



**IAEA**

International Atomic Energy Agency  
*Atoms for Peace and Development*

# Security of Radioactive Material in Use and Storage

**Online Workshop**

**“Sustainable Use of Nuclear Technology in Industrial  
Applications and Food Safety”**

*Vienna Center for Disarmament and Non-Proliferation*

*12 May 2021*

Alessia Rodriguez y Baena

Division of Nuclear Security

Department of Nuclear Safety and Security

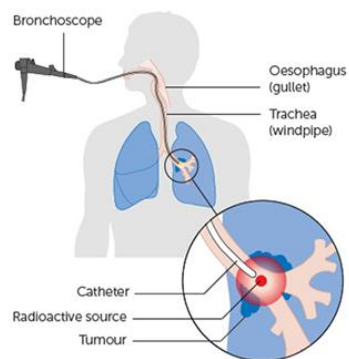
1. Introduction

2. IAEA Support to Member States

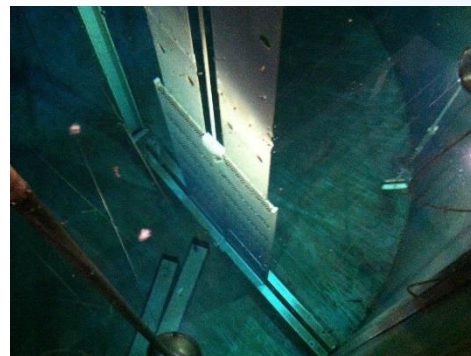
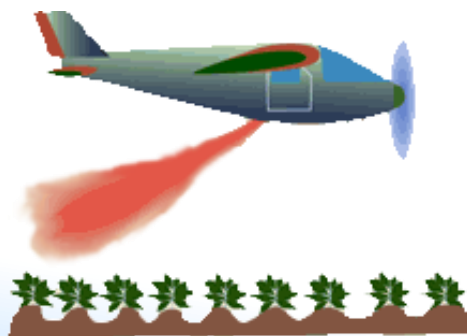
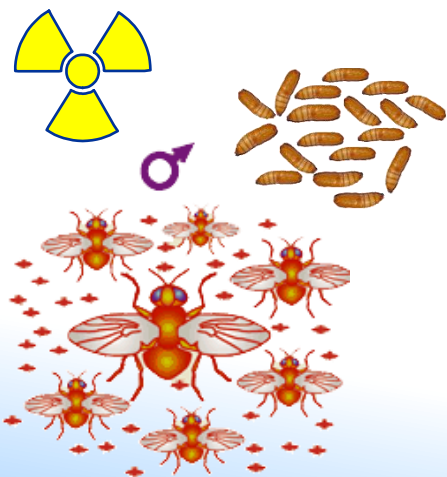
# Introduction – *Peaceful Uses*



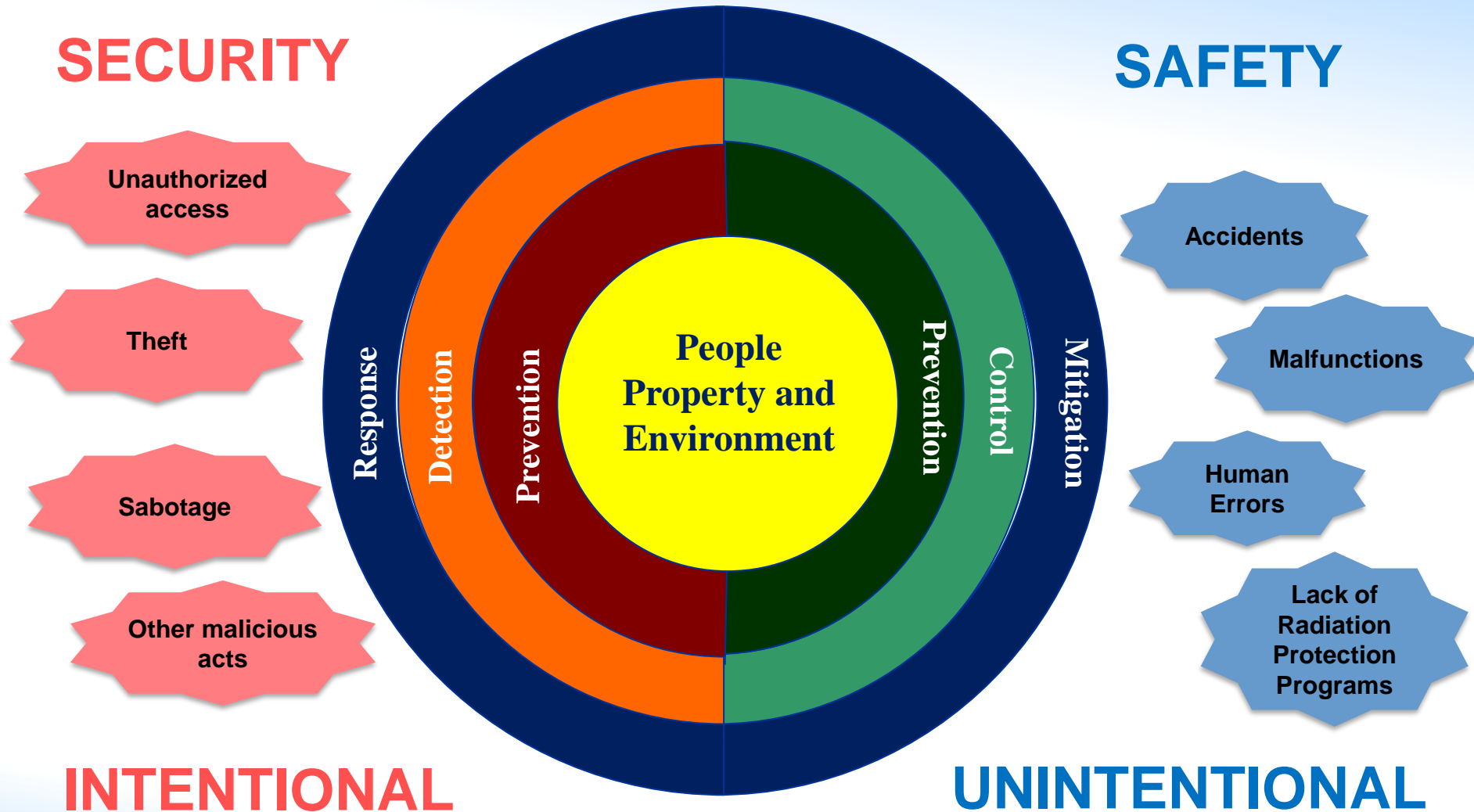
**EXTERNAL BEAM  
RADIOTHERAPY**



**BRACHYTHERAPY**



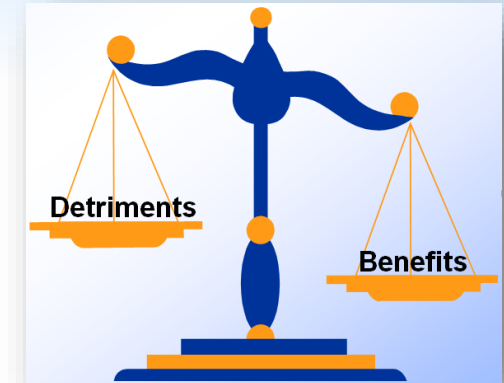
# Introduction – *Safety and Security*



**COMMON GOAL** “Protection against  
Undesirable Radiological Consequences”

# Introduction – *Balanced Approach*

Radioactive material must be **safely** and **securely used** and **managed** → benefits must be higher than possible detrimental effects



RDD\*



RED\*

\* Radiological Dispersal Device (“dirty bomb”)

\*\* Radiological Exposure Devices

# Introduction - *Nuclear Security Definition*

“Nuclear Security” means...



Prevention



Detection



Response

... theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear or other radioactive material or their associated facilities



# Introduction – *Role of the IAEA*

## Nuclear Security is a National Responsibility !

The IAEA:

- **Supports States**, upon request, in their efforts to **establish and maintain effective nuclear security** through assistance in capacity building, guidance or standards, human resource development and risk reduction
- **Facilitates adherence** to implementation of **international legal instruments** related to nuclear security

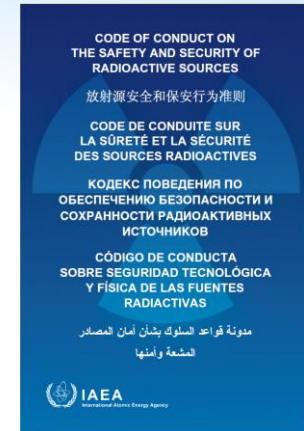
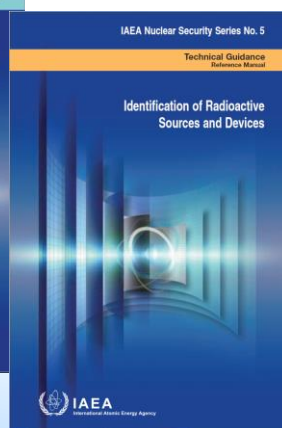
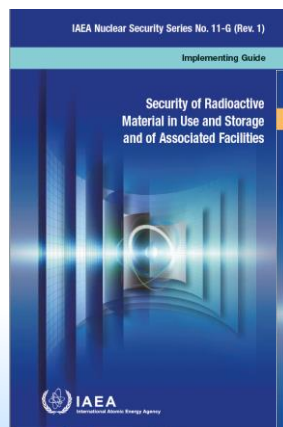
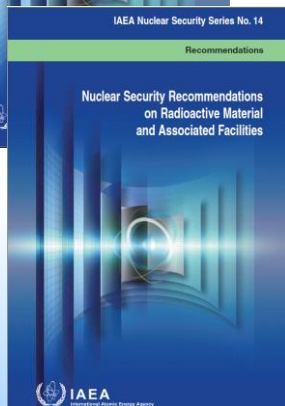
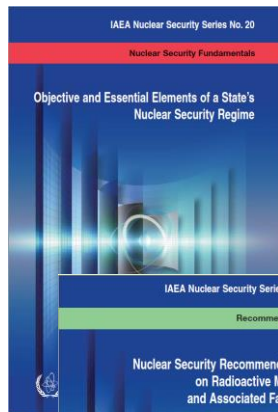


# IAEA Support – *Guidance*

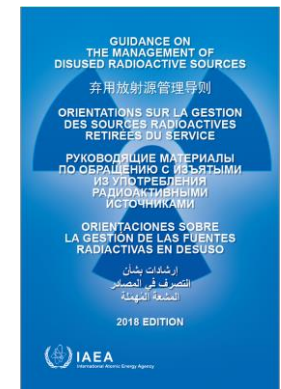
- Development and update of **guidance publications** within IAEA Nuclear Security Series and complementary documents and assistance to States in **meeting the provisions** of relevant legally and non-legally binding **international instruments**

## Nuclear Security Series

Fundamentals  
Recommendations  
Implementing Guides  
Technical Guidance



## Code of Conduct on the Safety and Security of Radioactive Sources and its **Supplementary Guidance**





# IAEA Support – Core Training

- Development and delivery of **practical, hands-on** training courses based on IAEA guidance

## Pilot Course Based on New Guidance Helps to Increase Security of Radioactive Material in Eastern Europe and Central Asia

Miklos Gaspar, IAEA Office of Public Information and Communication

JAN  
4  
2019



A pilot training course based on a new IAEA nuclear security guidance document will help increase the security of radioactive sources in countries in Eastern Europe and Central Asia. (Photo: A. Rodriguez y Baena/IAEA)

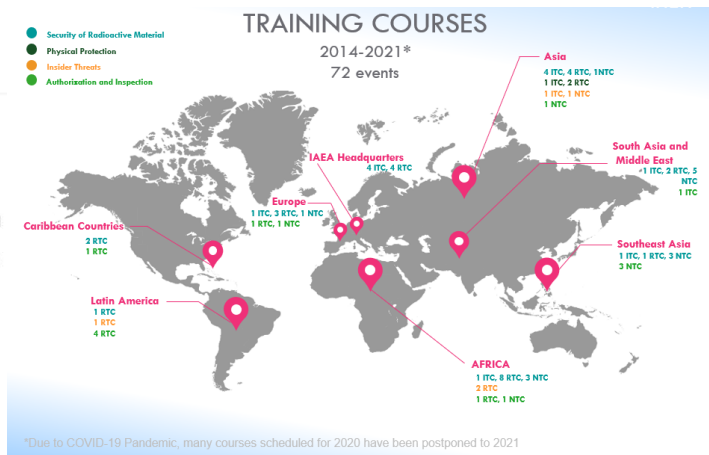
### Related Stories



Various Approaches Showcased for the Safe and Secure Management of Disused Sealed Radioactive Sources

### Related Resources

Security of Radioactive Sources



## Young Regulators Complete IAEA's First Regional Safety and Security Training Course

Lenka Dojcanova, IAEA Department of Nuclear Safety and Security

JUL  
19  
2018



### Related Stories



IAEA Advises Benin on Strengthening Regulatory Infrastructure



IAEA Advises Mozambique on Strengthening Regulatory Infrastructure



IAEA Supports African Countries to Strengthen Regulatory Infrastructure

### Related Resources

Regulatory Infrastructure  
Security of nuclear and other radioactive sources



# IAEA Support – *International Cooperation*



- Fostering **cooperation** and **dialogue** among competent authorities and other relevant stakeholders

Cooperation, Coordination, and Communication Key to Securing Radioactive Material: IAEA Conference

Inna Pletukhina, IAEA Department of Nuclear Safety and Security

DEC  
14  
2018



Looking for More: IAEA and National Experts Discuss Security of Radioactive Sources

Inna Pletukhina, IAEA Department of Nuclear Safety and Security


APR  
29  
2019



## Related Stories

- IAEA Working Group on Radioactive Source Security Fosters Experience Sharing to Enhance Nuclear Security
- Radioactive Source Security Working Group to Help Improve Security Programmes for Member States
- Better Together: IAEA Conference on Security of Radioactive Material Links Prevention and Detection



**International Conference on the Safety and Security of Radioactive Sources:**   
***Accomplishments and Future Endeavors*** (CN-295), Vienna, 20-24 June 2022

# IAEA Support – *Regulatory Infrastructure*



- Supporting regulatory bodies and competent authorities in the establishment or strengthening of their **national regulatory infrastructure for nuclear security**

*Translation of different available training courses to better address the needs across the whole continent*



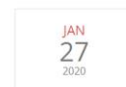
**First School on Drafting Nuclear Security Regulations for African Countries**  
(Vienna, Feb 2019)



**Pilot Regional Training Course for New Regulators in Latin America on “National Regulatory Infrastructure for the Safety of Radiation Sources and Security of Radioactive Material”**  
(Buenos Aires, April-May, 2018)

**37 Countries in Africa to Benefit from Strengthened Regulatory Infrastructure on Radiation Safety and Security of Radioactive Material**

Lenka Dojcanova, IAEA Department of Nuclear Safety and Security  
Manuel Recio, IAEA Department of Nuclear Safety and Security



Related Stories

- IAEA Holds First School on Drafting Nuclear Security Regulations for African Countries
- IAEA Supports African Countries to Strengthen Regulatory Infrastructure
- IAEA Kicks off New Phase of Project Strengthening Regulatory Infrastructure for Radiation Safety and Nuclear Security in Latin America and the Caribbean
- Back to School: IAEA hosts the Third Session of the School



**IAEA Kicks off New Phase of Project Strengthening Regulatory Infrastructure for Radiation Safety and Nuclear Security in Latin America and the Caribbean**

Lenka Dojcanova, IAEA Department of Nuclear Safety and Security



**Integrated Management System Harmonizes Radiation Safety, Security Objectives**

Joanne Liou, IAEA Office of Public Information and Communication

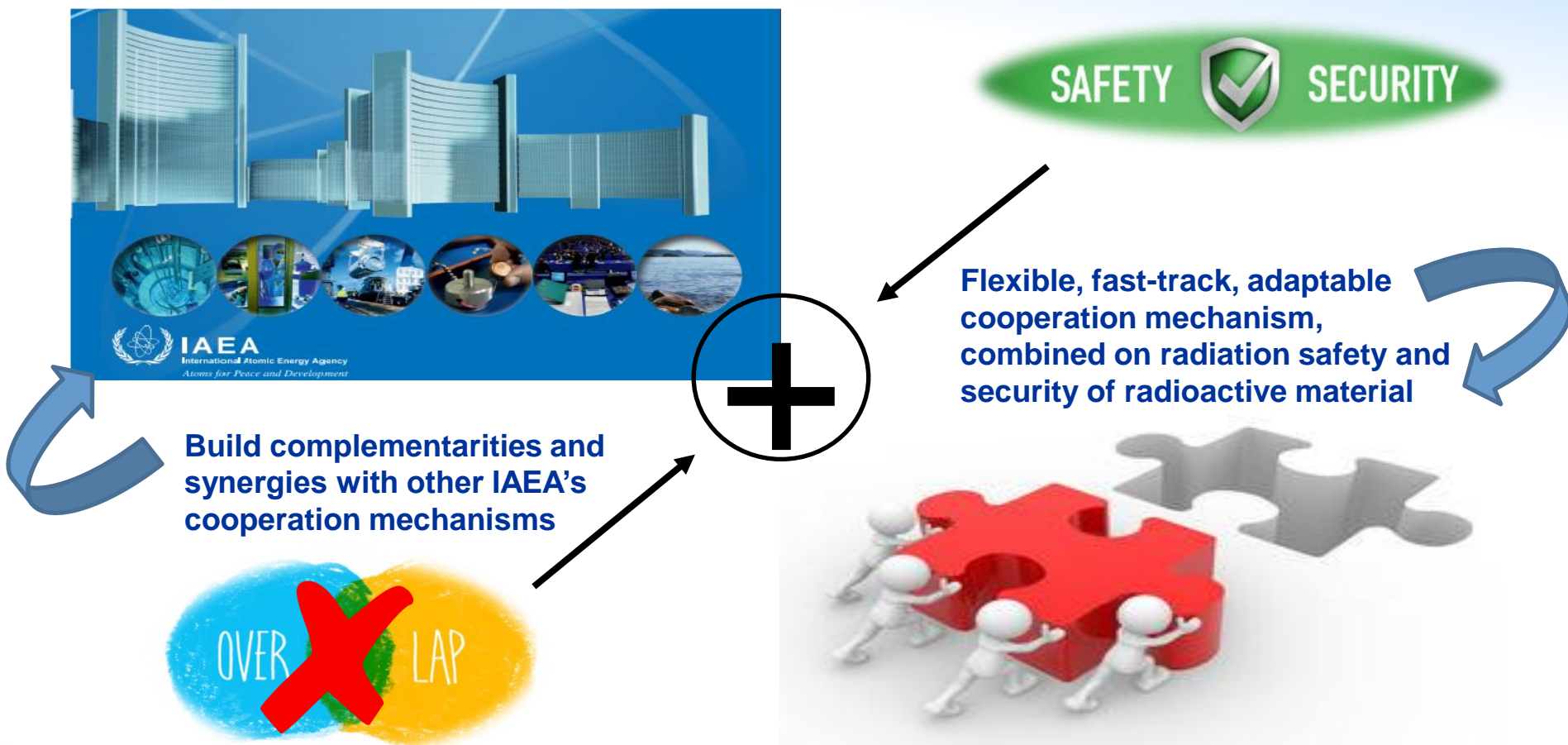


Related Stories

- 37 Countries in Africa to Benefit from Strengthened Regulatory Infrastructure on Radiation Safety and Security of Radioactive Material
- IAEA Kicks off New Phase of Project Strengthening Regulatory Infrastructure for Radiation Safety and Nuclear Security in Latin America and the Caribbean
- IAEA Advises El Salvador on Strengthening Regulatory Infrastructure



# IAEA Support – *Regulatory Infrastructure*



***IAEA “Regulatory Infrastructure Development Project” (RIDP)***

# IAEA Support – *Lifecycle Management*

- Assist States to develop plans for the **life-cycle management of radioactive sources** and to meet the provisions of relevant international instruments

## IAEA Kicks Off Multi-Regional Project on Sustainable Management of Disused Sealed Radioactive Sources

Inna Pletukhina, IAEA Department of Nuclear Safety and Security

JUN  
4  
2019



### Colombia Enhances Security of Disused Sealed Radioactive Sources

Younes El Abbadi, IAEA Department of Nuclear Safety and Security  
William Stewart, IAEA Department of Nuclear Energy

NOV  
13  
2020

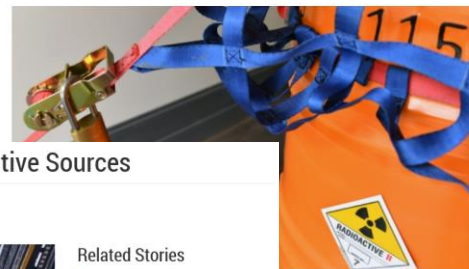


Experts dismantling a teletherapy head used for cancer care in Colombia in preparation for its safe and secure storage. (Photo: IAEA contractor)

## IAEA and Russia Kick Off Work to Manage Disused Radioisotope Thermoelectric Generators

Inna Pletukhina, IAEA Department of Nuclear Safety and Security

OCT  
15  
2019



### Related Stories

- IAEA Kicks Off Multi-Regional Project on Sustainable Management of Disused Sealed Radioactive Sources
- Fostering Cradle-to-Grave Management of Radioactive Sources: Interregional Project Concludes, Paving the Way for Future Activities
- IAEA Helps Countries Build Knowledge on Safely Disposing Disused Sealed Radioactive Sources
- IAEA Guidance on Managing Disused Radioactive Sources Now Available

## IAEA Facilitates Safe and Secure Removal of Disused Sealed Radioactive Source in Bahrain

Sarah Henry, IAEA Department of Nuclear Safety and Security

APR  
1  
2021



The DSRS packed in the licensed container ready for international transport. (Photo: IAEA Contractor)

### Related Stories

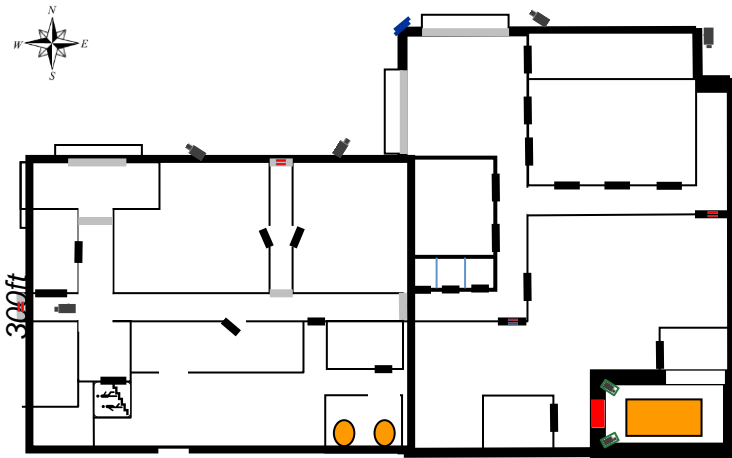
- Colombia Enhances Security of Disused Sealed Radioactive Sources
- Security of Radioactive Sources Enhanced by the Republic of the Congo with Assistance from the IAEA
- European Regulators Assess Near Implementation of the Guidance on the Management of Disused Radioactive Sources
- Enhancing Cradle-to-Grave Management of Radioactive Sources Worldwide

### Related Stories

- IAEA Kicks Off Multi-Regional Project on Sustainable Management of Disused Sealed Radioactive Sources
- IAEA Kicks Off New Phase of Project Strengthening Regulatory Infrastructure for Radiation Safety and Nuclear Security in Latin America and the Caribbean
- Wider Implementation of IAEA Code of Conduct to Enhance Safety and Security: Review Meeting Concludes

# IAEA Support – Security Systems

- Assist States to improve the **effectiveness of security systems** (e.g., through physical protection enhancements) and security management

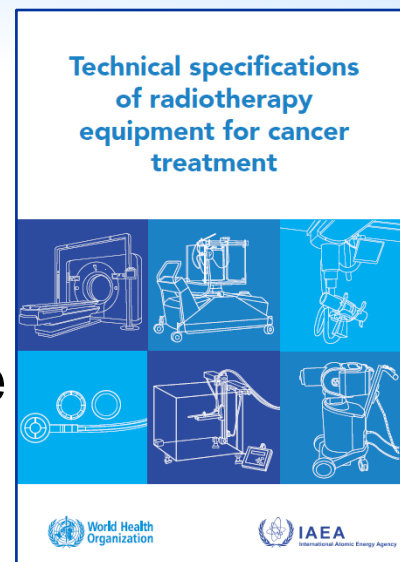


*“Strengthening Physical Protection at Facilities with High Activity Radioactive Sources in Use and Storage towards Enhancing Nuclear Security Globally”*



# IAEA Support - Cross-cutting

- Providing **expert support & advisory services** such as **International Physical Protection Advisory Service (IPPAS)**.
- Providing **technical backstopping** in the field of security of radioactive material in use and storage for **IAEA crosscutting activities/ projects** such as **TC projects** and safety-security initiatives, in a **“One-house” approach**.



WHO and IAEA to help Armenia develop cancer prevention and treatment strategy



provide services for the treatment of cancer.

YEREVAN, April 10. /ARKA/. Representatives of the World Health Organization (WHO) and the International Atomic Energy Agency (IAEA) have arrived in Armenia as part of the Armenia impACT Review mission, the press service of the Armenian Ministry of Health reported.

It said the purpose of the visit is to provide consulting services for the development and implementation of the national strategy to combat oncology.

According to a press report, the international experts met with the staff of the Medical Aid Policy Department of the Ministry. The mission includes discussions with health specialists, as well as visits to medical institutions that

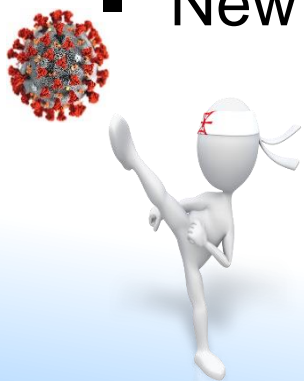


# IAEA Support – *Resilience and Innovation*

- Familiarisation with IT tools/platforms
- Additional IT equipment for virtual events
- Webinar on core-training
- Redesigned international into regional events
- Redesigned courses into virtual workshops
- Virtual preparatory seminars for face-to-face trainings
- Virtual coordination meetings → engagement
- Virtual oversight of filed operations (e.g., Bahrein and Colombia)
- New virtual workshops in lieu of expert missions

Gender  
Equality

Multi-  
lingual



***Despite unusual times  
IAEA work continues!***



[illegible]

*Thank you!*