

# Workshop on Maintaining Effective Security during the Decommissioning of Nuclear Facilities

20 and 21 November 2019. Vienna, Austria

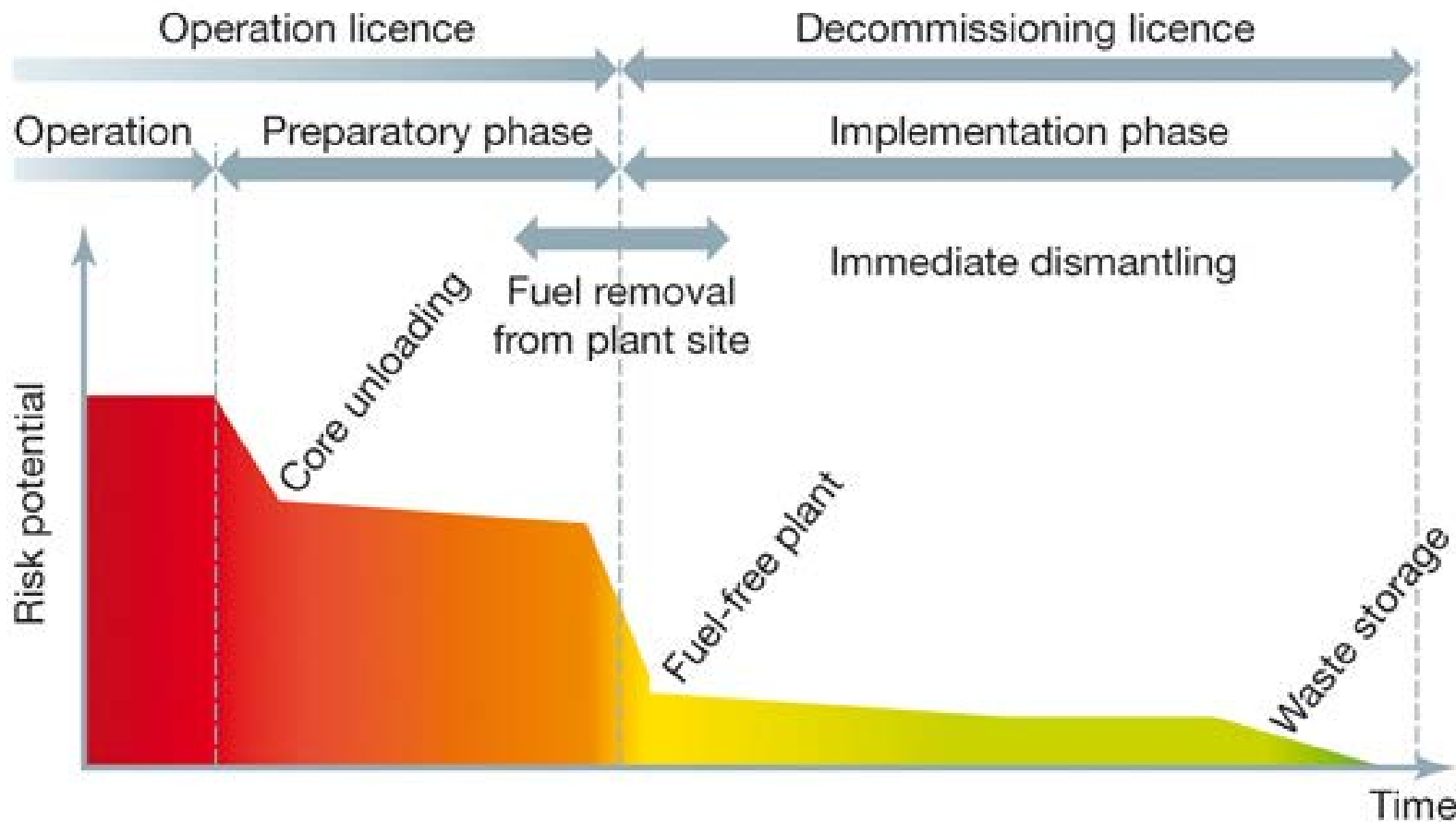
Pierre Legoux, WINS Head of Programmes

*"As of December last year, 172 nuclear energy facilities had been permanently shut down, of which 72 are under decommissioning and more than 20 have had their licences terminated. Facilities are closing in large part because of the ageing of the worldwide nuclear fleet and, as such, about 70 additional units are estimated to cease operations by 2025."*

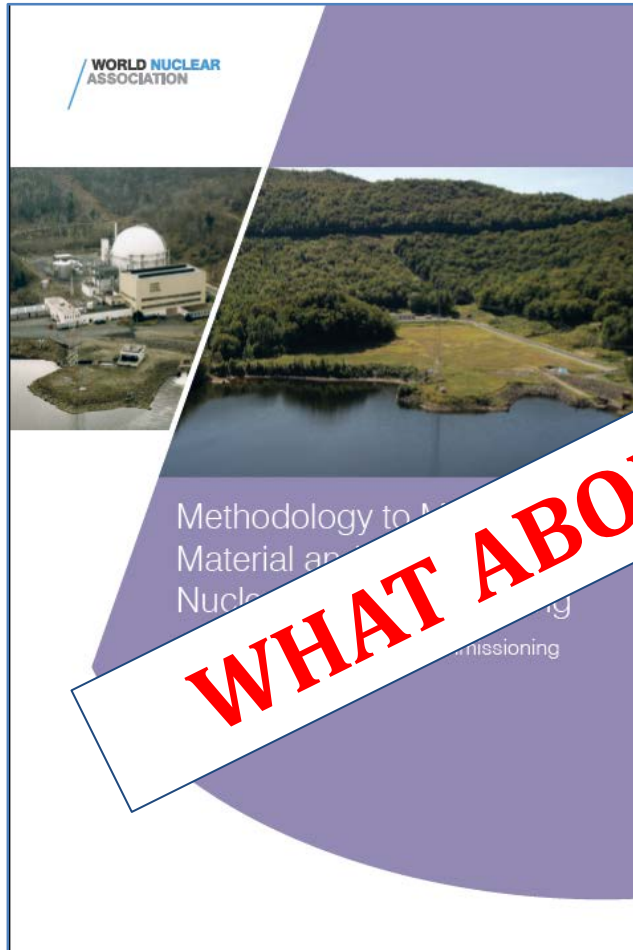
<http://www.world-nuclear-news.org/Articles/Viewpoint-The-positive-role-of-D-D>

(30 September 2019)

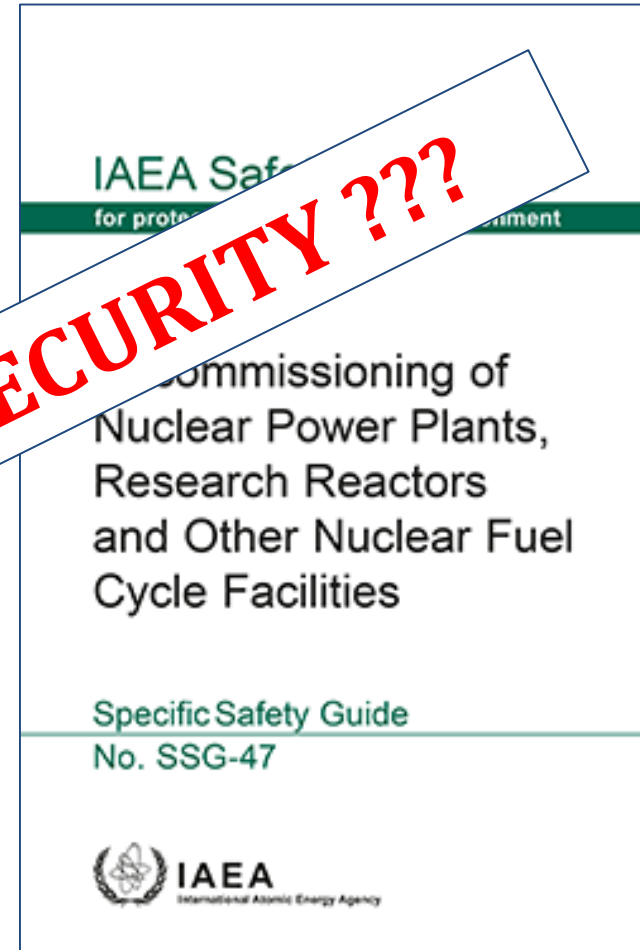
# Managing an evolving risk



# Guidance for Decommissioning

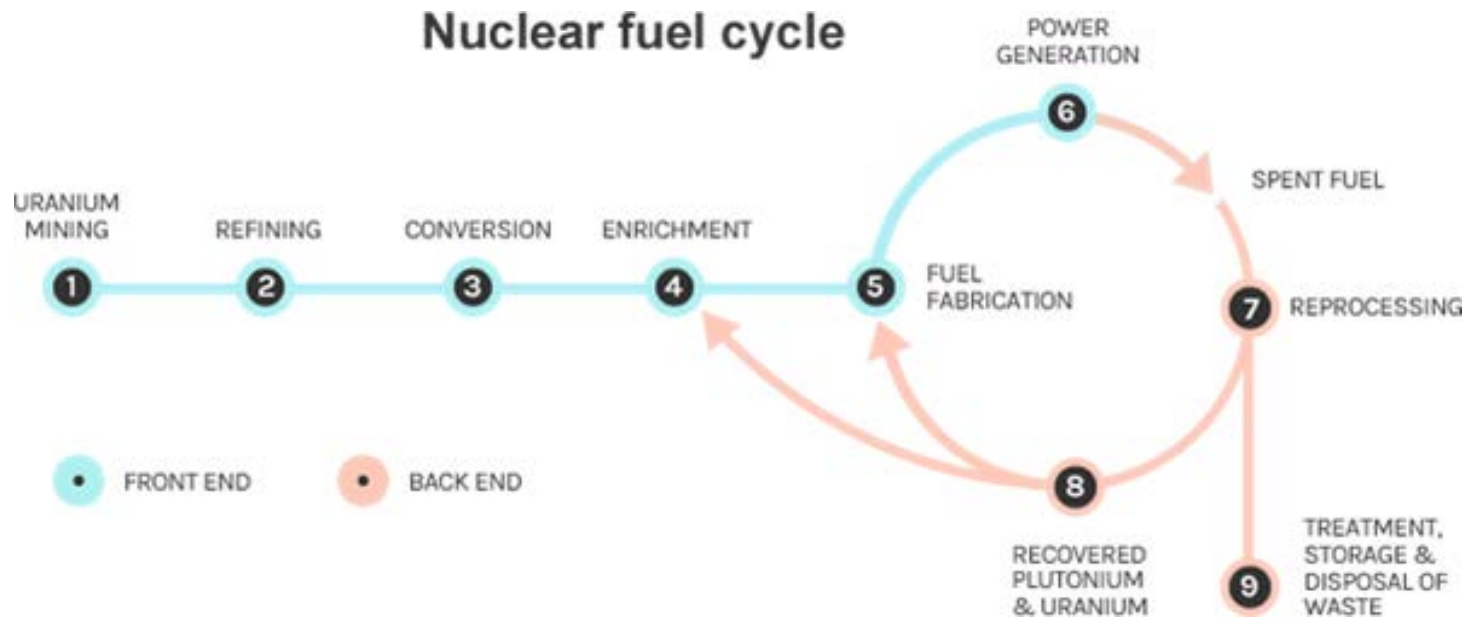


**WHAT ABOUT SECURITY ???**



## The WINS Vision

*All nuclear and other radiological materials and facilities are effectively secured by demonstrably competent professionals applying best practice to achieve operational excellence.*



## WINS Activities Supporting the Strengthening of Nuclear Security Worldwide



**Sharing Operational Experience**



**Knowledge Centre**



**Training & Certification**



**Evaluation**

# WINS Achievements

## 120+

International  
Best Practice  
Workshops



## 34

International  
Best Practice  
Guides



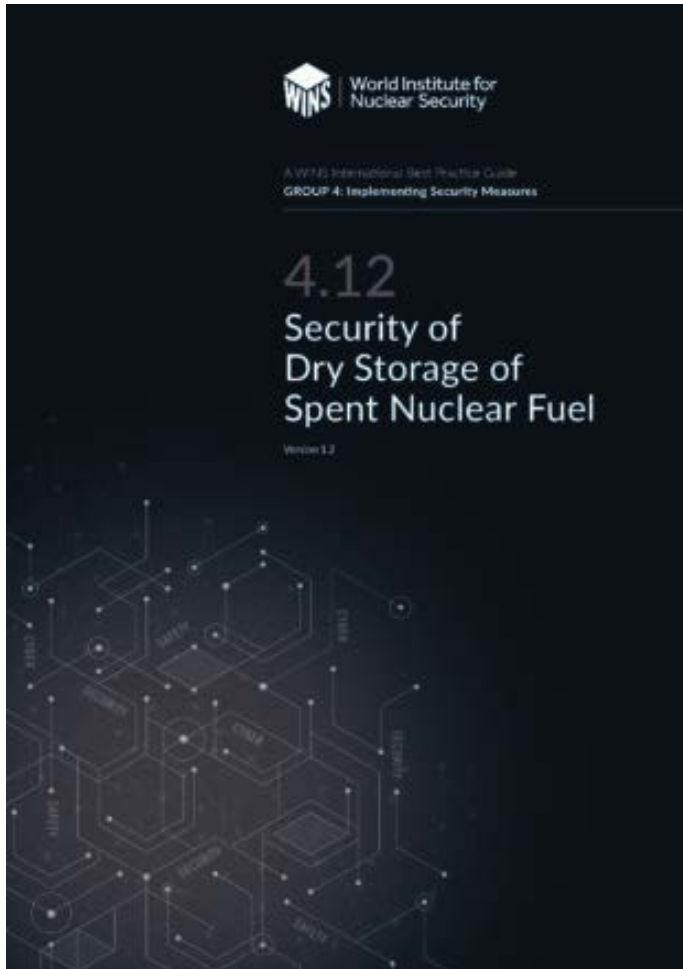
## 10

Nuclear Security  
Management  
Certification  
Modules



**WINS**Academy

# BPG 4.12 Security of Dry Storage of Spent Nuclear Fuel



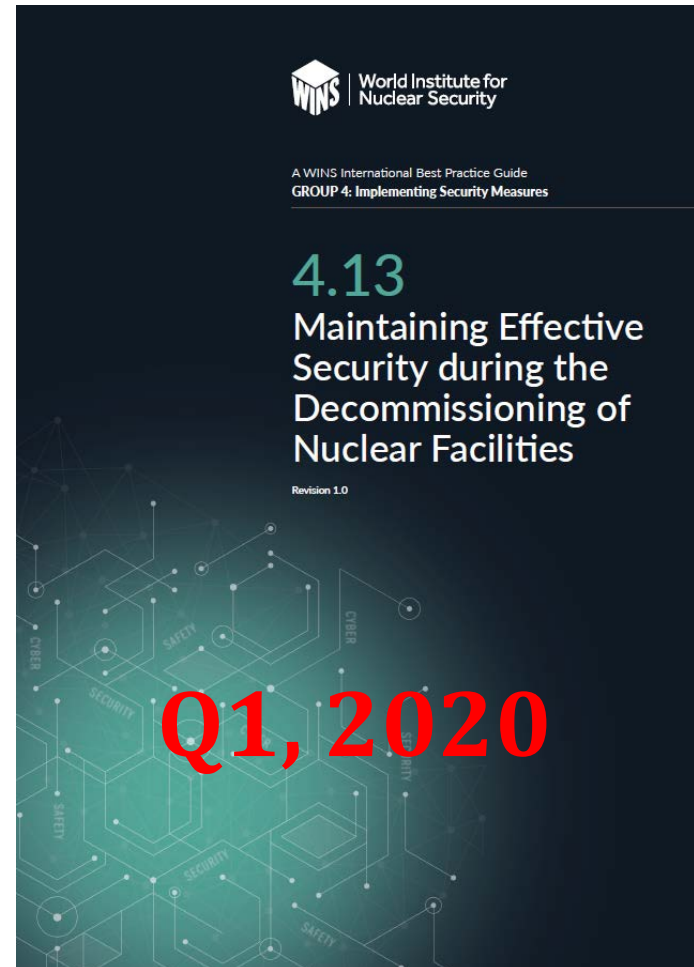
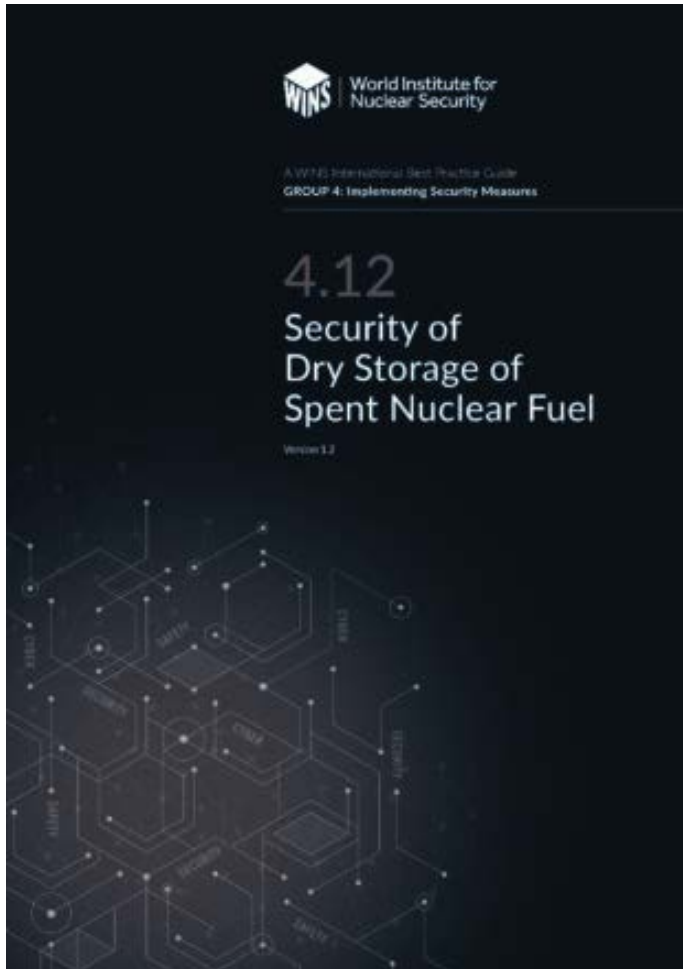
This WINS International Best Practice Guide offers practical information on how to secure dry storage facilities containing spent nuclear fuel.

The guide explains the need for interim storage of spent fuel, as well as some of the risks of dry storage. It also explains how to design and implement security at dry storage facilities by designing a security plan, planning and exercising a response, and protecting spent nuclear fuel during transport.

In addition, the guide explains the need to develop a comprehensive approach that integrates both safety and security.



# BPG 4.12 Security of Dry Storage of Spent Nuclear Fuel





The WINS Academy is the world's first international certification programme for nuclear security management.

The programme is based on a core philosophy that views security as a fundamental aspect of risk management and corporate reputation.

# Workshop Discussions

- ❑ Review the decommissioning strategies and their impact on security needs.
- ❑ Identify external and internal stakeholders and discuss their contribution
- ❑ Listen to those who are involved in decommissioning activities
- ❑ Review how organisational structures evolve during the decommissioning process and how these changes impact security
- ❑ Identify the need for security awareness and competencies amongst the workforce
- ❑ Share good practices to prevent and mitigate interferences between operations, security and safety
- ❑ Discuss further selected topics such as mitigating the insider threat, including the role of NMAC, cybersecurity and transport security

## **DAY 1 – WEDNESDAY 20 NOVEMBER 2019**

Opening: Developing a Common Understanding

Session 1: Reviewing The Decommissioning Process

Session 2: Understanding Security Risks and Challenges during Decommissioning

Session 3: Developing Proportionate Security Regulations

## **DAY 2 – THURSDAY 21 NOVEMBER 2019**

Session 4: Addressing Security Operational Challenges

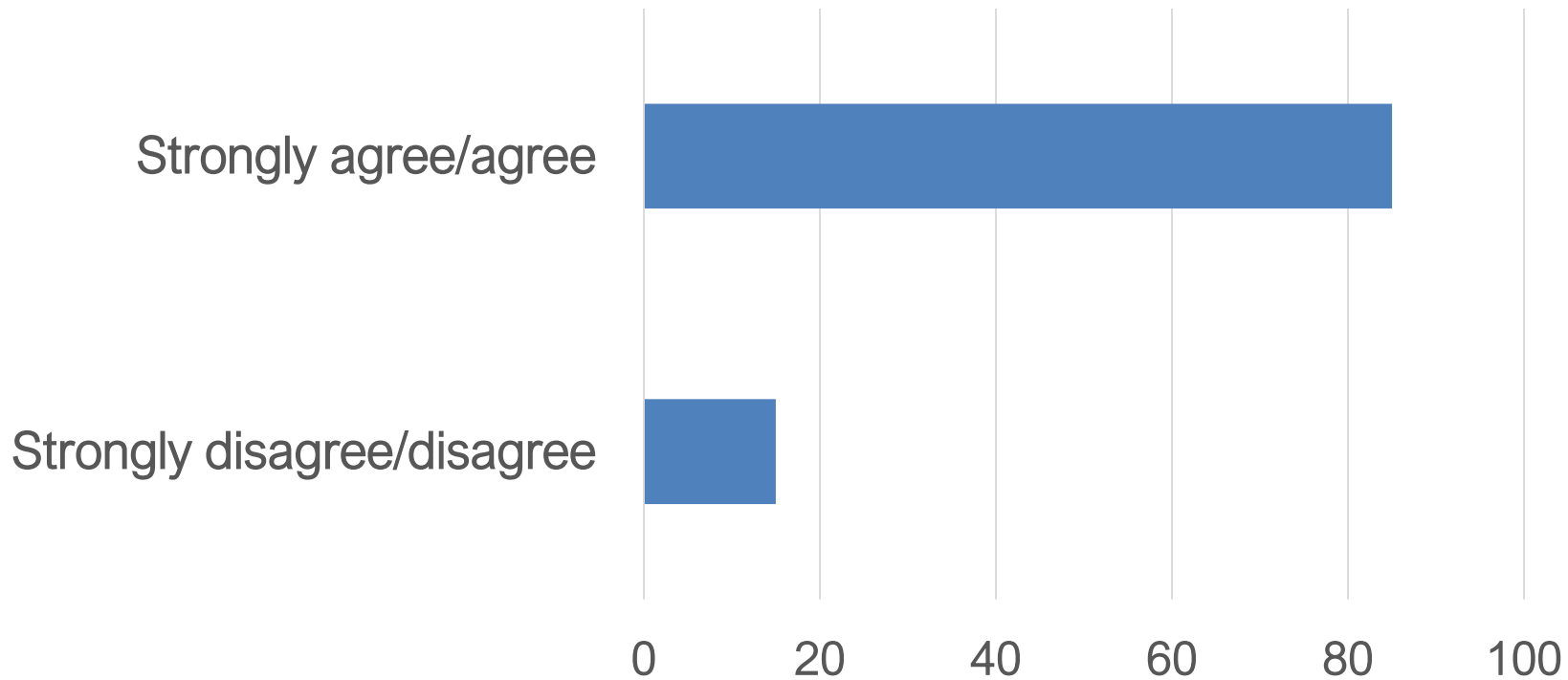
Session 5: Managing Changes In The Workforce and Organizational Structures

Closing: Key Findings and Next Steps

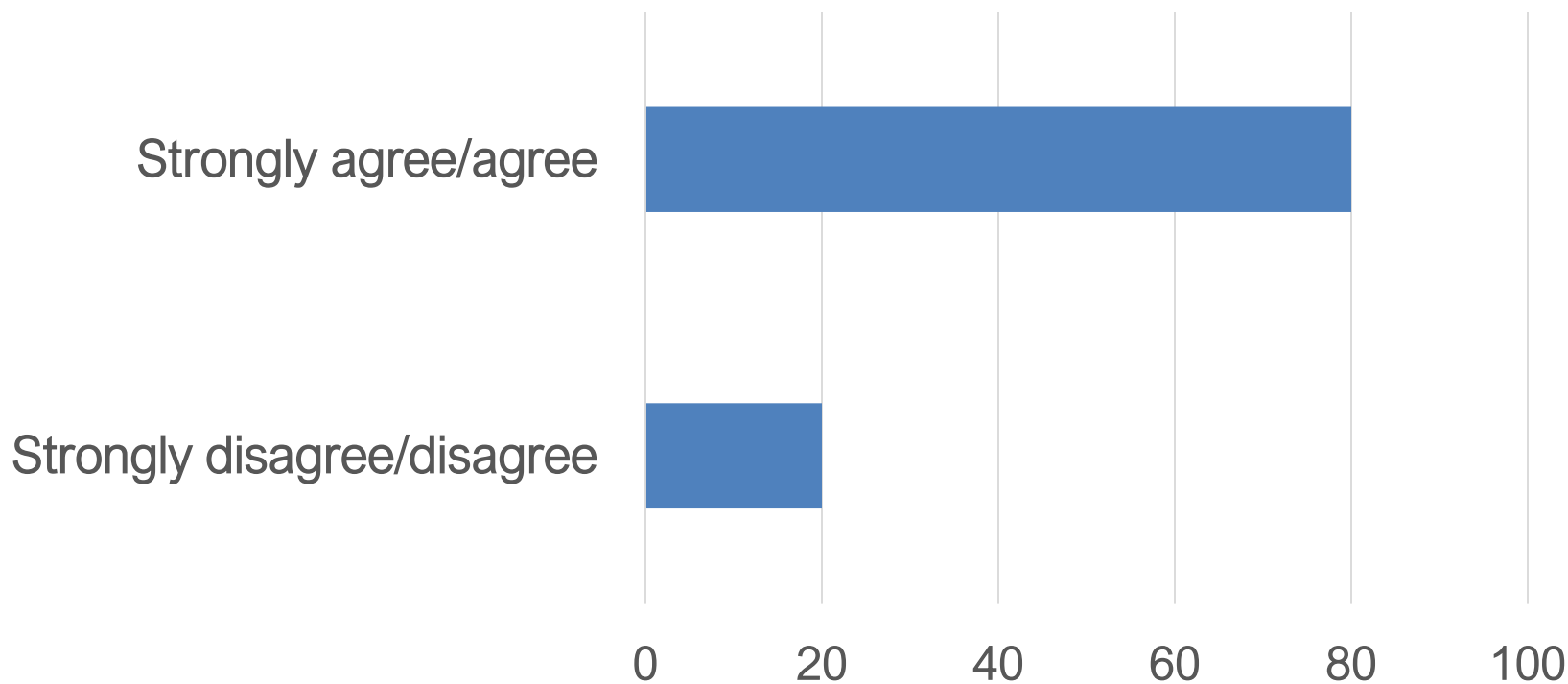
# Survey Results



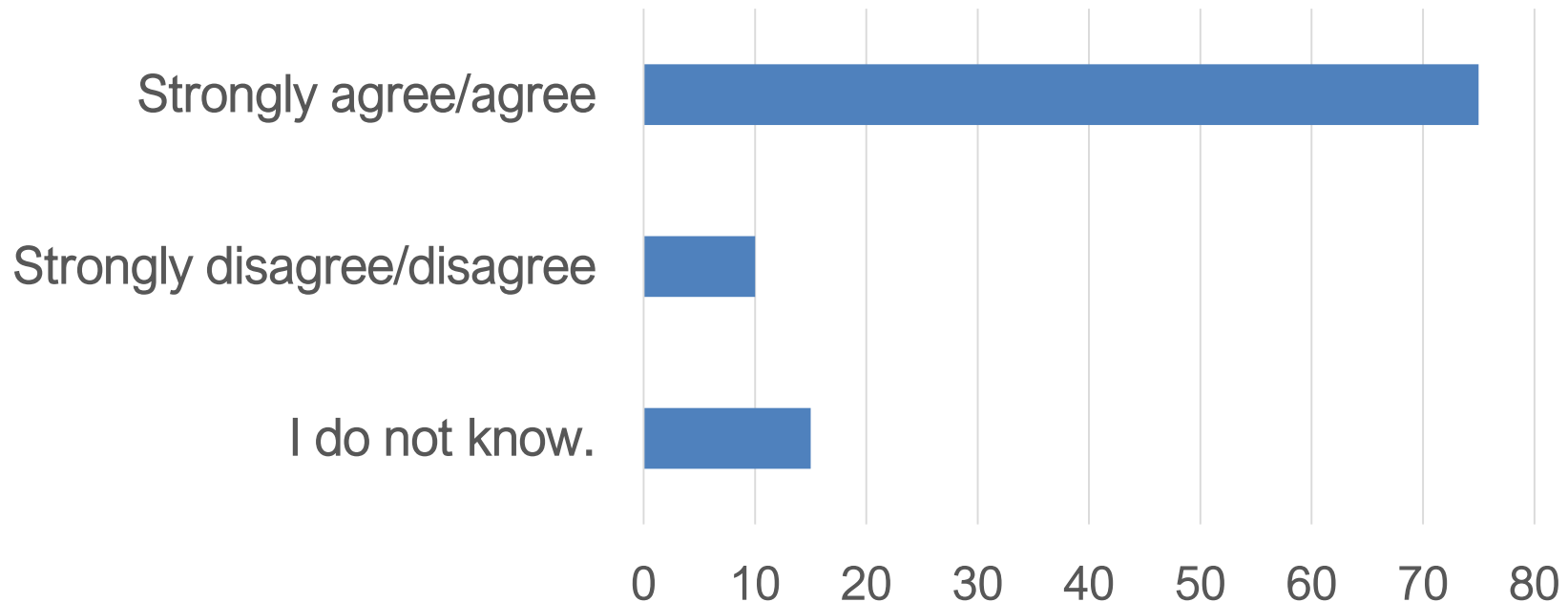
## I am familiar with the decommissioning of nuclear facilities.



I am familiar with security matters related to the decommissioning of nuclear facilities.

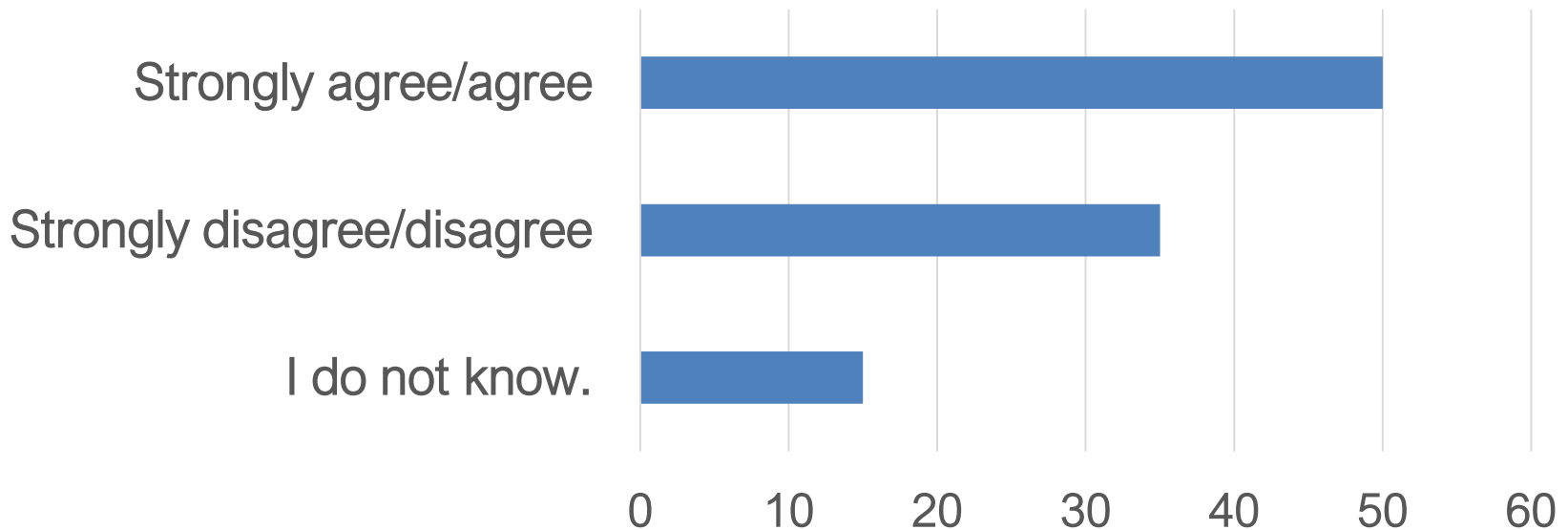


## The security measures implemented during the decommissioning process are commensurate with the evolving risk

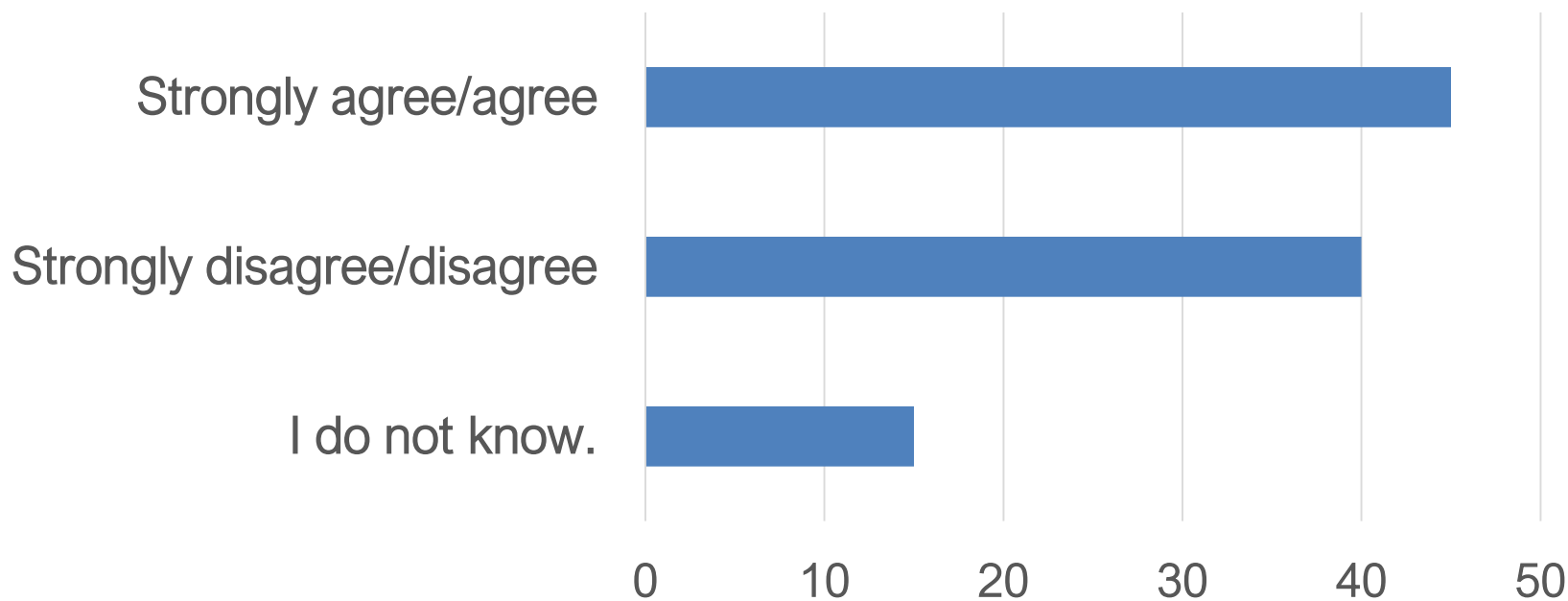




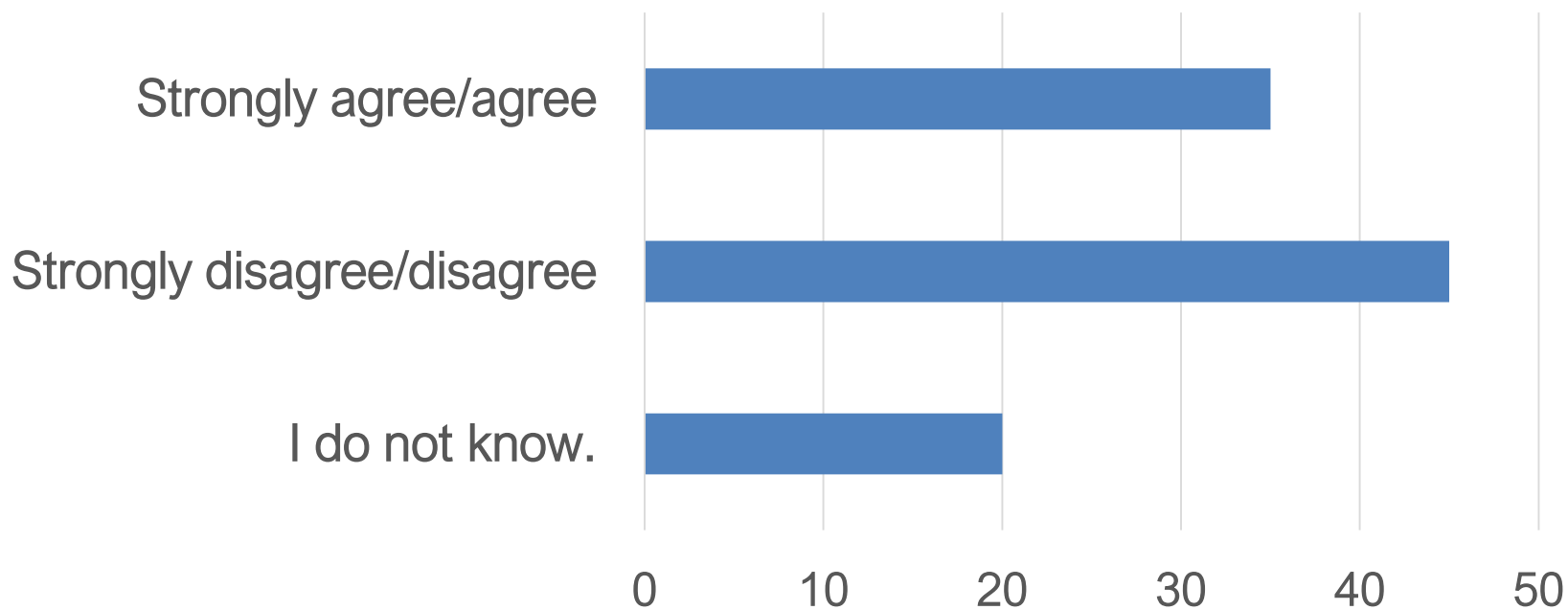
Staff involved in the decommissioning process, including engineers and technicians, have received the training they need to understand security risks and contribute to their mitigation.



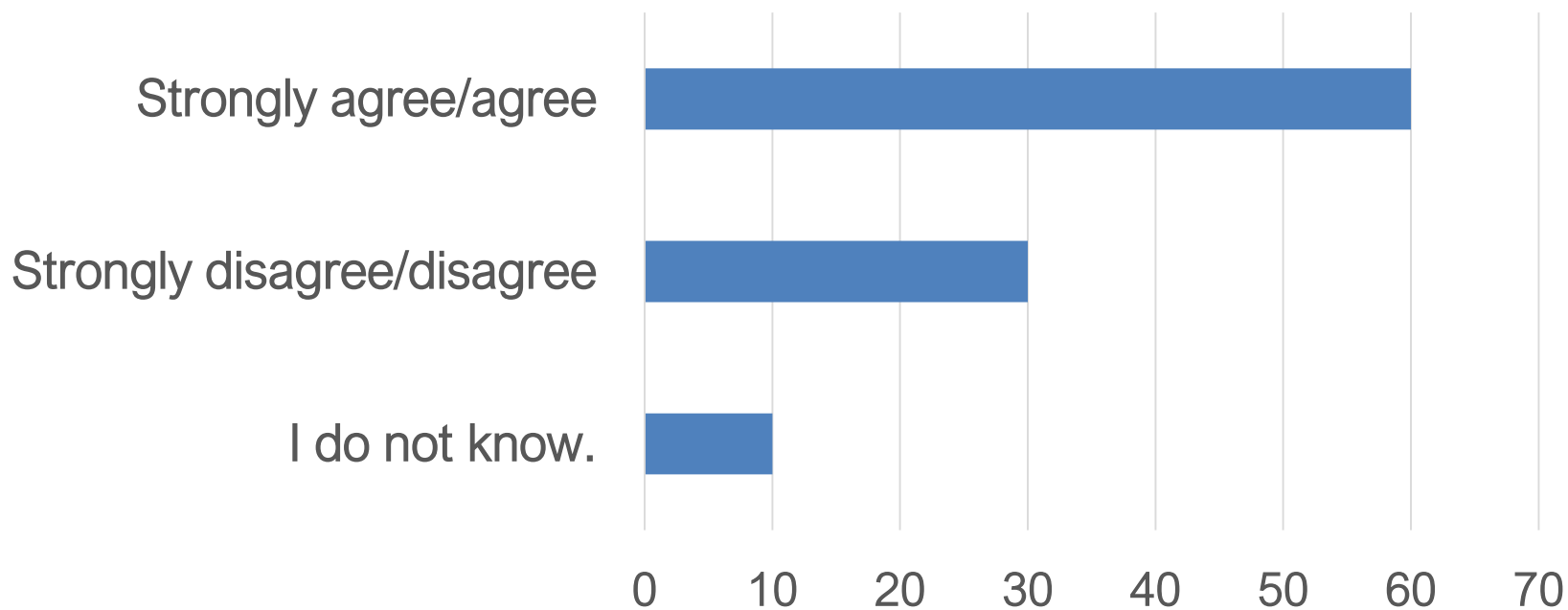
## Security matters related to decommissioning are considered during the design of new facilities.



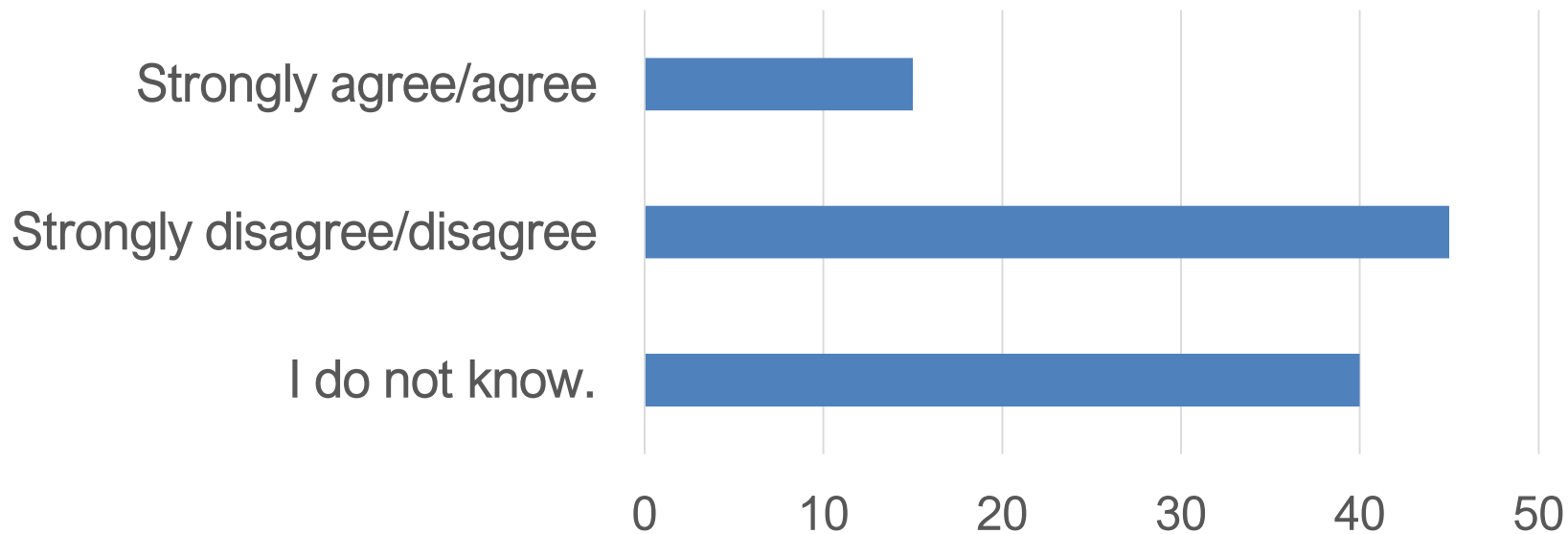
The regulatory security requirements that should be applied during the decommissioning of nuclear facilities are clear and adequate.



## Nuclear organisations anticipate and address the potential impact of the decommissioning process on the workforce.



# Adequate numbers of international forums for discussing security matters related to the decommissioning of nuclear facilities already exist.



# Some security challenges (1/2)

- ❑ New ways of working; very different range of activities; evolving status of the asset as well as diversity of the workforce
- ❑ Need to adapt to operational changes (no routine work anymore); dealing with the unknown
- ❑ Anticipating what security measures are needed for each decommissioning step; developing the right strategy (cost savings); ensuring interaction and harmonisation between security and the decommissioning plan
- ❑ Maintaining a level of security commensurate with the risk; avoiding over-conservatism in the security requirements (e.g. DBT); sustaining security budgets

# Some Security Challenges (2/2)

- ❑ Managing spent fuel! Addressing security risks generated by other radioactive waste
- ❑ Maintaining an appropriate level of awareness and compliance (security culture)
- ❑ Preventing and mitigating the insider threat!
  - A lot of movement; material accounting; potential for theft of NM
  - Staff morale (sabotage risk?)
  - Opportunity to “hire” staff to serve malevolent purposes

# Some expectations

- Learn from others;** increase my knowledge about decommissioning and security; better understand the evolution of security needs at various stages of decommissioning; transfer this knowledge back home
- Share my perspective;** add value to the discussion
- Expand my list of professional contacts in security and decommissioning matters (**Network**); maintain connections after the event
- Benchmark** my practices; find concrete solutions (no theory) that can be compared with our projects or practices
- Anticipate** what will be expected from us and incorporate this information into current plans



# Some specific questions

- How can we integrate security considerations effectively and efficiently into decommissioning planning and delivery?
- Do nuclear facility security managers have adequate situational awareness to manage the risk?
- How well is the industry preparing for the decommissioning of ageing plants, and are all stakeholders being engaged?
- Are regulatory security requirements for decommissioning adequate?
- Which criteria have been used to reduce the security requirements in order to also meet the requirement for economic efficiency?
- Are there cost comparison studies for various decommissioning approaches and spent fuel storage options? Where can I find them?
- What challenges have been faced, and how were they overcome? What are the best security practices for decommissioning? Are they available?

# Workshop Process

- PRESENTATIONS
- PLENARY DISCUSSIONS
- GROUP DISCUSSIONS
- E-VOTING



[< BACK TO EVENTS](#)

# Workshop on Maintaining Effective Security during the Decommissioning of Nuclear Facilities

20-21 NOV 2019

VIENNA, AUSTRIA

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KEY WORDS

Decommissioning

## Background

Decommissioning is defined by the International Atomic Energy Agency (IAEA) as *the administrative and technical actions taken to allow the removal of some or all of the regulatory controls from a facility. The use of the term 'decommissioning' implies that no further use of the facility for its existing purpose is foreseen. The actions taken in decommissioning need to be such as to ensure the protection of the work force and continuous protection of the public and the environment. This typically includes reducing levels of residual radionuclides*

## SUCCESS CRITERIA

- LEARN, SHARE, CONTRIBUTE
- MEET & NETWORK
- ENJOY YOUR TIME



**IDEAS**  
*into*  
**A.C.T.I.O.N**

## SECURITY IS IMPROVED!

- ACTIONS FOR YOURSELF
- SUGGESTIONS FOR YOUR ORGANISATION



World Institute for  
Nuclear Security

# Have a Great Workshop !

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during the Decommissioning of Nuclear  
Facilities



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