IAEA
International Atomic Energy Agency

Sustainable Nuclear Energy

IAEA SUPPORT

Radioactive Waste and Spent Fuel Management, Decommissioning, and Environmental Remediation

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Radioactive Waste Management

The IAEA supports Member States in strengthening their infrastructure and capabilities towards developing a comprehensive radioactive waste management (RWM) programme. Guidance is provided for specific issues reflecting international good practices based on Member States' current practices in RWM, covering all steps from waste arising to processing and disposal. The topics also include specific issues such as waste acceptance criteria, site investigation, stakeholder engagement or cost estimation and funding as well as specific waste streams relevant to many Member States, such as the management of disused sealed radioactive sources.

Conducting a wide range of activities, the IAEA is committed to fostering safe, secure, safeguarded and sustainable approaches to providing solutions for all forms of radioactive waste generated through uses of nuclear technology.

OUR WORK

ACTIVITIES

- Management of the Spent Fuel and Radioactive Waste Information System (SRIS)
- RWM Publications
- E-learning
- RWM Professional Networks
- ARTEMIS Peer Review Missions
- Training Courses and Workshops

"The experience of going to Argentina and sharing my and Canada's experiences with the Argentinian colleagues was invaluable. While I was sharing our learnings, I equally learned as much from their programme. That is the benefit of international exchanges – the learning does not just go in one direction. And in the process, you also gain a completely new network of colleagues with whom you can continue to share and exchange."

Lise Morton

Vice President, Site Selection at Nuclear Waste Management Organization (NWMO) Canada

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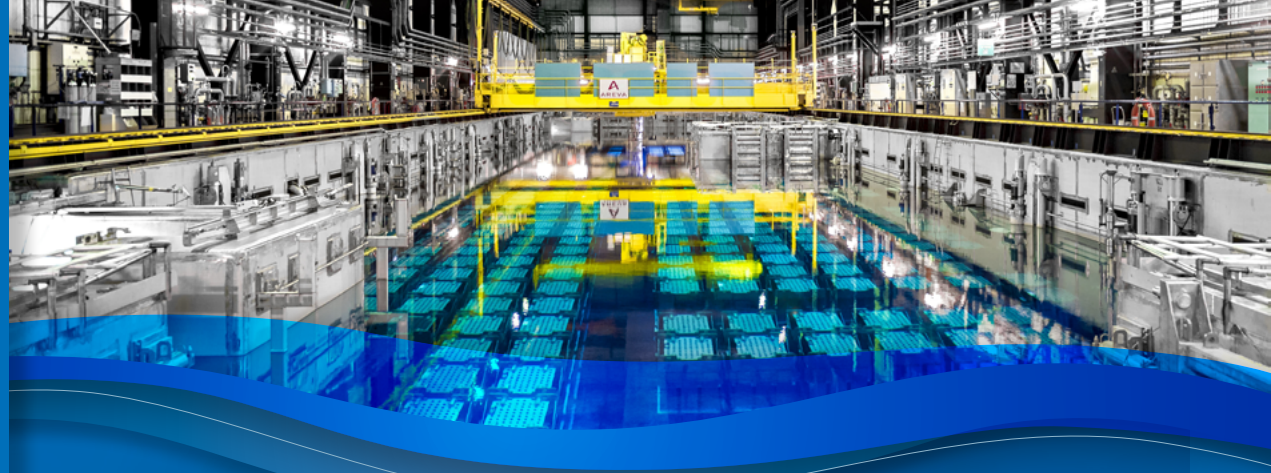
Spent Fuel Management

By providing technical expertise and a platform for international exchange, the IAEA supports Member States' efforts to manage spent fuel through long-term storage, reprocessing and recycling. Through various activities, the IAEA helps Member States to improve their capabilities to plan, develop and implement safe, environmentally viable and efficient spent fuel management (SFM) strategies. It promotes technologies and strategies for spent fuel management and provides technical guidance on good practices for the long term storage of spent fuel.

This assistance is also available to nuclear newcomer countries in the form of guidelines, Integrated Nuclear Infrastructure Review (INIR) missions, and regional, national and international workshops on issues related to infrastructure development.

OUR WORK



ACTIVITIES

- Management of the Spent Fuel and Radioactive Waste Information System (SRIS)
- SFM Publications
- E-learning
- SFM Professional Networks
- ARTEMIS Peer Review Missions
- Training Courses and Workshops

"The IAEA has been coordinating international research on spent nuclear fuel management for the last four decades through the Coordinated Research Projects BEFAST, SPAR, SFERA, DEMO, AMP and PASSED. We Hungarians started doing the research with the IAEA in the early 80s, building a network of international experts that continues today for sharing operational experiences, research results, and information on the behaviour of spent fuel during storage. This coordination of international research gives the opportunity to each of us, international experts, to offer different perspectives on the same shared issue."

Ferenc Takáts

Managing Director, TS Enercon, engineering and consulting organisation

Hungary

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Decommissioning and Environmental Remediation

The IAEA supports Member States in strengthening their capabilities for the decommissioning of nuclear facilities and remediation of contaminated sites. It also facilitates sharing experience and knowledge on effective practices in decommissioning and environmental remediation.

Through various activities the IAEA strives to increase awareness in Member States of decommissioning needs and issues, as well as of available options, solutions and good practices for ensuring sustainable decommissioning and environmental remediation based on circular economy principles. Activities are also aimed at enhancing capabilities of Member States to develop and manage human resources, infrastructure and technologies for the decommissioning of nuclear facilities and remediation of contaminated sites.

OUR WORK

ACTIVITIES

- Publications
- E-learning
- Professional Networks (Decommissioning and Environmental Management)
- ARTEMIS Peer Review Missions
- Databases

"Through the IAEA, I've had the privilege to work with people from around the world in the exchange of knowledge and expertise related to decommissioning and environmental remediation. A broader understanding of international perspectives, barriers, and constraints is key to innovation and the identification of practical solutions. Engaging in IAEA's networks and technical initiatives is a great way to develop professionally."

Karen P. Smith

Deputy Director of Operations,
Center for Remediation of Complex Sites (RemPlex)
Pacific Northwest National Laboratory
United States of America

Chair of the Steering Committee,
IAEA ENVIRONET Network

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Upcoming Events

International Conference on the Management of Spent Fuel from Nuclear Power Reactors: Meeting the Moment

10–14 June 2024, Vienna, Austria

There is growing global interest in the development and upcoming deployment of small modular reactors (SMRs) and microreactors. SMRs represent a new generation of reactors designed to generate electric power typically up to 300 MW(e) and for non-electrical industrial applications (e.g., water desalination and heat generation for industrial processes). While much focus has been given to certain aspects of SMR deployment such as reactor concepts, engineering, economics, infrastructure, safety, etc., the fuel cycle, and in particular the management of spent fuel, appears to have had limited consideration.

In this context, the IAEA is organizing under the theme ‘Meeting the Moment’. The conference covers the management of spent fuel from nuclear power reactors and steps being taken to enable the safe and effective deployment of new reactor technologies such as SMRs.

LEARN MORE

OTHER EVENTS

- Technical Meeting on Strengthening Stakeholder Engagement in Radioactive Waste Management, October 2024, Vienna, Austria
- Technical Meeting on Nuclear Site Repurposing and Stakeholder Engagement in the Context of Circular Economy and Sustainability, August 2024, Vienna, Austria
- More Events

OUR WORK

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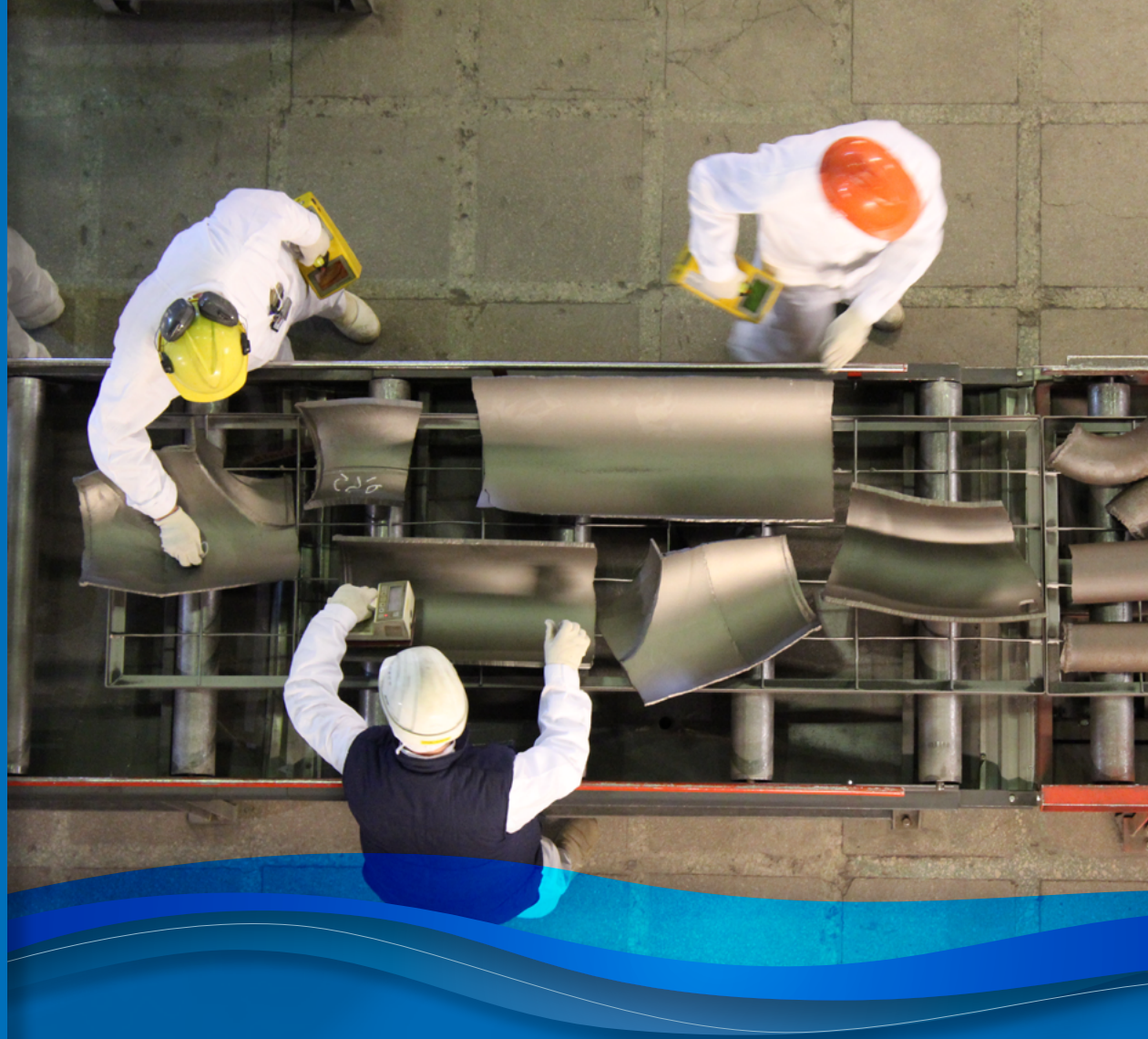
International Cooperation

"The IAEA plays a central and the most important role in strengthening international cooperation with relevant organizations and the scientific community to deal with decommissioning, remediation, waste management and other nuclear legacy tasks. Our cooperation with the IAEA is focused on the effective implementation of planned activities and further enhancing as the Collaborating Centre progresses over the coming years."

Mr Pavol Stuller

Chief Executive Officer, National Nuclear and Decommissioning Company (JAVYS)
a designated IAEA Collaborating Centre on decommissioning
Slovak Republic



- Partnerships
- Coordinated Research Projects
- Collaborating Centres

OUR WORK

Ongoing Projects and News

- Nuclear Fuel Cycle
- Waste Technology
- Decommissioning and Environmental Remediation

Stakeholder Engagement

To succeed, nuclear power and other nuclear projects need to engage with all relevant stakeholders, including the public. Involving stakeholders in decision making processes, together with stakeholder groups that do not have a direct role in making those decisions, can enhance public confidence in the application of nuclear science and technology and strengthen communication among key organisations in nuclear energy.

Stakeholder Engagement (SE) in nuclear energy is best achieved through an open dialogue, whether it be with Member States, institutions, or individuals.

The IAEA offers a wide range of products and services to support Member States efforts on SE. IAEA activities on SE include production and support of publications, technical meetings, training workshops, webinar series, e-learning resources, expert missions, and technical cooperation projects.

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Funding

Projects are funded through the Agency's Regular Budget Fund, the Technical Cooperation Fund and Extrabudgetary contributions. These are mainly supplied by Member States and, in some cases, by other, non-governmental donors. Contributions to the extrabudgetary funds and the Technical Cooperation Fund are voluntary.

For more information contact
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OUR WORK

Gender Parity

The IAEA Marie Skłodowska-Curie Fellowship Programme

The Marie Skłodowska-Curie Fellowship Programme aims to increase the number of women in the nuclear field, supporting an inclusive workforce of both men and women who contribute to and drive global scientific and technological innovation.

Students receive a scholarship for Master's programmes in nuclear related studies at accredited universities, and the opportunity to pursue an internship facilitated by the IAEA for up to 12 months. The Fellowship provides both the financial assistance and access to a professional network — two critical components for women to succeed in the nuclear world.

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For more information please contact:

MSCFP@iaea.org

OUR GOALS

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The IAEA Lise Meitner Programme

The Lise Meitner Programme is aimed at retaining women in the nuclear field by providing early or midcareer women professionals in the nuclear energy sector the opportunity to participate in a multi-week visiting professional programme. The Programme includes technical visits to nuclear facilities, radioactive waste facilities, fuel production and used fuel storage facilities, radioisotope production facilities, research reactors, nuclear research centres, scientific institutions and laboratories.

Participants will meet with a wide range of leaders and experts, and participate in technical, leadership and management activities.

The first and second edition of the programme took place in 2023 and the third edition will take place in 2024.

LEARN MORE

For more information please contact:

LMP@iaea.org

Engaging Youth

The continued advancement of nuclear energy relies on the interest and motivation of young people to pursue careers in the nuclear field. Young students and professionals can offer new perspectives and play a crucial role in efforts to achieve sustainable development and fight climate change.

The IAEA engages students and young professionals by providing opportunities to participate in international conferences, professional events and entry-level work experience.

- Internships
- Junior Professional Programme

Pipeline for Experts

The IAEA frequently engages consultants and experts to work on short-term projects. The functions of consultants and experts are results-oriented and usually assist in the delivery of specific IAEA programmatic activities.

Pipeline vacancies enable the IAEA to capture information in a highly detailed and structured manner by using expertise-related questions, and enrich the CV with expertise levels that will be used by recruiters to find suitable candidates for temporary assignments or consultancies.

When a division has a need for a specific skill set, the IAEA's Recruitment Unit will run a query among applications submitted to the relevant pipeline vacancy.

Apply here!

- Job Search (taleo.net)

OUR FUTURE

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