Status and Trends of Spent Fuel Management from Power Reactors and Related IAEA Activities

Ms Amparo González-Espartero, PhD
TL-Spent Fuel Management
Nuclear Fuel Cycle and Materials Section
Department of Nuclear Energy, IAEA
a.g.espartero@iaea.org

TM on Operating Experience and Lessons Learned on Managing Non-Standard Legacy Power and Research Reactor Spent Fuels, Vienna 18-21 February 2025

Content

The IAEA at Glance

Global Status and Trends in the Back End of the Nuclear Fuel Cycle

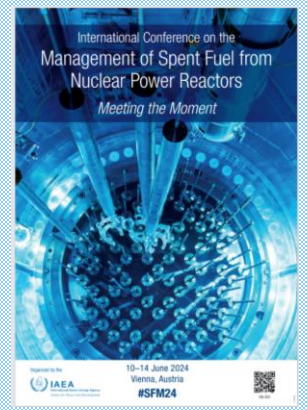
IAEA’s Activities in Support of Spent Fuel Management

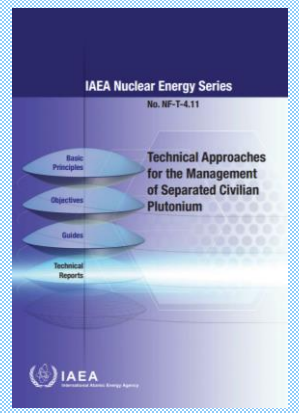
- Scientific/Technical Events
- Publications
- Coordinated Research Projects
- Review Missions
- e-Tools

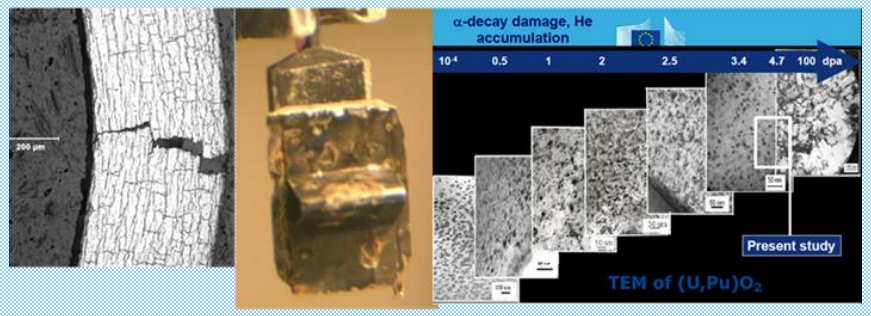
IAEA's Role and Activities

- Established in 1957, as an autonomous organization within the United Nations system, the IAEA actively supports its 180* Member States to (*inter alia*) improve their capabilities for **the safe and effective management of spent nuclear fuel** from the current and future reactor's fleet (e.g. GenIV, SMRs, AMRs, etc)
- Through:
  - Organizing international **conferences** and **workshops**
  - Publishing **technical documents** and **reports**
  - Coordinating international **research activities** (CRPs)
  - Providing **review missions/advisory services**
  - Managing specific **databases** and **e-tools**

** as of 15 November 2024*







IAEA's Governance and Advisory Boards

- Biennial programmes (ex: 2024-2025) taking into consideration Member States' recommendations & requests expressed through the yearly adopted resolutions, during the General Conferences

  "Calls upon the Secretariat and Member States in a position to do so to investigate new reactor and fuel cycle technologies with improved utilization of natural resources, and proliferation resistance, including technologies for the recycling of spent fuel and its use in advanced reactors under appropriate controls and for the long-term disposition of remaining waste materials, taking into account economic, safety, and security factors"

  "Recommends that the Secretariat continue to explore, in consultation with interested Member States, innovative nuclear technologies, including alternative fuel cycles, associated back-end management capabilities, innovative nuclear energy systems and fusion power plants, with a view to strengthening and fostering infrastructure, safety, security, science, technology, engineering, and capacity building via the use of experimental facilities and material testing reactors, to facilitate licensing, construction, and operation of these technologies"

- **Standing Advisory Groups** (SAGs)

  Standing Advisory Group on Nuclear Energy (**SAGNE**): a group of international experts advising (yearly) the Director General on nuclear power, fuel cycle and nuclear science issues

- **Technical Working Groups** (TWGs)

  Groups of international experts advising (yearly) the DDG-NE on the orientation and implementation of NE programmatic activities (ex: **TWG on Nuclear Fuel Cycle Options and Spent Fuel Management (TWG-NFCO)**)

General Conference

IAEA Atoms for Peace and Development

GC(67)/RES/10

General Conference

GC(67)/RES/10
Date: September 2023

General Distribution
Original: English

Sixty-seventh regular session
Item 16 of the agenda
(GC(67)/24)

Strengthening the Agency's activities related to nuclear science, technology and applications

Resolution adopted on 29 September 2023 during the 11th plenary meeting

A.
Non-power nuclear applications

1.
General

The General Conference,

(a) Noting that the Agency's objectives as outlined in Article II of the Statute include "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world",

(b) Noting also that the statutory functions of the Agency as outlined in Article III of the Statute, paragraphs A.1 to A.4, include encouraging research and development (R&D) and fostering the exchange of scientific and technical information and the training of scientists and experts in the field of peaceful uses of atomic energy, with due consideration for the increasing needs of developing countries,

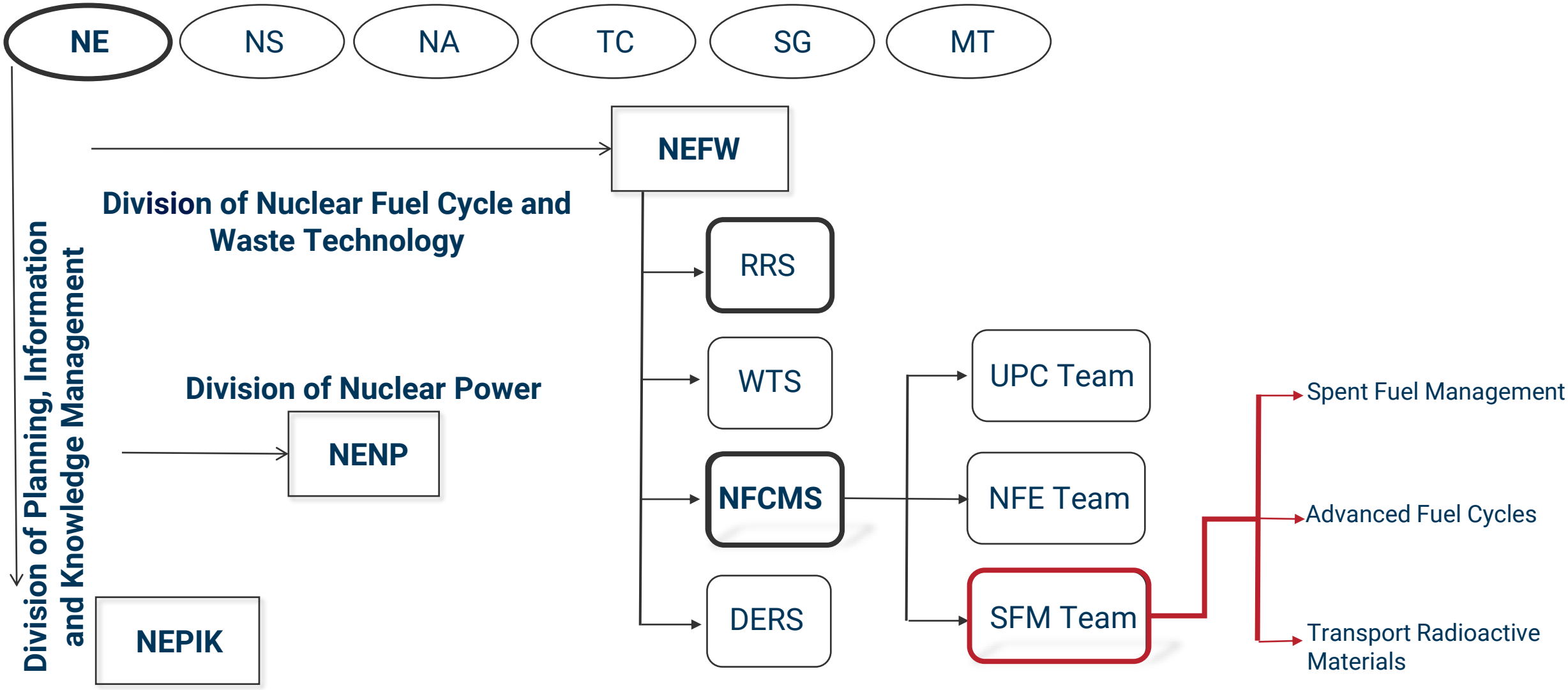
(c) Noting that the United Nations General Assembly, in resolution 64/292, called upon States and international organizations to provide financial resources, capacity building and technology transfer, through international assistance and cooperation, in particular to developing countries, in order to scale up efforts to provide safe, clean, accessible and affordable drinking water and sanitation for all,

(d) Noting that the United Nations General Assembly, in resolution 66/288, endorsed the outcome document of the United Nations Conference on Sustainable Development, entitled "The future we want", which recognized the importance of strengthened national, scientific and technological capacities for sustainable development, and to this end, supported building science and technology capacity, with both women and men as contributors and beneficiaries, including


TWG-NFCO, April 2024

IAEA's Organization

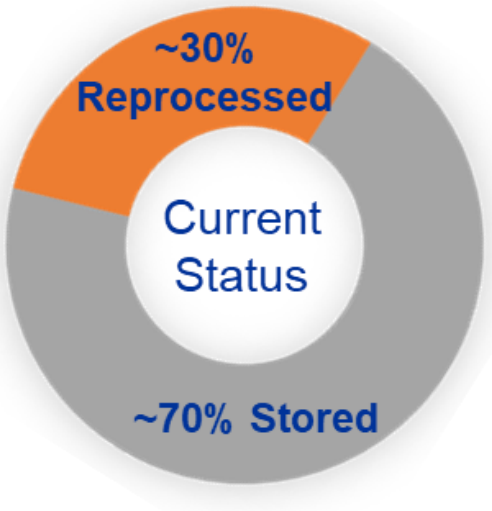
Department of Nuclear Energy

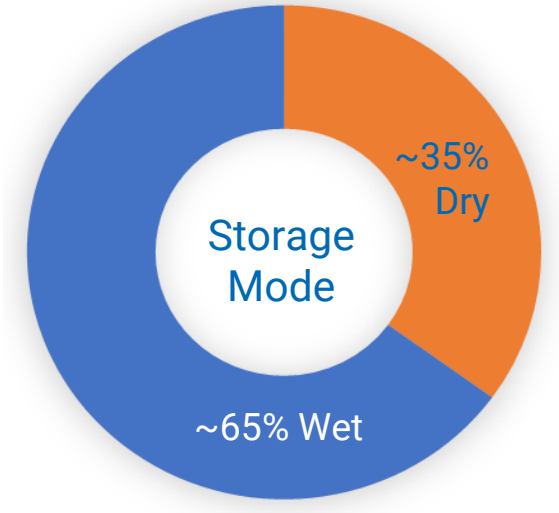


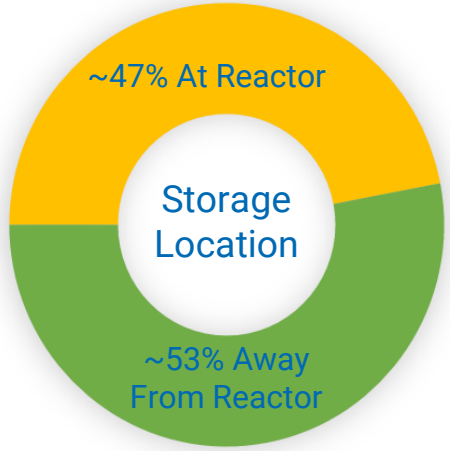
Spent Fuel Current Global Inventory

~ 417 NPPs* in 31 countries discharging ~ 10 000 tHM per year

Global Inventory by the end 2024, ~ **430 000 tHM**



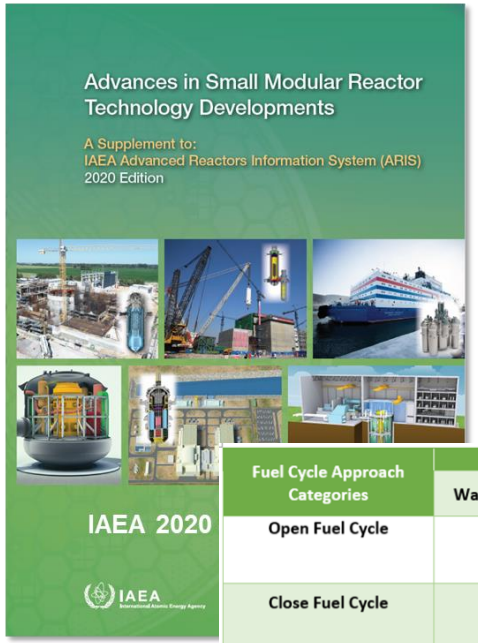




(* Feb. 2025, see PRIS database: https://pris.iaea.org/pris/)

- Global Inventory of spent fuel at the end 2023: **~ 430 ktHM**, among which **~ 301 ktHM are in Storage**
  - 47% at Reactor, 53% Away from Reactor (**33% Wet Storage** / **67% Dry Storage**)
- Selection of storage technology depends on many factors: Fuel, Economics, Stakeholders' preference

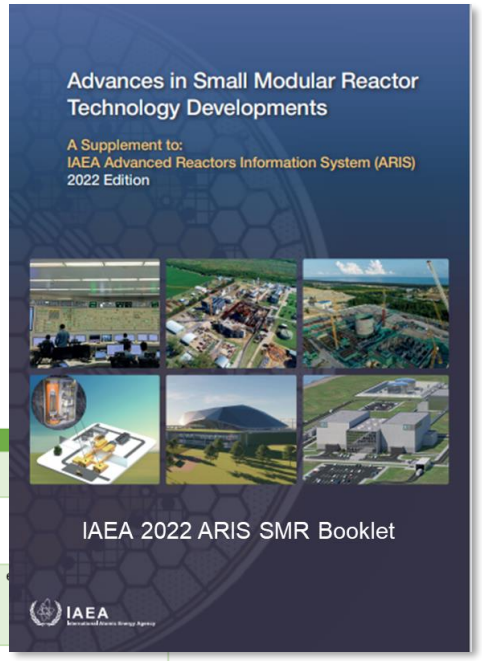
IAEA-ARIS SMR Booklet 2020/2022/2024 Editions

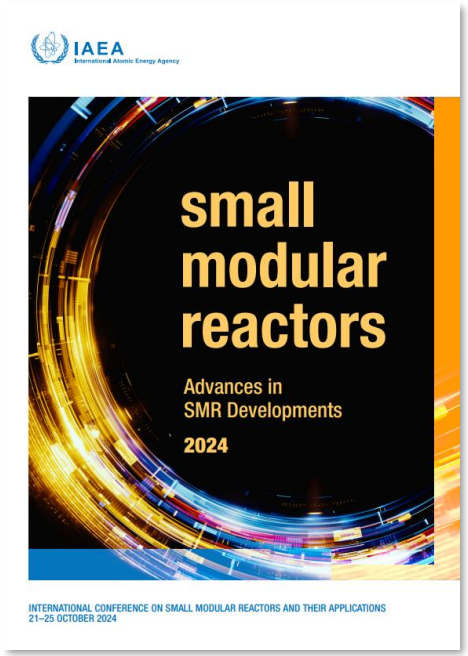


2020 Edition: For the first time a special coverage on fuel cycle approaches and waste management by technology was included

Insightful annexes with various charts and tables

Fuel Cycle Approach Categories	SMR designs by type of coolants and technology characteristics				
	Water-cooled Reactors	HTGRs	Liquid-metal cooled and Fast Reactors	Molten Salt Reactors	
Open Fuel Cycle	CAREM, ACP100, SMART, NuScale, CANDU-SMR	HTR-PM, GTHTR300, PBMR, GT-MHR, Xe-100, SC-HTGR	EM^2	Integral MSR, SmTMSR-400	
Close Fuel Cycle	SHELF		BREST-300-OD, 4S, SVBR-100	FUJI, LFTR, CA Waste Burner (later generation), and MCSFR	
Longer Refuelling Cycle > 24 months	SMART, HAPPY200, ABV-6M, RITM-200, SHELF	HTR-PM (online refuelling), GTHTR300	MicroURANUS, W-LFR, SEALER and EM^2	CA Waste Burner	
Enrichment < 5%	CAREM, NuScale, VBER, NUWARD and ACPR50S			Integral SMR Stable Salt Reactor	MoveluX
5% ≤ Enrichment ≤ 15%		HTR-PM, PBMR, GTHTR300	BREST-300-OD, 4S, EM^2, ARC100, Superstar	ThorCon	Energy Well
Enrichment > 15%	KLT-40S, RITM, SHELF, ABV-6M	MHR-T, MHR-100, GT-MHR, SC-HTGR, Xe-100,	SVBR, SEALER, LFR-TL-X, W-LFR	ThorCon	eVinci®, Aurora, MMR
Spent Fuel Processing and Conditioning			BREST-300-OF, 4S, SVBR	SmTMSR-400	
Use of Thorium-cycle and/or Plutonium Disposition		HTMR-100, GTHTR300, GT-MHR, SC-HTGR, and possibly for all	LFR-AS-200, Superstar	FUJI, LFTR, Integral MSR, CA Waste Burner, ThorCon, Moltex SSR and SmTMSR-400	
Use of Spent Fuel as Fuel		GTHTR300	BREST-300-OD	Moltex SSR and CA Waste Burner	

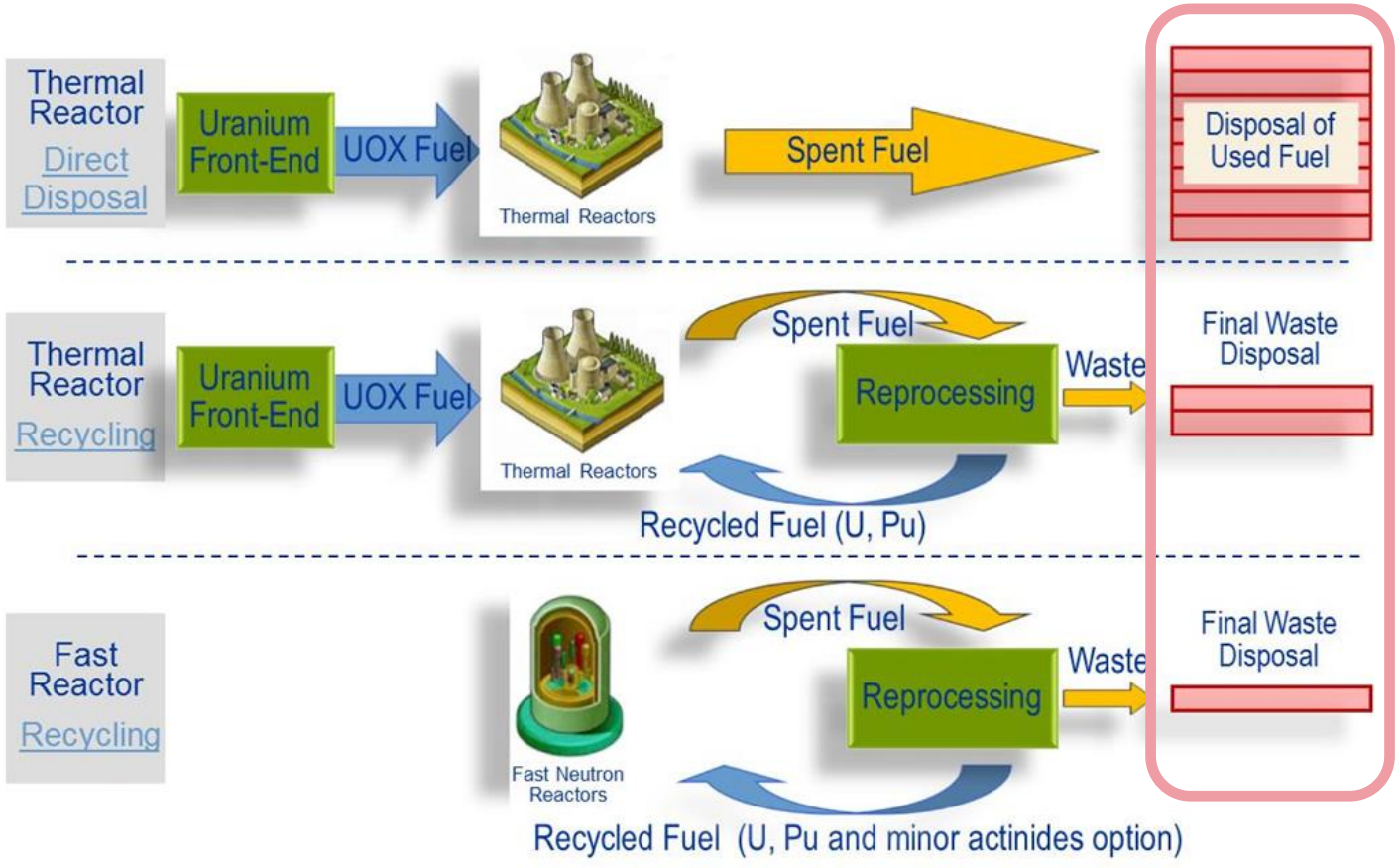




Very limited experience worldwide on the management of SNF from SMR technologies

Nuclear Fuel Cycle Options

- For Nuclear power to be sustainable, the nuclear fuel cycle must remain **economically viable and competitive** through the optimization of the use of fissile materials in reactor cores or the **recycling of valuable materials**
- This results in different fuel **cycle options**, some already implemented and others may be deployed in the future
- Potential future synergies between LWR-SMRs and AMRs will bring new spectrum of Nuclear Fuel Cycle Options



Each Type of Reactor has an Associated Nuclear Fuel Cycle

Spent Fuel Management Strategies Worldwide

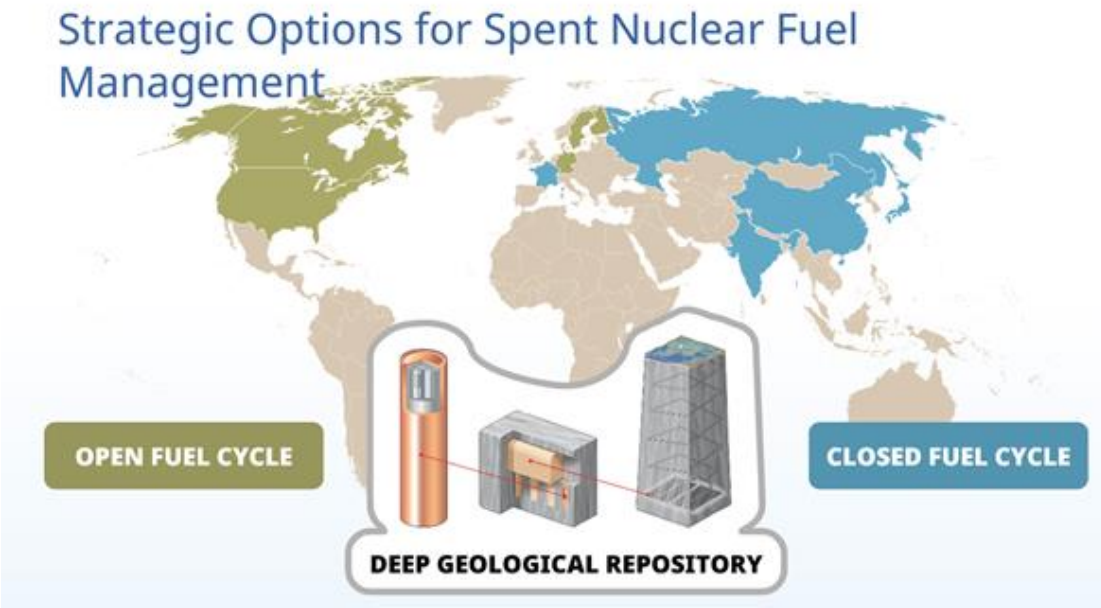
Today mainly countries with large nuclear power programmes recycle spent fuel: France, the Russian Federation, Japan, India and China.

Some countries have not yet made a final decision.

Most spent fuel is in interim storage.

Several other countries have opted for direct disposal: Finland, Sweden, Canada, Germany

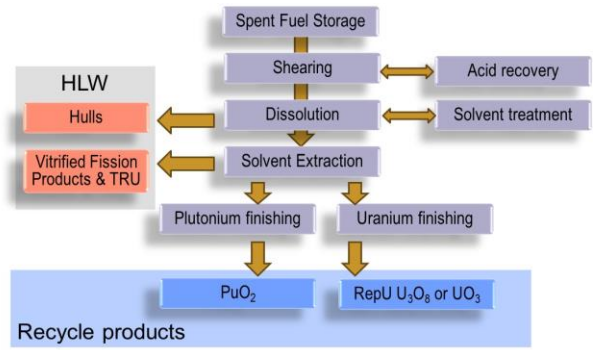
The Netherlands reprocess SNF from Borssele NPP abroad and stores High Level Waste at HABOG facility

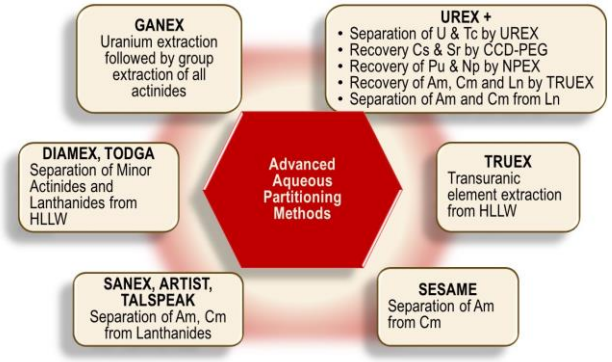


Spent Fuel Recycling through Reprocessing

- Reuse of **Reprocessed Pu as MOX in Light Water Reactors**
  - More than **40 years** of experience worldwide (44 LWRs have used MOX fuel at industrial scale since 1986)
  - Loading cores partially with MOX (25-50%) and the remainder with UOX fuel
  - Recent reactor designs can accommodate 100% MOX cores
  - Demonstrating Multiple Recycling in LWRs contributes to transitioning to Fast Reactors
- Reuse of **Rep-Pu as MOX in Fast Reactors**: implemented in Russia in BN-800
- Reuse of **Rep-U** as **Enriched Reprocessed U (ERU)** in Thermal Reactors (PWRs, VVERs, RBMKs, AGRs, PHWRs)
  - More than **30 years** of experience worldwide (TRs can accommodate 100% Rep-U cores)
- For decades, advanced (hydro/pyrometallurgaical) processes have been researched worldwide for **Minor Actinides recycling**

PUREX Process

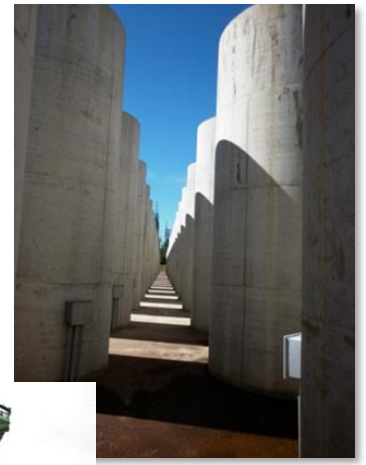




- Recycling Spent Fuel is a **mature technology** (Pu recycling in LWRs saves up to 25% of natural uranium resources)
- Reference options exist worldwide (PUREX)
- Reprocessing capacities exist in **France**, **Russia**, **India**, **Japan** and **China**

Current Challenges in Spent Fuel Management

- **Spent Nuclear Fuel Storage**
  - Planned SNF storage durations are increasing:
    - In 1980s 20-50 years
    - In 1990s up to 100 years
    - In 2000s 100+ years
  - License renewal of storage systems
    - Confirming on-going SNF behaviour & integrity
    - Maintenance and inspection of SSCs
    - Ageing management (beyond design basis for most)
- **SNF transportability** after long storage durations and orphan sites
- **Spent Nuclear Fuel recycling**
  - Implementation of multi-recycling in LWRs at industrial scale
  - Demonstration and scaling-up of multi-recycling through Advanced Fuel Cycles for innovative reactors
- Accommodation of SNF from **Small and Modular Reactors**
- Successful implementation of **Deep Geological Repositories**



IAEA’s Activities in Support of Spent Fuel Management

Publications

Scientific/Technical Events

Coordinated Research Projects

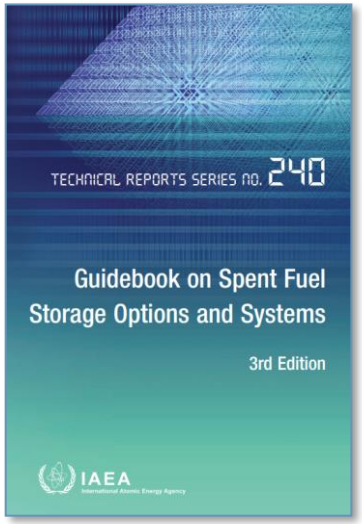
Review Missions

e-Tools

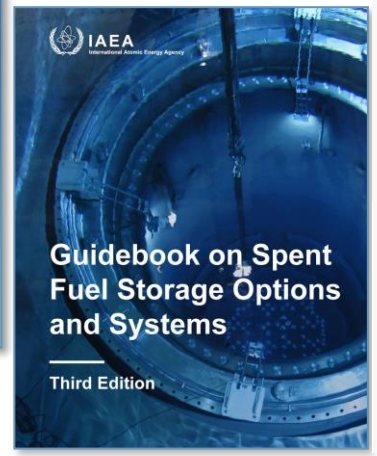
IAEA Publications on Spent Fuel Management

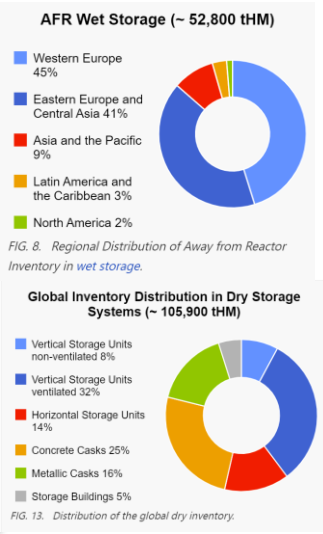
Translated in Arabic, Chinese & Russian

Translated in Arabic, Chinese and Russian



INTERACTIVE
Available ON-LINE





https://www.iaea.org/publications

- **TECDOCs**
- **NE Series publications**
- **Interactive Books** with pictograms, animations and downloadable pictures and charts

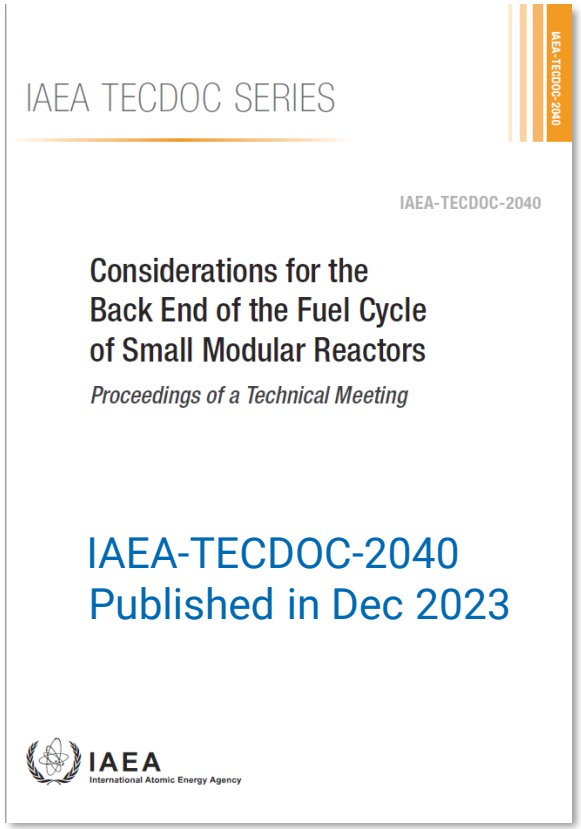
Technical Meeting on **Backend of the Fuel Cycle Considerations for SMRs**, 20-23 September 2022

107 Participating Experts
from **32** Member States &
3 International Organizations

~ 40 Presentations and Extended Abstracts

https://conferences.iaea.org/event/321/

RESULTS of the IAEA Technical Meeting on Backend of the Fuel Cycle Considerations for SMRs



IAEA-TECDOC-2040
Published in Dec 2023

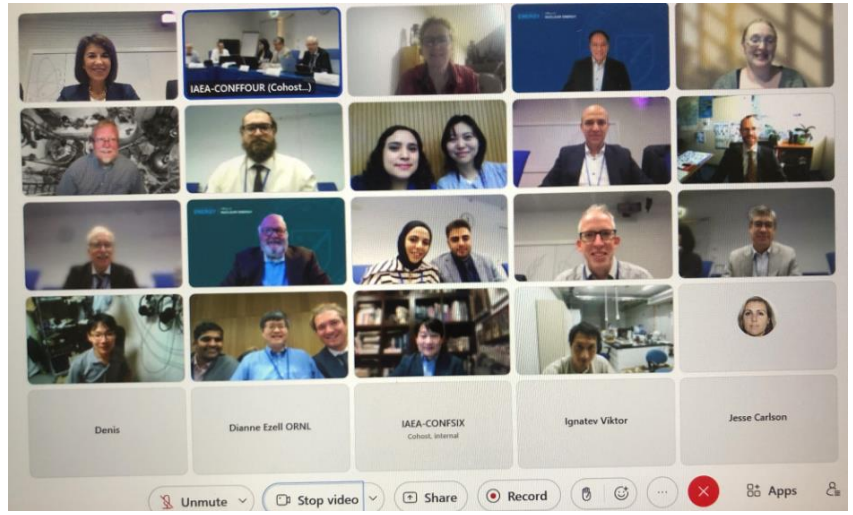
Summary of Presentations and Discussions during the Technical Sessions on

- IAEA Activities
  - SMR Developments and Associated Nuclear Fuel Cycle Options, Fuel Designs, Safety, Security, Safeguards, Economics, Transportation
- International Organization's Activities and Perspectives
  - EC/JRC, OECD/NEA and ERDO
- Member States' Activities and Perspectives
- Three Breakout Sessions (Storage, Reprocessing&Recycling, Transportation, Disposal)
  - LWR type
  - **HTGR type**
  - AMRs (LMFRs and MSRs) type
- General Discussion
- Conclusions and Future Areas of Work

International Workshop on the Chemistry of Fuel Cycles for Molten Salt Reactor Technologies, 2-6 Oct. 2023, in cooperation with the OECD/NEA

- Global attendance from national laboratories and SMR developers
  - 44 participants including 4 SMR developers

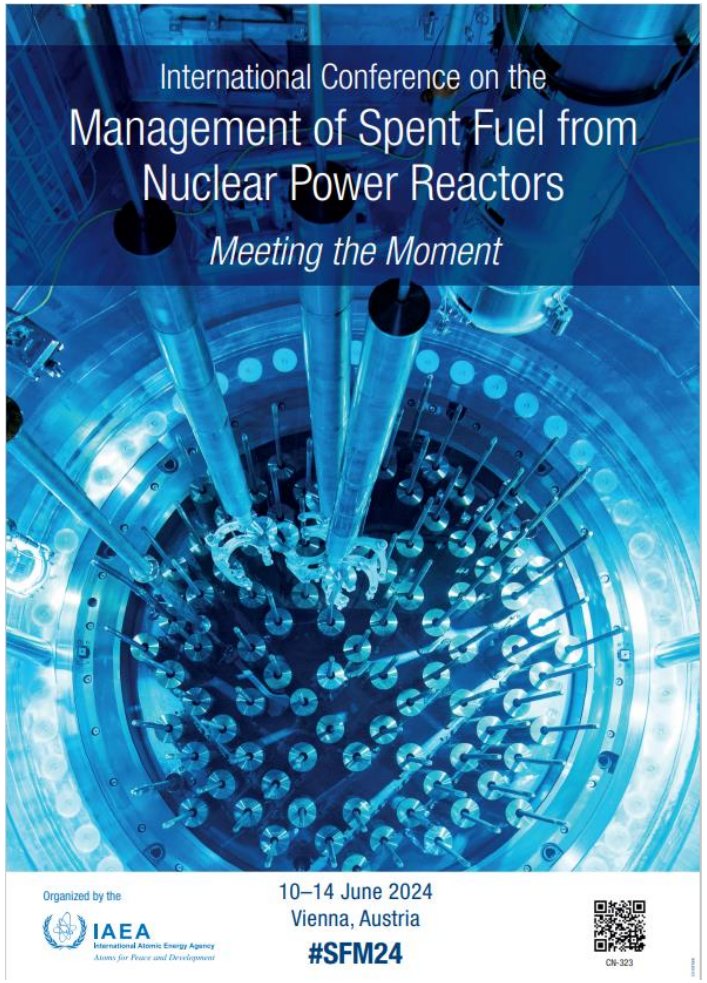
- Follow-up activities: to develop
  - a **Taxonomy** of nuclear fuel cycle options for MSRs
  - a **Terminology** associated to nuclear fuel cycle options for MSRs, to help when communicating on concepts



International Conference on Spent Fuel Management: *Meeting the Moment*

10-14 June 2024

- In cooperation with OECD/NEA, WNA, EC, WNTI
- **300** in person participants from **58** countries and **6** Int Org
  - 86 women and 214 men present
  - About 220 participants online
- **77** oral presentations, **4** panels, **2** side events, **13** E-posters, **21** posters
- **Proceedings** in progress (publication: early 2025)



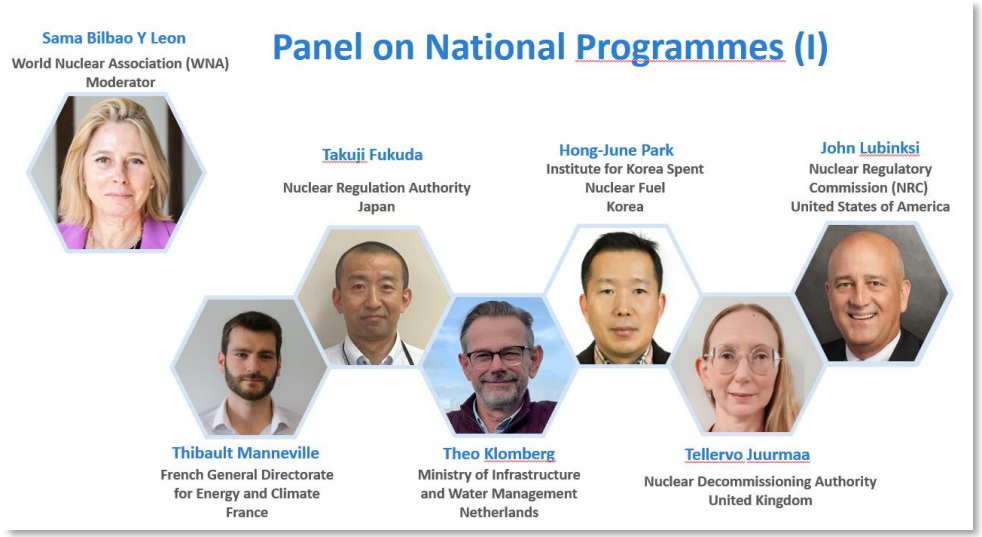
Special Attention Given to Young Generation

11 Young Generation Winners were selected based on the outstanding quality of their papers, the diversity of topical areas as well as the geographical distribution Egypt, Ethiopia, France, Mexico, Nigeria, Poland, Russia, Sweden, UK and USA

In recognition of their work, each winner was granted to attend the Conference in person, invited to deliver an oral presentation and to co-chair a technical session and they received a certificate signed by the IAEA DG-Grossi

#SFM24 Panel Discussions

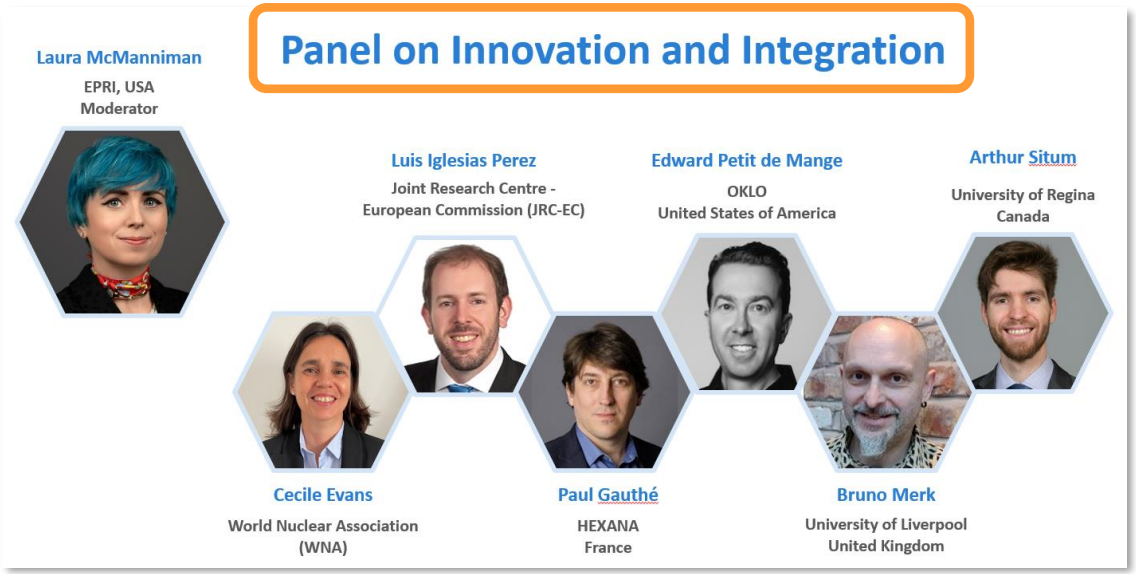
Panel on National Programmes (I)



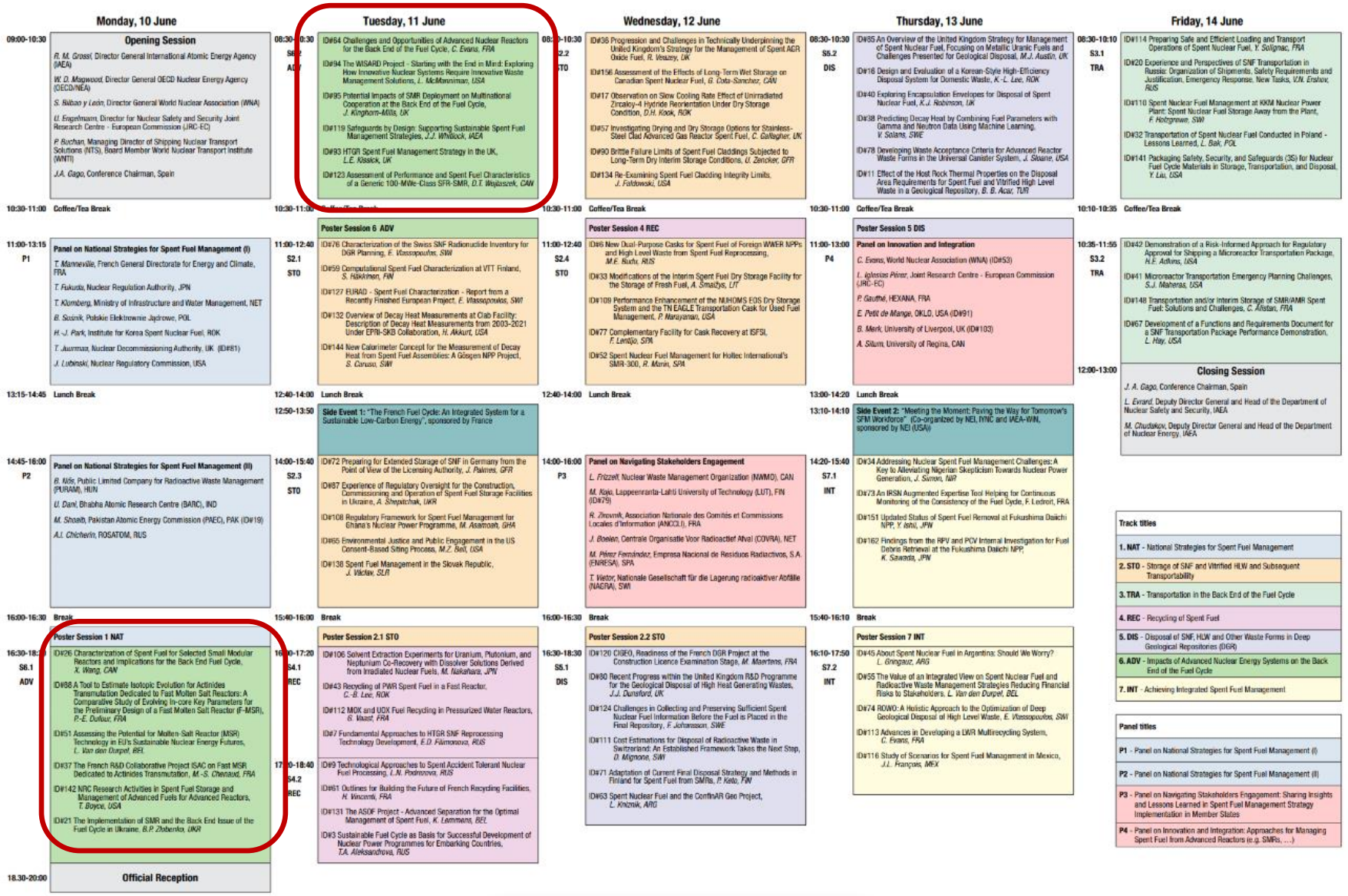
Panel on National Programmes (II)

Panel on Stakeholders Involvement

Panel on Innovation and Integration



Scientific Conference Programme from 8:30h to 18:30h



Track titles
1. NAT - National Strategies for Spent Fuel Management
2. STO - Storage of SNF and Vitrified HLW and Subsequent Transportability
3. TRA - Transportation in the Back End of the Fuel Cycle
4. REC - Recycling of Spent Fuel
5. DIS - Disposal of SNF, HLW and Other Waste Forms in Deep Geological Repositories (DGR)
6. ADV - Impacts of Advanced Nuclear Energy Systems on the Back End of the Fuel Cycle
7. INT - Achieving Integrated Spent Fuel Management

Panel titles
P1 - Panel on National Strategies for Spent Fuel Management (I)
P2 - Panel on National Strategies for Spent Fuel Management (II)
P3 - Panel on Navigating Stakeholders Engagement: Sharing Insights and Lessons Learned in Spent Fuel Management Strategy Implementation in Member States
P4 - Panel on Innovation and Integration: Approaches for Managing Spent Fuel from Advanced Reactors (e.g. SMRs, ...)

- **14** Sessions in **7** Tracks
- **77** contributed oral presentations **13** E-posters, **21** posters from **29** Member States and **2** international organizations

IAEA Coordinated Research Projects (CRP)

IAEA CRP No T13015 - CORIUM

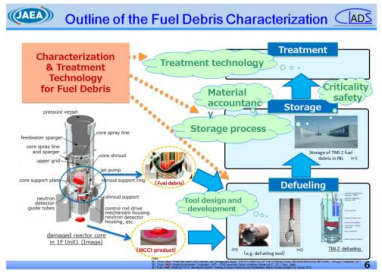
- Management of Severely Damaged Spent Fuel and Corium - IAEA CRP No T13015
- CRP Overall objective is to expand the existing knowledge base and identify optimal approaches for managing severely damaged spent fuel
- Project initiated February 2016

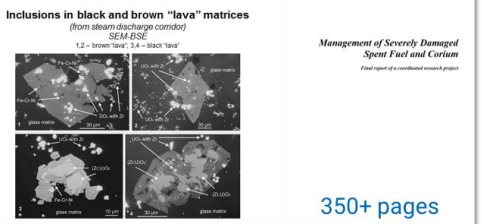
RCM-1 held 13-16 February 2017 in Vienna

RCM-2 was held 5-9 November 2018 in Tomioka, Japan. Meeting hosted by JAEA at the CLADS Facility

RCM-3 was held 29 August - 2 September 2022 in Vienna (Hybrid)

Final Report (350+ pages) under preparation



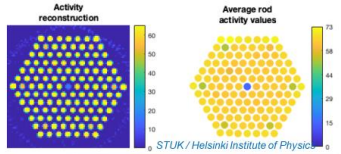


350+ pages

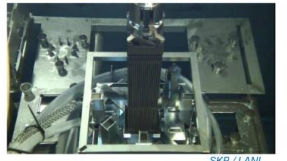
Value of the CRP
Sharing experiences and knowledge TMI, Chernobyl and Fukushima, damaged fuel management strategies

CRP on Spent Fuel Characterization, CRP T13018 (2020-2024)

Covering a wide range of power reactor fuels: BWR, PWR, RBMK, WWER, CANDU and AGR fuels

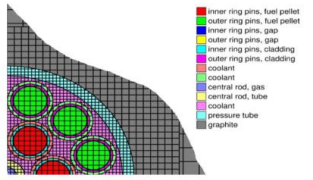


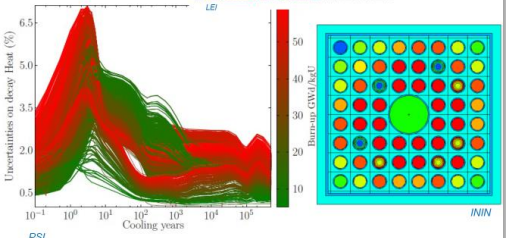
eurad
European Joint Programme on Radioactive Waste Management



Development and testing of techniques to characterize spent fuel using **non-destructive techniques**.

Destructive testing of spent fuels to enable full characterization and generate data points for future use.





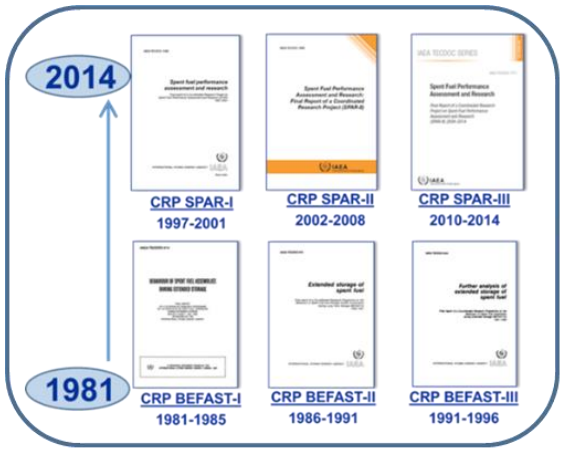
Development, refinement and validation of **modelling techniques** for RBMK and LWR fuels. Includes assessment of biases and uncertainty for important parameters, such as **decay heat**

CRPs on Spent Fuel Behaviour
(40+ years of Operational Experiences and Research Worldwide)

Main Objective

- To sustain and improve the IAEA's Member States **technical knowledge base on the long-term behaviour of power reactor spent fuel** through sharing and disseminating information, reporting topical research carried-out in participating Member States, and by documenting ongoing spent fuel performance

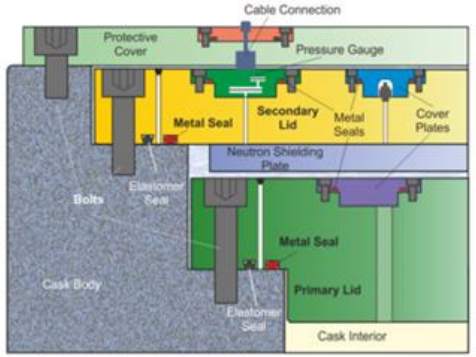
- **Series of Coordinated Research Projects** BEFAST and SPAR (1981-2020)
  - Covering all power reactor fuels: MAGNOX, RBMK, WWER, AGR, BWR, PWR, HWR, PHWR
  - Spent Fuel performance in Wet and Dry storage

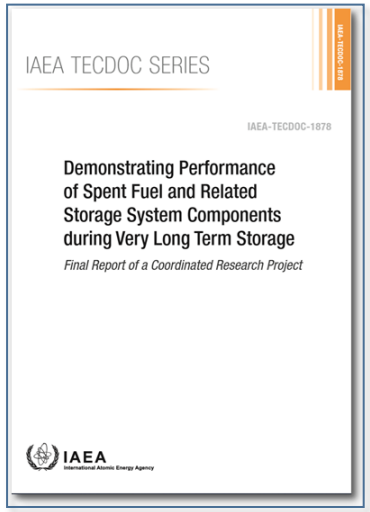


CRPs on SNF Dry Storage Systems Behaviour

- **Demonstrating Performance of Spent Fuel and Related Storage System Components During Very Long Term Storage"** (DEMO) CRP T13014 (**Closed**, 2012-2016)

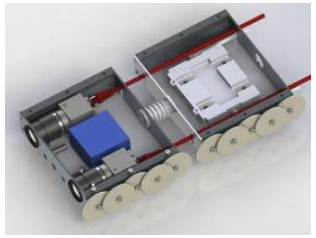
  Linked to Extended Storage Collaboration Programme (ESCP) International Sub-committee of EPRI





- **Ageing Management Programmes for Dry Storage Systems"** (AMP) CRP T21028 (**Closed**, 2016-2020) *(Final Report in Drafting)*

  <u>CRP Overall Objective:</u> To develop the technical basis and methodology to enable guidance to be provided to Member States on how to generate an ageing management programme for spent fuel dry storage systems



Overview about development of inspection technologies

CRPs on SNF Storage Systems Behaviour

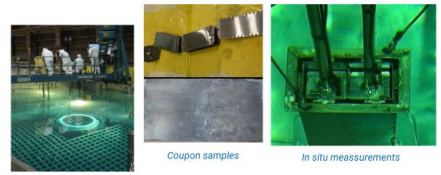
"Performance Assessment of Storage Systems for Extended Durations" **(PASSED)** T13019 (2022-2026)

Main Objective:

- To sustain and improve IAEA Member States' technical knowledge base on the **<u>long term behaviour of spent fuel storage systems, inspections possibilities and monitoring technologies</u>**, through the sharing and disseminating of technical information, the reporting on topical researches carried-out and the documentation of on-going storage systems' performance

Covers wet & dry spent fuel storage systems

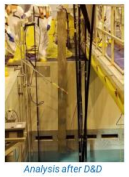
- operational experiences storage system inspections
- new/novel techniques for monitoring
- predictions of spent fuel storage system behaviour over long periods
- documenting the technical basis for spent fuel storage system performance assessment
- predictions of spent fuel storage system behaviour



Coupon samples

In situ meassurements

Pool panel analysis (picture courtesy EPRI)



Analysis after D&D

Enlargement of storage facilities. Courtesy PAKS

Coordinated Research Project on *Challenges, Gaps and Opportunities for Managing Spent Fuel from SMRs*

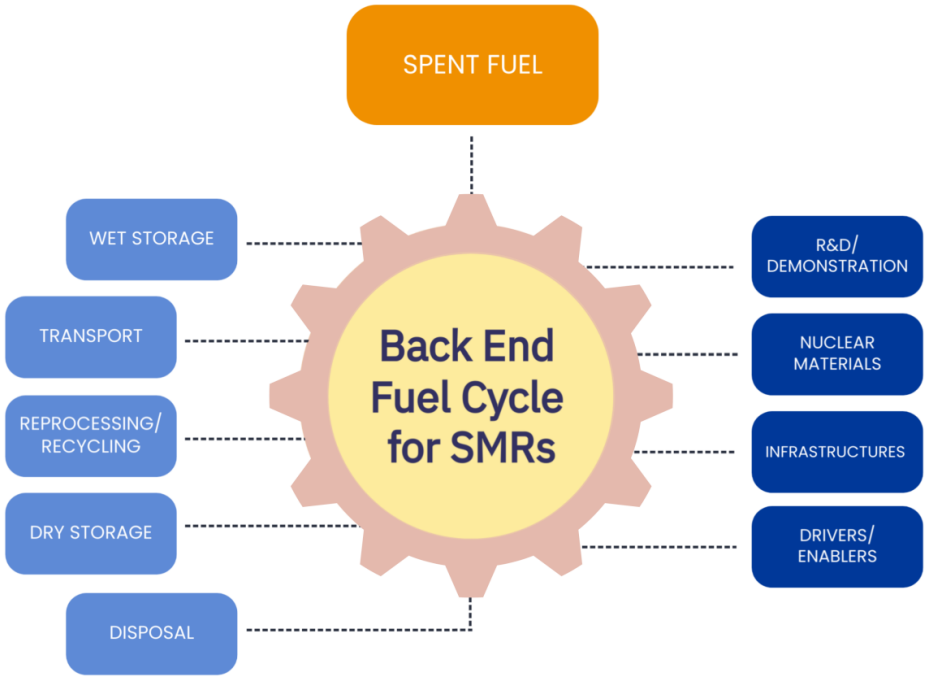
Understanding the implications of the management of new spent fuels is paramount to make informed decisions

MAIN OBJECTIVES and OUTPUTS

Development of **specific roadmaps** for managing spent fuel from the different SMR technologies, identifying **what can be derived, optimized or adapted from existing practices, or what needs to be fully developed**

- **All SMR technologies included**: LWRs (LEU, LEU+, HALEU), HTR (TRISO (prismatic, pebbles)), FRs (Metallic, Oxide, Nitrides, …), MSRs
- To compare various SMR systems, in terms of efforts required to develop and implement an SFM strategy
  - ✓ Nuclear fuel cycle facilities
  - ✓ Technology readiness level
  - ✓ Nuclear materials involved
  - ✓ Infrastructures (e.g., human resources, financing)
  - ✓ R&D / Demonstrations
  - ✓ Enablers/Synergies

SMR-COGS, CRP T13021



First Research Coordination Meeting of SMR-COGS CRP held on 11 to 15 November 2024 in Vienna

STATUS of the Coordinated Research Project SMR-COGS

- ***14 Research Contracts*** from ARG, ARM, CPR, CZR, EGY, INS, LIT, MEX, POL, ROM(2), UKR(3)
- ***18 Research Agreements*** from CAN(2), CPR, DEN, EGY, JOR, NOR, SIN, SPA, SWE, TUR, UK(2), USA(5)

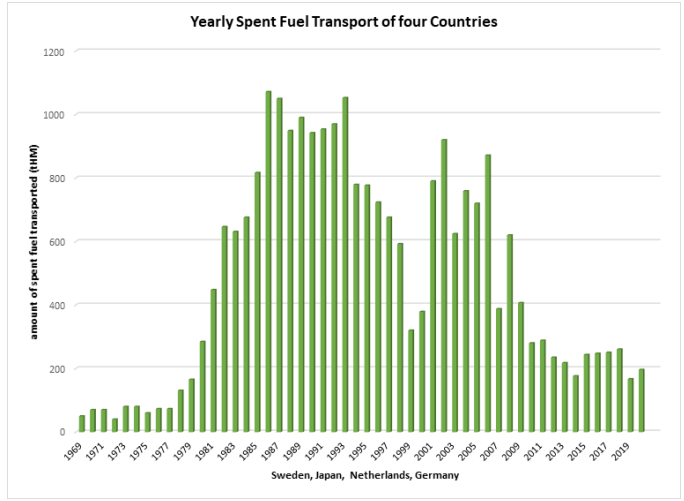
- Industry, Operators, Researchers, Regulators, etc.
- Nuclear Energy Programmes:
  - Embarking (Phase 1, 2 and 3), Expanding, Mature and Not Nuclear (DEN and NOR)
- Observers: OECD/NEA, FIN, FRA, NET, RUS

- ❑ Decision to publish **Roadmaps** as soon as they are ready
- ❑ **First one on HTGR spent fuels** foreseen by Dec 2025

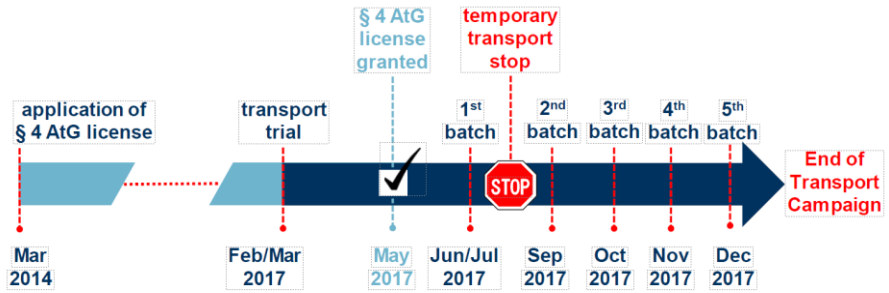
45+ participants from 25 countries

Transportation of Spent Fuel

Technical Meeting on Operational Experiences on Spent Fuel and High Level Waste Transportation, 17-21 October 2022

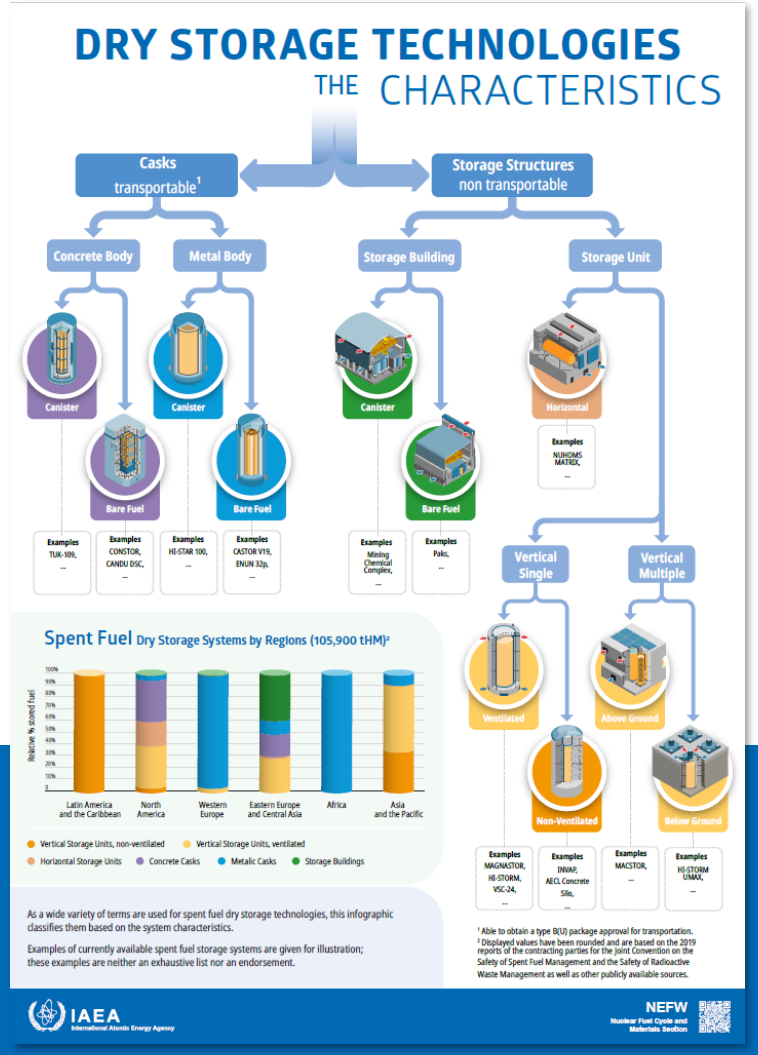


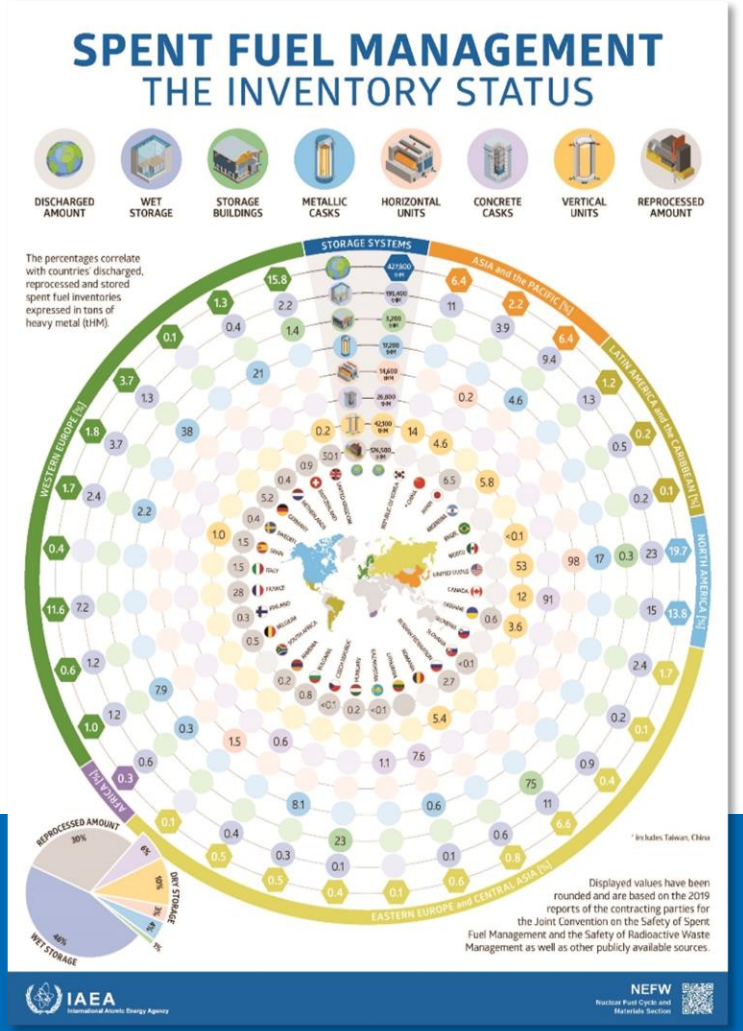
- Spent fuel has been regularly transported for decades
- TM will review draft TECDOC on Operational Experience containing case studies from seven countries
- Will be opportunity to gather and discuss further information
- Tecdoc is under Drafting Process, gathering country cases

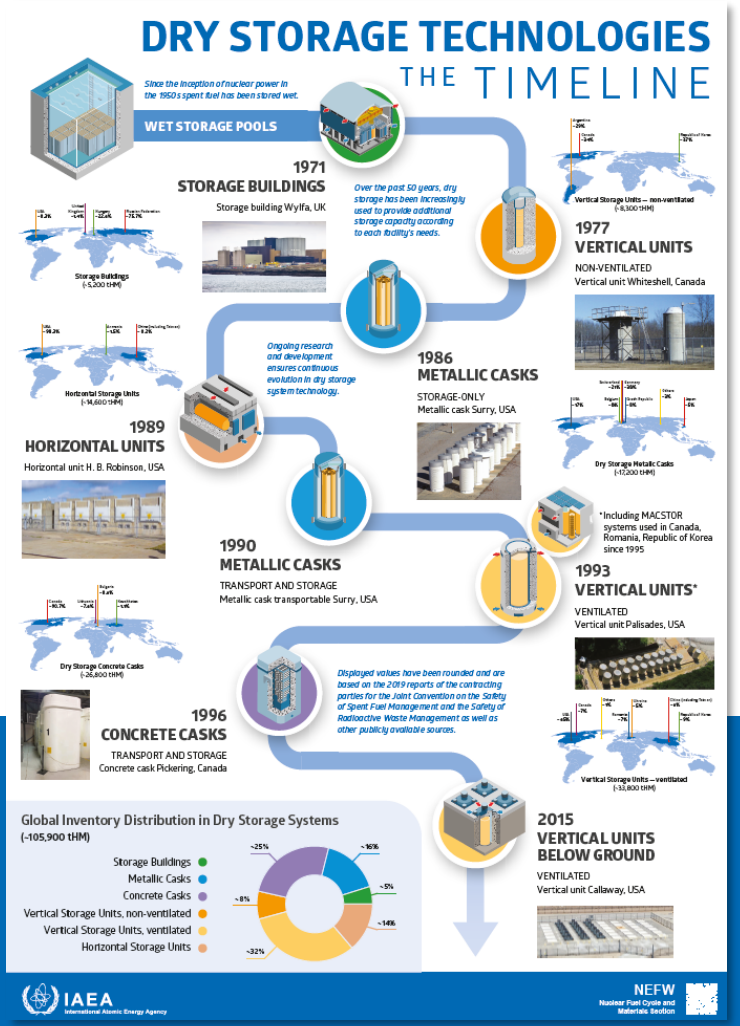


Detailed regulations require long preparation times

IAEA Infographics on Spent Fuel Management



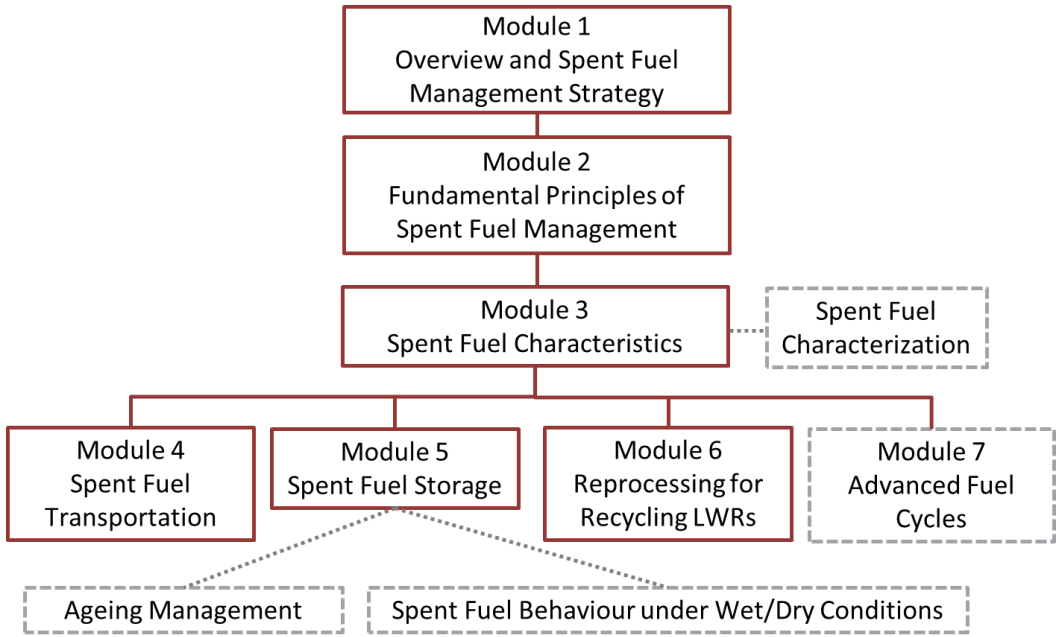


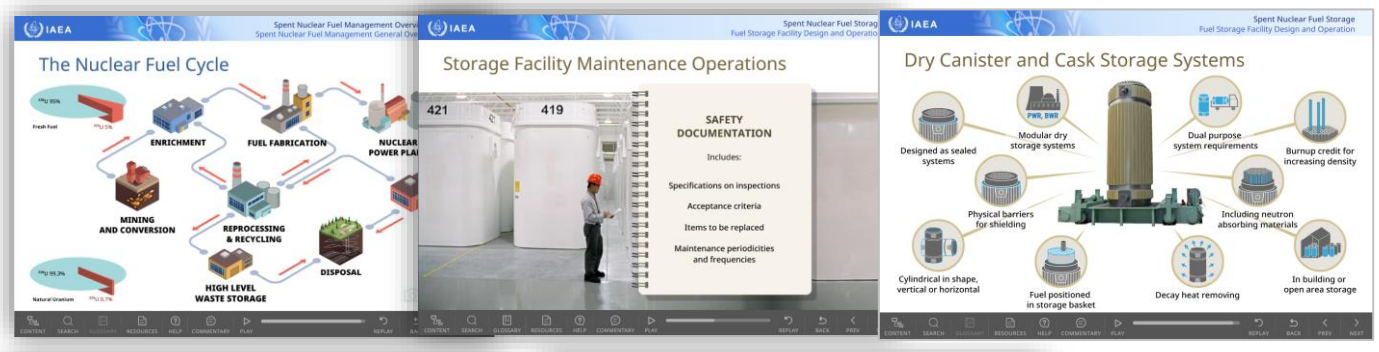


https://www.iaea.org/topics/spent-fuel-management

IAEA e-Learnings on Spent Fuel Management

6 Modules (11 Lectures) already available in





https://www.iaea.org/services/education-and-training/online-learning

Up-Coming IAEA Activities on SFM

- Technical Meeting on Operating Experience and Lessons-learned on Managing Non-standard/Exotic Legacy Power and Research Reactor Fuels, 18-21 February 2025, Vienna
- Technical Meeting on the **Behaviour of Spent Fuel and Cladding During Storage and the Performance of Spent Fuel Storage Systems**, 23-27 June 2025, Seoul
- Technical Meeting on the Management of **Spent Fuel from High Temperature Gas Cooled Reactors**, 7-11 July 2025, Vienna
- Joint IAEA-NEA Workshop on the **Taxonomy and Related Terminology of Fuel Cycles for Molten Salt Reactors**, 3 – 7 November 2025, Vienna
- Workshop on the Challenges in Managing **Spent Evolutionary Advanced Technology Fuels**, 10-14 November 2025, Vienna

Spent Fuel Management Network

Welcome to the IAEA International Network on Spent Fuel Management - SFM Net

The spent fuel management (SFM) network is a forum for the sharing of practical experience and international developments on spent fuel management.

Its main objectives are to facilitate the efficient exchange of information, communication and cooperation amongst professionals working in the back end of the fuel cycle – from its removal from a reactor core to its final disposition (i.e. SNF wet and dry storage, transportation, handling and retrieval, reprocessing and recycling, economics of the back-end of nuclear fuel cycle, damaged SNF management, stakeholder involvement, communication issues, etc.)

The establishment of the SFM Net is aimed at fostering safe, sustainable and efficient spent nuclear fuel management practices across all IAEA Member States.

For further information or questions please contact SFM.Contact-Point@iaea.org.

Featured Publications

SEE ALL

Spent Fuel Performance Assessment & Research (SPAR IV)

Status and Trends in Pyroprocessing of Spent Nuclear Fuels

Phenomenology, Simulation & Modelling of Accidents in Spent Fuel Pools

Management of Spent Fuel from Nuclear Power Reactors Learning from th...

Demonstrating Performance of Spent Fuel & Related Storage System...

Management of Spent Fuel from Nuclear Power Reactors

Events 2025

- Technical Meeting on Operating Experience and Lessons Learned on Managing Non-Standard Legacy Spent Fuels from Power and Research Reactor (18 – 21 February 2025) *EVT2304628*
- Third Coordination Research Meeting on Spent Fuel Research and Assessment (24 – 28 March 2025) *EVT2404557*
- 23rd Meeting of the Technical Working Group on Nuclear Fuel Cycle Options and Spent Fuel Management (01 – 04 April 2025) *EVT2403024*
- Technical Meeting on the Behaviour of Spent Fuel and Cladding During Storage and the Performance of Spent Fuel Storage Systems (23 – 27 June 2025) *EVT2406813*
- Technical Meeting on the Management of Spent Fuel (Pebble Beds and Prismatic) from High Temperature Gas Cooled Reactors (7 – 11 July 2025) *EVT2404558*
- Joint IAEA-NEA Workshop on the Taxonomy and Related Terminology of Fuel Cycles for Molten Salt Reactors (29 September – 03 October 2025) *EVT2404560*
- Workshop on the Challenges in Managing Spent Evolutionary Advanced Technology Fuels (10 – 14 November 2025) *EVT2205716*
- Technical Meeting on the Operation and Maintenance of Storage and Transportation Casks (09 – 12 December 2025) *EVT2404726*

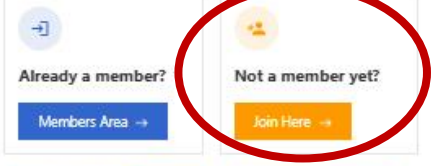
Latest News

NEW CRP: Challenges, Gaps and Opportunities for Managing Spent Fuel from Small Modular Reactors (T13021)

There are currently more than 80 small modular reactor (SMR) designs under the development globally, spanning a wide range of reactor technologies and fue...

IAEA's Learning Management System!

With the addition of 3 new modules, the course on Spent Fuel Storage is available on IAEA's Learning Management System! Click here for full course details.



New infographics now available!

SFM.Contact-Point@iaea.org

Thank You

A.Gonzalez-Espartero@iaea.org