



**IAEA**

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国际原子能机构

International Atomic Energy Agency

Agence internationale de l'énergie atomique

Международное агентство по атомной энергии

Organismo Internacional de Energía Atómica

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The Secretariat of the International Atomic Energy Agency (IAEA) presents its compliments to the IAEA's Member States and has the honour to draw their attention to the **Technical Meeting for Managing Obsolescence, Spare Parts and Replacement in Operating Nuclear Power Plants** (hereinafter referred to as "event") to be held at the IAEA's Headquarters in Vienna, Austria, from **27 to 29 July 2020**.

The purpose of the event is to review a draft IAEA Technical Document on inventory control of spare parts and obsolescence management for nuclear power plants. Participants will be able to present their views on effective obsolescence strategies and indicator types that could apply to all utilities and identify obsolescence issues to reduce risk and vulnerabilities associated with equipment reliability.

The attached Information Sheet provides further details of the event.

The event will be held in English.

Member States are invited to designate one or more participants to represent the Government at this event. Member States are strongly encouraged to identify suitable women 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 at the time of designating the using the attached Grant Application Form (Form C).

It should be noted that compensation is not payable by the IAEA for any damage to or loss of personal property. The IAEA also does not provide health insurance coverage for participants in IAEA events. Arrangements for private insurance coverage on an individual basis should therefore be made. The IAEA will, however, provide insurance coverage for accidents and illnesses that clearly result from any work performed for the IAEA.

Designations should be submitted to the IAEA through the competent national authority (Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) not later than **29 May 2020** using the attached Participation Form (Form A). Completed and authorized Participation Forms should be sent either by email to: [Official.Mail@iaea.org](mailto:Official.Mail@iaea.org) or by fax to: +43 1 26007 (no hard copies needed). Copies should be sent by email to the Scientific Secretary of the event, Mr Aninda Dutta Ray, Division of Nuclear Power, Department of Nuclear Energy (Email: [A.Dutta-Ray@iaea.org](mailto:A.Dutta-Ray@iaea.org)), and to the Administrative Secretary, Ms Olga Gloeckler (Email: [O.Gloeckler@iaea.org](mailto:O.Gloeckler@iaea.org)). The Scientific Secretary of the event will liaise with the participants directly concerning further arrangements, including travel details, as appropriate, once the official designations have been received.

Should Governments wish, in addition, to appoint one or more observers to assist and advise the designated participants, they are kindly requested to inform the IAEA of the names and contact details of any such observers by the above date. In accordance with the established rules, Governments are expected to bear the cost of attendance of any observers they may send to IAEA events. Compensation is not payable by the IAEA for any damage to or loss of observers' personal property or for illness, injury or death occurring while travelling to or in connection with their attendance at IAEA events.

The Secretariat of the International Atomic Energy Agency avails itself of this opportunity to renew to the IAEA's Member States the assurances of its highest consideration.



2020-04-14

Enclosures:    Information Sheet  
                  Participation Form (Form A)  
                  Grant Application Form (Form C)



# **Technical Meeting for Managing Obsolescence, Spare Parts and Replacement in Operating Nuclear Power Plants**

**IAEA Headquarters  
Vienna, Austria**

**27–29 July 2020**

**Ref. No.: EVT1904664**

## **Information Sheet**

### **A. Background**

The inventory management function encompasses a wide range of activities, processes and personnel at an operating nuclear power plant (NPP). This includes the warehouse where spare parts are stored, the maintenance and work planners who work to ensure spare parts will be available at the right time, and purchasers receiving requests to order or re-order materials. Spare and replacement parts for safety-classified items are typically expensive and have limited shelf lives. Understanding how many spares to stock and when to re-order is not always trivial. Spare part availability impacts operational aspects because the lack of necessary parts can result in forced or extended plant outages. The traceability of spare parts and ensuring their suitability for use as they enter, exit and sometimes return to the warehouse is a matter of operational safety.

Obsolescence issues can challenge the management of inventory by rendering the procurement of a spare part impossible. The management of obsolescence helps to ensure the right spare parts will be available at the right time even in cases where the products are no longer available from the manufacturer, or will be discontinued sometime in the future. There are many reasons why obsolescence may occur and the strategies for tackling obsolescence are equally diverse.

Some NPPs have struggled with steady, uncontrolled growth of inventory putting a strain on warehouses. In addition, less than optimal coordination between maintenance, work planning and scheduling often leads to inefficiencies in the material supply process; these inefficiencies may manifest in terms of poor labour utilization, for example. Contingency measures have looked to reduce excess inventory by re-evaluating safety and re-order levels, cleaning up duplicate stock codes and, in some cases, partnering with vendors or other NPPs to jointly warehouse stock. Enhanced screening of procurement activities is another means by which operating organizations have sought to challenge the need for buying new spare parts. Inventory optimisation seeks to define the optimal level of inventory that minimizes cost, while providing a certain confidence level that needed spares will be there as required.

The management NPP inventory is vital to safe, efficient and sustainable operation. As NPPs and their supply chains age, securing spare and replacement parts can become more challenging. A utility that is constantly examining the efficiency of their inventory management function should consistently remain more efficient.

Complexity exists in the interfaces between functions, departments, and responsibilities at NPPs when it comes to managing obsolescence, spare parts and replacements. Different NPPs manage these matters in sometimes very different ways. With many possible configurations, there is no one right answer for how the inventory management should be integrated into the operating organization.

Recognizing the relevance of the above-mentioned issues, the IAEA is finalizing a new TECDOC entitled *Inventory Management in Nuclear Power Plants: Lessons Learned and Good Experiences* to provide information and examples to Member States in this area.

## **B. Purpose**

The purpose of the event is to review a draft IAEA Technical Document on inventory control of spare parts and obsolescence management for nuclear power plants. Participants will be able to present their views on effective obsolescence strategies and indicator types that could apply to all utilities and identify obsolescence issues to reduce risk and vulnerabilities associated with equipment reliability.

The objectives of the event are to:

- Share experiences and lessons learned in the inventory management function at operating NPPs
- Present effective obsolescence strategies and the type of indicators which may be applicable to a wide range of operators.
- Review the draft IAEA TECDOC entitled *Inventory Management in Nuclear Power Plants: Lessons Learned and Good Experiences*;
- Collect real-world examples which could be included in the TECDOC

## **C. Expected Outcome**

The primary outcome of this meeting will be an improved understanding — among Member States with established nuclear power programmes as well as those with expanding programmes and newcomer countries — of inventory and obsolescence management. The expected output is examples of lessons learned and good practices related to managing obsolescence, spare parts and replacements in operating NPPs.

The secondary outcome will be the collection of information based on feedback and inputs from Member States on their challenges and needs in order to improve the focus of IAEA activities related to design decisions, design control and technical support processes and programmes.

## D. Topics

Presentations are invited on all approaches that are related to inventory and obsolescence management strategies and practices at NPPs. The following list provides examples of presentation topics that would be appropriate for the meeting:

- Basis of inventory management
- Experiences and lessons learned
- Integration of maintenance, operations, engineering support, and procurement functions as it relates to inventory management
- Optimizing the inventory management function and stocking levels
- Data analytics for inventory and obsolescence management
- Maintenance strategies in the context of inventory management
- Processing of material requests, reorders and returns
- Risk-informed approaches to spare and replacement part stocking
- Key performance indicators and stock level setting practices
- Warehouse management and in-service maintenance good practices
- Shelf-life management and extension
- The impacts of globalization, obsolescence, life extensions, commercial grade dedication and premature shutdowns on inventory control methods
- Multi-site or multi-organization inventory management or warehousing examples including alliances or vendor stocking programs
- Managing and avoiding duplicate stock codes
- Maintaining inventory traceability
- Digitalization in the area of inventory management

## E. Presentations

Participants will be asked to give a presentation on a specific topic. Topics may include those listed above. Presentations will ideally include real-world examples which could be included in the IAEA TECDOC entitled *Inventory Management in Nuclear Power Plants: Lessons Learned and Good Experiences*. Presentations should be prepared as Microsoft PowerPoint (.ppt) or Portable Document Format (.pdf) files. Computer-based projection facilities will be provided. Authors are requested to provide the Scientific Secretary (see Section M) with electronic copies of their presentation files in advance of their scheduled presentation slot so that the files can be duly uploaded. Electronic versions of the presentations are also necessary to ensure timely issuance of the proceedings to be prepared and distributed in electronic form.

## F. Working Material

The draft manuscript of the IAEA TECDOC entitled *Inventory Management in Nuclear Power Plants: Lessons Learned and Good Experiences* will be provided to the participants prior to the meeting. This draft will serve as the basis for dialogues at the meeting. Participants will be requested to review selected parts of the document and to provide their remarks and comments.

## **G. Target Audience**

In view of the subject of the meeting, participation is limited to IAEA Member States that currently operate NPPs or are constructing their first NPP units. Participation is solicited from representatives of NPPs, utilities, technical support organizations, vendors, and others engaged in managing obsolescence, spare parts and replacements in operating NPPs. To ensure maximum effectiveness in the exchange of information, participants should be persons actively involved in the subject matter of the meeting.

## **H. Administrative and Financial Arrangements**

No registration fee is charged to participants. The costs of the meeting facilities and logistic support will be borne by the IAEA. Travel and subsistence expenses of participants may be borne by the IAEA utilizing the limited funds that are available to help cover the cost of certain participants. Such assistance can be offered upon specific request to one or two participants per country, provided that, in the IAEA's view, the participant(s) will make an important contribution to the meeting and that, where assistance is requested for two participants, they represent different national organizations. The application for financial support should be made at the time of designating the participant(s).

It should be noted that compensation is not payable by the IAEA for any damage to or loss of personal property. The IAEA also does not provide health insurance coverage for participants in meetings, workshops or training courses or for consultants. Arrangements for private insurance coverage on an individual basis should therefore be made. The IAEA will, however, provide insurance coverage for accidents and illnesses that clearly result from any work performed for the IAEA.

## **I. Application Procedure**

Designations should be submitted using the attached Participation Form (Form A). Completed forms should be endorsed by the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) and returned through the established official channels. They must be received by the IAEA not later than **29 May 2020**. Designations received after that date or applications sent directly by individuals or by private institutions cannot be considered. Designating Governments will be informed in due course of the names of the selected candidates and at that time full details will be given on the procedures to be followed with regard to administrative and logistic matters.

## **J. Visas**

Designated participants should submit the necessary visa application to the nearest diplomatic or consular representative of Austria, as soon as possible. Visa arrangements, including transit visas, are the sole responsibility of the participants, who should initiate the necessary action for obtaining a visa prior to departure.

## **K. Working Language**

The working language of the meeting will be English; no interpretation will be provided.

## **L. Local Arrangements**

The event will be held at the IAEA's Headquarters in Vienna, Austria and will start on Monday, 27 July 2020 at 9:00 a.m. in Boardroom A, Building M of the Vienna International Centre (VIC) and end on Wednesday, 29 July 2020.

Participants are kindly requested to arrive at Gate 1 of the VIC at least an hour before the meeting in order to allow adequate time for security checks and registration. They will be asked to present some form of photo identification, such as a national passport.

The following IAEA web page can be accessed for more detailed information on Vienna and the VIC:  
<http://www-pub.iaea.org/iaecameetings/GeneralInfo/Guide/VIC>

## **M. IAEA Secretariat**

The IAEA Scientific Secretary for the meeting is Mr Aninda Dutta Ray of the Department of Nuclear Energy. His contact details are:

**Mr Aninda Dutta Ray**

Nuclear Power Engineering Section  
Division of Nuclear Power  
Department of Nuclear Energy  
International Atomic Energy Agency  
Vienna International Centre  
PO Box 100  
1400 VIENNA  
AUSTRIA

Tel.: +43 1 2600 22819

Email: [A.Dutta-Ray@iaea.org](mailto:A.Dutta-Ray@iaea.org)

Administrative Secretary:

**Ms Olga Gloeckler**

Nuclear Power Engineering Section  
Division of Nuclear Power  
Department of Nuclear Energy  
International Atomic Energy Agency  
Vienna International Centre  
PO Box 100  
1400 VIENNA  
AUSTRIA

Tel.: +43 1 2600 22804

Email: [O.Gloeckler@iaea.org](mailto:O.Gloeckler@iaea.org)

Enquiries about the meeting should be sent by email to the IAEA Scientific Secretary, **Mr Aninda Dutta Ray**, with a copy to the Administrative Secretary, **Ms Olga Gloeckler**.





# Participation Form

## Technical Meeting for Managing Obsolescence, Spare Parts and Replacement in Operating Nuclear Power Plants

**IAEA Headquarters, Vienna, Austria**

**27–29 July 2020**

To be completed by the participant and sent to the competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA, or National Atomic Energy Authority) of his/her country for subsequent transmission to the International Atomic Energy Agency (IAEA) either by email to: [Official.Mail@iaea.org](mailto:Official.Mail@iaea.org) or by fax to: +43 1 26007 (no hard copies needed). Please also send a copy by email to the Scientific Secretary [[A.Dutta-Ray@iaea.org](mailto:A.Dutta-Ray@iaea.org)] and to the Administrative Secretary [[O.Gloeckler@iaea.org](mailto:O.Gloeckler@iaea.org)].

**Deadline for receipt by IAEA through official channels: 29 May 2020**

Family name(s): (same as in passport)		First name(s): (same as in passport)	Mr/Ms
Institution:			
Full address:			
Tel. (Fax):			
Email:			
Nationality:	Representing following Member State/non-Member State/entity or invited organization:		
If/as applicable: Do you intend to submit a paper? Yes <input type="checkbox"/> No <input type="checkbox"/> Would you prefer to present your paper as a poster? Yes <input type="checkbox"/> No <input type="checkbox"/> Title:			



# Grant Application Form

## Technical Meeting for Managing Obsolescence, Spare Parts and Replacement in Operating Nuclear Power Plants

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**Deadline for receipt by IAEA through official channels: 29 May 2020**

Family name(s): (same as in passport)	First name(s): (same as in passport)	Mr/Ms:
Mailing address:	Tel.:	
	Fax:	
	Email:	
Date of birth (yy/mm/dd):	Nationality:	

### 1. Education (post-secondary):

Name and place of institution	Field of study	Diploma or Degree	Years attended from to	

### 2. Recent employment record (starting with your present post):

Name and place of employer/ organization	Title of your position	Type of work	Years worked from to	

### 3. Description of work performed over the last three years:

### 4. Institute's/Member State's programme in field of event:

Date:                      Signature of applicant: \_\_\_\_\_

Date:                      Name, signature and stamp of Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority \_\_\_\_\_