclear Security Series No.1 (2006) Technical and Functional Specifications for Border Monitoring Equipment

IAEA Nuclear Security Series No. 6 (2007) Combating Illicit Trafficking in Nuclear and Other Radioactive Material

IAEA Nuclear Security Series No. 7 (2008) Nuclear Security Culture

IAEA Nuclear Security Series No. 9 (2008) Security in the Transport of Radioactive Material

IAEA Nuclear Security Series No. 11 (2009) Security of Radioactive Sources

IAEA Nuclear Security Series No. 13 (2012) Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5)

IAEA, Nuclear Security Series No. 14 (2011) Nuclear Security Recommendations on Radioactive Material and Associated Facilities

IAEA Nuclear Security Series No.15 (2011) Nuclear Security Recommendations on Nuclear and Other Radioactive Material out of Regulatory Control

IAEA Nuclear Security Series No. 20 (2013) Objective and Essential Elements of a State's Nuclear Security Regime

IAEA Nuclear Security Series No. 21 (2013) Nuclear Security Systems and Measures for the Detection of Nuclear and Other Radioactive Material out of Regulatory Control

IAEA Nuclear Security Series No. 24-G (2015) Risk Informed Approach for Nuclear Security Measures for Nuclear and other Radioactive Material out of Regulatory Control

IAEA/CODEOC/2004 (2004) Code of Conduct on the Safety and Security of Radioactive Sources

IAEA/CODEOC/IMO-EXP (2012) Guidance on the Import and Export of Radioactive Sources

IAEA/CODEOC/MGT-DRS (2018) Guidance on the Management of Disused Radioactive Sources

STI/PUB/1160 (2003) Handbook on Nuclear Law

PARTICIPATION IN IAEA SCIENTIFIC CONFERENCES

Governments of Member States and those organizations whose activities are relevant to the conference subject matter are invited to designate participants. In addition, the IAEA itself may invite a limited number of scientists as invited speakers. Only participants designated or invited in this way are entitled to present papers and take part in the discussions.

Scientists interested in participating in any of the IAEA conferences should request information from the Government authorities of their own countries, in most cases the Ministry of Foreign Affairs or national atomic energy authority.

PUBLICATIONS

Proceedings

The proceedings of the conference containing all presentations and posters delivered at the conference, as well as the findings and recommendations, will be published by the IAEA as soon as possible after the conference.

Orders

No registration fee is charged to participants but they are encouraged to order for themselves or on behalf of their supporting organization at least one copy of the proceedings. These can be obtained at a special price representing half the estimated sales price provided that they are ordered and paid for during the conference at the Conference Desk.

Other IAEA Publications

All IAEA publications may be ordered directly from the Sales and Promotion Unit,
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P.O. Box 100, A-1400 Vienna, Austria.
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Email: sales.publications@iaea.org
Internet: <http://www.iaea.org/books>

FORTHCOMING SCIENTIFIC CONFERENCES SCHEDULED BY THE IAEA

2018

International Symposium on Understanding the Double Burden of Malnutrition for Effective Interventions (CN-268)
10–13 December, Vienna, Austria

2019

International Symposium on Isotope Hydrology (CN-271)
20–24 May; Vienna Austria

International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (IDOS 2019) (CN-273)
18–21 June; Vienna, Austria

International Conference on the Management of Spent Fuel from Nuclear Power Reactors: Learning from the Past, Enabling the Future (CN-272)
24–28 June, Vienna, Austria

Scientific Forum (CN-274)
September; Vienna, Austria

International Conference on Climate Change and the Role of Nuclear Power (CN-275)
7–11 October; Vienna, Austria

International Symposium on Trends in Radiopharmaceuticals (ISTR-2019) (CN-276)
28 October–1 November; Vienna, Austria

International Conference on Effective Regulatory Systems for Nuclear and Radiation Safety (CN-270)
4-7 November, TBC

International Conference on Research Reactors: Addressing Challenges and Opportunities to Ensure Effectiveness and Sustainability (CN-277)
25–29 November, Buenos Aires, Argentina

For information on forthcoming scientific meetings, please consult the IAEA web site: <http://www.iaea.org/meetings>

NOTES

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