

# Technical Meeting on Transitioning from On-site Spent Nuclear Fuel Storage to Off-site Spent Nuclear Fuel Storage at Permanently Shut Down Reactor Sites

IAEA Headquarters, Vienna, Austria

30 September – 4 October 2024

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### **Information Sheet**

### Introduction

The global fleet of Nuclear Power Plants (NPP) is ageing, with a significant number of reactors either shutdown or planned for shutdown, and before their decommissioning, their spent fuel pools will have to be emptied, moving spent fuel from at-reactor pools to away from reactor storage facilities that can be located either on the reactor site (On-site), withing the boundaries of the NPP, or off the reactor site (Offsite).

For sites operating an away from reactor On-site storage facility, the end of the reactor operation followed by its decommissioning has consequences on the availability of infrastructure and services for spent fuel handling. Those might be different depending on the regulatory framework in each country, but a few examples are given below.

Existing licenses to store fuel on a reactor site (On-site storage) might need to be amended to meet the requirements to store spent nuclear fuel in an independent Off-site storage facility. It might also be necessary to transfer the existing storage license as well as contracts in place to support operation of the storage facility to a different licensee within the existing national regulatory framework in case the reactor operator will no longer be the operator of the storage facility.

Beside regulatory issues, an Off-site storage facility also needs to have the necessary infrastructure to maintain operation. Electricity as well as water supply have to be ensured and might require additional connections to Off-site utilities. In order to fulfil security requirements, access to the facility has to be controlled and e.g., gates and fences might need to be added. Services and staff necessary for storage facility operation that were previously provided by the NPP such as e.g., radiation protection personal is required and now needs to be provided by the storage facility. Especially in case of a change of operator, knowledge management has to e.g., cover previous operational experience of the storage facility and ensure proper transfer of information to the new operator. In case of bolted cask storage, equipment and staff for e.g., leak tightness testing might be necessary, and staff accredited for cask surface repairs in case of damage to the coating. Depending on the deployed storage system specific mitigation and repair equipment and staff might be needed.

These examples illustrate how the transition from an on-site spent fuel storage facility to an off-site spent fuel storage facility has been a concern for IAEA Member States and following the recommendation made by the members of the Technical Working Group on Nuclear Fuel Cycle Options and Spent Fuel Management, in 2022, an activity should be conducted to gather considerations, experiences and lessons learned on such transitions. A Technical Meeting is therefore organized on Transitioning from On-site Spent Nuclear Fuel Storage to Off-site Spent Nuclear Fuel Storage at Permanently Shut Down Reactor Sites.

## **Objectives**

The objectives of the Technical Meeting are to:

- Provide a general overview on the number of sites which have already transitioned from On-site spent fuel storage to Off-site spent fuel storage;
- Gather experience and lessons learned in Member States with the transition process completed or in progress; this should be based on papers submitted prior to the Technical Meeting and cover the following topical areas: (1) legal framework, (2) operational and (3) infrastructure needs for an Offsite storage facility in comparison to an On-site storage facility;
- Agree on the outline of the Technical Meeting's proceedings (TECDOC) and start drafting them, capturing materials presented, discussions held during and conclusions of the technical sessions of the meeting.

## **Target Audience**

This Technical Meeting targets participants which have experience in operating a spent fuel storage facility. All aspects of the transition from On-site to Off-site spent fuel storage facilities from regulatory bodies and utilities, and storage facility operators are welcome and expected to share their operational experience and lessons learned. Countries planning to transition from On-site storage facilities to Off-site storage facilities in the future are also welcome to present their plans and gain input from experienced member states.

## **Working Language(s)**

The working language of the meeting will be English, with no interpretation provided. All communications, abstracts and papers must be in this language.

## **Expected Outputs**

The expected outputs the Technical Meeting are the intended outline of the envisaged TECDOC and the list of potential contributors.

## **Participation and Registration**

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State or invited organization, participants are requested to submit their application via the InTouch+ platform (<a href="https://intouchplus.iaea.org">https://intouchplus.iaea.org</a>) to the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA by 11 August 2024, following the registration procedure in InTouch+:

- 1. Access the InTouch+ platform (<a href="https://intouchplus.iaea.org">https://intouchplus.iaea.org</a>):
  - Persons with an existing NUCLEUS account can sign in to the platform with their username and password;
  - Persons without an existing NUCLEUS account can register here.
- 2. Once signed in, prospective participants can use the InTouch+ platform to:
  - Complete or update their personal details under 'Complete Profile' and upload the relevant supporting documents;
  - Search for the relevant event under the 'My Eligible Events' tab;
  - Select the Member State or invited organization they want to represent from the drop-down menu entitled 'Designating Authority' (if an invited organization is not listed, please contact <a href="mailto:InTouchPlus.Contact-Point@iaea.org">InTouchPlus.Contact-Point@iaea.org</a>);
  - If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
  - Based on the data input, the InTouch+ platform will automatically generate the Participation Form (Form A) and/or the Grant Application Form (Form C);
  - Submit their application.

Once submitted through the InTouch+ platform, the application, together with the auto-generated form(s), will be transmitted automatically to the required authority for approval. If approved, the application, together with the applicable form(s), will automatically be sent to the IAEA through the online platform.

NOTE: The application for financial support should be made, together with the submission of the application, by 11 August 2024.

For additional information on how to apply for an event, please refer to the <u>InTouch+ Help</u> page. Any other issues or queries related to InTouch+ can be sent to <u>InTouchPlus.Contact-Point@iaea.org</u>.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the Agency's Personal Data and Privacy Policy and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate. Further information can be found in the Data Processing Notice concerning IAEA InTouch+ platform.

## **Papers and Presentations**

The IAEA encourages participants to give presentations on the work of their respective institutions that falls under the topics listed above.

Participants are requested to submit an abstract of their work. The abstract should be in A4 page format, should extend to no more than 2 pages (including figures and tables) and should not exceed 1500 words. It should be sent electronically to [Name], the Scientific Secretary of the event (see contact details below), not later than 11 August 2024.

In addition to the registration already submitted through the InTouch+ platform, participants have to submit the abstract, together with the Form for Submission of a Paper (Form B), to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or organization for onward transmission to the IAEA not later than **11 August 2024**.

## **Expenditures and Grants**

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the event.

The application for financial support should be made, together with the submission of the application, by 11 August 2024.

### Venue

The event will be held at the Vienna International Centre (VIC), where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page:

#### www.iaea.org/events.

Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

### Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

### **IAEA Contacts**

#### **Scientific Secretary:**

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### **Administrative Secretary:**

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary/Secretaries and correspondence on other matters related to the event to the Administrative Secretary.

## **Event Web Page**

Please visit the following IAEA web page regularly for new information regarding this event:

www.iaea.org/events/EVT2304632

Enclosure: Form for Submission of a Paper (Form B) (if 'Abstract/Paper submission requested)