

Atoms for Peace and Development

الوكالة الدولية للطاقة الذرية 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 Energia Atómica

Vienna International Centre, PO Box 100, 1400 Vienna, Austria Phone: (+43 1) 2600 • Fax: (+43 1) 26007 Email: Official.Mail@iaea.org • Internet: https://www.iaea.org

In reply please refer to: EVT1903886 Dial directly to extension: (+43 1) 2600-22865

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 on Isotope Production in Large Water Cooled Reactors and Small Modular Reactors** (hereinafter referred to as "event") to be held at the IAEA's Headquarters in Vienna, Austria, from **5** to **8** October **2020**.

The purpose of the event is to provide a forum for information exchange on the feasibility of isotope production in large water cooled reactors and small modular reactors, with a focus on the "built-in by design" feature of new reactors.

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 participants 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 20 June 2020 using the attached Participation Form (Form A). Completed and authorized Participation Forms should be sent either by email to: 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, Ms Tatjana Jevremovic, Division Nuclear Power, Department of of Nuclear (Email: T.Jevremovic@iaea.org), and to the Administrative Secretary, Ms Safa Abu Toameh (Email: S.Abu-Toameh@iaea.org). The Scientific Secretary of the event will liaise with the participants directly concerning further arrangements, including travel details, as appropriate, once 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.



2020-04-16

Enclosures: Information Sheet

Participation Form (Form A)

Form for Submission of a Paper (Form B)

Grant Application Form (Form C)



Technical Meeting on Isotope Production in Large Water Cooled Reactors and Small Modular Reactors

IAEA Headquarters Vienna, Austria

5–8 October 2020

Ref. No.: EVT1903886

Information Sheet

Introduction

The demand for various radioisotopes for applications in medicine, industry, agriculture, and research is increasing worldwide.

The production of radioisotopes started in the 1950s with the commissioning of research reactors. Currently, they are produced either in accelerators (neutron-deficient radioisotopes with relatively short half-lives) or in research reactors (neutron-rich radioisotopes with relatively long half-lives). Commercial large power reactors are usually not used to produce radioisotopes. However, some countries such as Argentina, Canada, Hungary, India and the Russian Federation produce certain radioisotopes in water cooled power reactors. For example, in Canada, using Canada deuterium-uranium reactors, hydrogen-3 is recovered from heavy water coolant and cobalt-60 is produced in dedicated adjuster rods. China and India produce cobalt-60 in their pressurized heavy water reactors.

In the United States of America, the production of cobalt-60, a radioisotope that is used in the treatment of certain cancers and in the sterilization of medical devices and food, as well as the potential to produce molybdenum-99 (which is used to produce technetium-99m) in a nuclear power plant (NPP) host

facility, were both pursued some years ago. In the Russian Federation, several large NPPs with high-power channel-type reactors are currently producing cobalt-60.

Although small modular reactors (SMRs) will not be deployed in large numbers in the near future, interest in them is growing, and the number of designs offered for near term deployment is increasing. Many SMR developers are considering other potential streams of revenue, including radioisotope production. It is clear that some technologies, especially molten salt reactors, should facilitate the chemical extraction of multiple radioisotopes, but these reactors are not generally accepted for near term deployment. However, some progress has been made recently to start licensing and building experimental facilities in order to make up for limited experience in this area.

Presently, various new generation advanced water cooled reactors (including large pressurized water reactors (PWRs) and boiling water reactors (BWRs)), as well as multiple SMR designs (with integral-PWR, BWRs and high temperature gas cooled reactors seen as the more mature technologies) are under development for the cogeneration of electricity and process heat. Their technical viability for producing medical radioisotopes has not yet been investigated. More research has been conducted into the potential of other advanced reactor technologies, especially molten salt reactors, but this potential needs to be demonstrated. Therefore, this event is open to innovative technical and scientific suggestions on this subject. Additionally, the production shortage of medical radioisotopes means that their security of supply must be ensured, pointing to a need for alternative approaches.

Objectives

The event will have the following specific objectives, with an emphasis on developing a better understanding among drivers for innovation in the production of radioisotopes:

- To share state-of-the-art knowledge and experience in conducting studies on radioisotope production technology utilizing large power reactors and SMRs;
- To share operating experience and lessons learned from utilities presently producing radioisotopes in their power reactors;
- To exchange information on the drivers for innovation and development of new and innovative radioisotope production methods and concepts, as well as on the associated needs for new research and development (R&D) and gap analyses to address the advantages and challenges associated with the use of large power reactors and SMRs;
- To discuss national policies in Member States and the current market demand for radioisotope use in medicine, agriculture, industry and research; to identify their challenges, such as shortage of supply;
- To discuss the advantages and disadvantages of producing radioisotopes in power reactors, including financial considerations;
- To review specific reactor designs and technology features of large power reactors and SMRs required for the coproduction of radioisotopes such as Molybdenum-99 and technetium-99m for medical purposes;
- To plan for a potential feasibility study in Member State(s) or an IAEA coordinated research project on the subject; and
- To propose new initiatives in the field to be addressed by specific joint actions.

The event programme will include discussion sessions to enable participants to contribute to the summary and highlights of the meeting and to make recommendations to the IAEA on future activities in this area. Participants from both nuclear newcomer countries and established nuclear Member States are invited to share their programmes, projects and perspectives.

Target Audience

The event is open to representatives from Member State organizations, including government organizations (policymakers, analysts, regulators and R&D agencies), and industry (vendors, engineering companies, plant operators, technology developers and end users).

The event will also be of interest to professionals involved in education and training activities in the field of nuclear engineering, including but not limited to university professors, simulator developers, simulator vendors, training specialists, young professionals and regulators.

The event is, in principle, open to all officially designated persons. The IAEA, however, reserves the right to limit participation should this become necessary due to limitations imposed by the available seating capacity. It is therefore recommended that interested persons take the necessary steps to obtain their official designation as early as possible.

Please note that due to the specific subject of the event, all persons wishing to participate are expected to submit a paper and provide information by the deadlines specified below.

Working Language(s)

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

Expected Outputs

Contributions in the form of papers, presentations and session discussion summaries will result in the preparation of an IAEA Technical Document (TECDOC). This TECDOC is intended to be an objective summary of reference information for interested organizations, individuals and decision makers from countries operating nuclear power plants and those embarking on, or considering implementing, new nuclear power programmes, as well as from countries expanding their existing programmes, with a particular interest in the utilization of power reactors for radioisotope production.

Further expected outputs of the event include:

• The collection of up-to-date information from Member States and stakeholders on radioisotope production in large power reactors and SMRs, key design challenges, technical, business and policy solutions, innovations and advantages;

- The exchange of information on ongoing and planned programmes and projects in Member States; and
- The production of a meeting report (for subsequent development of the TECDOC) summarizing the discussions held, the results presented and the recommendations made to the IAEA.

Topics

The event will include technical sessions and discussion sessions addressing special topical areas related to technology innovations and the key challenges and advantages of using power reactors for radioisotope production. More specifically, it will include the following topics:

- Lessons learned from current NPP operations producing radioisotopes;
- Radioisotopes suited for production in power reactors;
- Factors to be considered when producing radioisotopes in power reactor:
 - o Its effect on reactor design;
 - o The effects of radioisotope target insertion on reactor core design and operation;
 - o The effect of radioisotope production on the refuelling cycle;
 - o The benefits and advantages of inserted targets as neutron poison;
 - The need to change fuel design.
- Planning for radioisotope production during reactor design;
- Interest of reactor designers and vendors and/or fuel manufacturers in radioisotope target irradiations:
- Gaps in R&D;
- Potential for innovation; and
- Other considerations (legal, financial and impact on the current radioisotope market).

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, participants are requested to send the **Participation** Form (Form A) to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for onward transmission to the IAEA by 20 June 2020. Participants who are members of an organization invited to attend are requested to send the **Participation Form (Form A)** through their organization to the IAEA by the above deadline.

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

Please note that the IAEA is in a transition phase to manage the entire registration process for all regular programme events electronically through the new InTouch+ (https://intouchplus.iaea.org) facility, which is the improved and expanded successor to the InTouch platform that has been used in recent years for the IAEA's technical cooperation events. Through InTouch+, prospective participants will be

able to apply for events and submit all required documents online. National authorities will be able to use InTouch+ to review and approve these applications. Interested parties that would like to use this new facility should write to: InTouchPlus.Contact-Point@iaea.org.

Papers and Presentations

Technical papers from contributors are being sought on topics that will contribute directly to the objectives of the event.

Technical papers should be written following the instructions provided in the Appendix, and must be submitted electronically in the form of a Microsoft Word document, together with **Form B**, to the Scientific Secretaries of the meeting Ms Tatjana Jevremovic (Email: <u>T.Jevremovic@iaea.org</u>) and Mr Frederik Reitsma(<u>F.Reitsma@iaea.org</u>). The deadline for submission of papers is **15 July 2020**.

Those authors whose papers are accepted will be informed of the acceptance of their contributions by **1 September 2020**. They will then be requested to prepare and submit their presentations in Microsoft PowerPoint or PDF format by email to the Scientific Secretaries of the meeting, Ms Tatjana Jevremovic (Email: <u>T.Jevremovic@iaea.org</u>) by **30 September 2020**.

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 using the **Grant Application Form (Form C)**, which has to be stamped, signed and submitted by the competent national authority to the IAEA together with the **Participation Form (Form A)** by **20 June 2020**.

Venue

The event will be held at the Vienna International Centre (VIC), where the IAEA's Headquarters are located. It will take place in Room M6, M Building. 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: http://www-pub.iaea.org/iaeaevents/GeneralInfo/Guide/VIC.

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.

Key Deadlines

20 June 2020	Submission of Form A (Participation Form) Submission of Form B (Form for Submission of a Paper) Submission of Form C (Grant Application Form), if applicable.
15 July 2020	Submission of a paper (in Microsoft Word format) (Required format is provided in the Appendix)
1 September 2020	Notification of acceptance of paper by the IAEA
30 September 2020	Submission of presentation (as a Microsoft PowerPoint or PDF file)
5–8 October 2020	Technical Meeting at the VIC, Vienna, Austria

IAEA Contacts

Scientific Secretaries:

Ms Tatjana Jevremovic

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 22865 Fax: +43 1 2600 29598

Email: <u>T.Jevremovic@iaea.org</u>

Mr Frederik Reitsma

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 22565 Fax: +43 1 2600 29598 Email: F.Reitsma@iaea.org

Administrative Secretary:

Ms Safa Abu Toameh

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 25795 Fax: +43 1 2600 29598

Email: S.Abu-Toameh@iaea.org

Appendix

IAEA Required Format

Paper length: min 8 pages, max ANY number

Paper format to strictly follow the below instructions

TITLE 14 point bold Times New Roman

Name of Authors and Affiliations, 12 point Times New Roman

Default language: Should be set to English (UK). However, please note that IAEA style is to use "...zation" rather than "...sation" and "...ize" rather than "...ise" in the corresponding verbs.

Headings and Subheadings: Do not use more than four levels of heading. The number should always end with a full stop.

Headings and subheadings are numbered to facilitate reference, and should be typed as follows:

1. INTRODUCTION	12 POINT TIMES NEW ROMAN CAPITAL
1.1. INTRODUCTION	12 POINT TIMES NEW ROMAN
1.1.1 Brief history	12 point Times New Roman bold
1.1.1.1 The early days	12 point Times New Roman Italics

Fonts for the text: Times New Roman. The font size can either be 11 or 12. It should be consistent throughout the manuscript.

Page Layout:

Paper size: Standard, 21 cm × 29.7 cm (A4).
 Page set-up: Margins: top: 2 cm; bottom: 2.7 cm; left/right: 2.5 cm.
 Alignment of text: Should be set at 'justified'. The first line of a paragraph should not be indented.
 Line spacing: Line spacing should be set at 'single'. Leave a line of blank space between paragraphs.
 Numbering of pages: Alignment outside (under Page Setup/Layout/Headers and Footers, select 'different odd and even'), with numbers in Times New Roman 11 point.
 Leave only one space after a full stop.

Figures and Tables:

- Tables and Figures should be incorporated in the text and not be listed in the end of the manuscript as Annexes. They should be placed close to their first in-text citation.
- Tables and Figures should be numbered consecutively throughout all sections and appendices.
- The size of the table headings and the tables itself should be the same as the size used for the text and this throughout the manuscript. If you have big tables you may use one size smaller, but again the same size should apply throughout the document.
- For **figure** captions, if possible, use one size smaller.
- Do not wrap text around tables and figures.

Figure numbering and captions: Arabic numerals and italics should be used.

The caption should begin at the left-hand margin unless it is shorter than the type width (for portrait figures) or type length (for landscape figures) of the page, in which case it is centred on the page.

A full stop should be added at the end of the figure caption.

The figure precedes the figure caption.

Example:

FIG. 24. Determination of optimum contact time for uranium extraction [5].

FIG. 25. Tonnage of uranium recoverable from EAR-I at costs of up to US \$80/kg U for the period from 1977 to 1990.

Table numbering and headings: Arabic numerals and capitals should be used (no full stop at the end of the table heading).

The Table caption precedes the table.

Example:

TABLE 1. CALCULATED MINIMUM DETECTION LIMITS (MDL)

Element	MDL
	(ppm)
Cu	5
Zn	6
Pb	12

9

11°

References:

The title 'REFERENCES' is written in 12 point capitalized, Times New Roman bold without any numbering in front. There is no line space between references. References should start on an odd numbered page. References are cited in the text as numbers in square brackets, e.g. [10] corresponding to the order in which they are first mentioned. The order of the items in a reference is indicated below by the numbers in parentheses and illustrated by examples. Inclusion of the titles of articles from journals or conference proceedings is necessary.

A. Books and reports

- (1) Name(s) of author(s) or editor(s): surname first, fully capitalized, followed by a comma; then the initial(s), followed by a comma (if the first (or given) name is required in full, only the first letter is capitalized); 'Jr.' or 'III' last, followed by a comma. Editors' names given instead of authors are followed by (Ed.) or (Eds). For a report, if no author is named then the corporate author (if any), i.e. the originating institution, should be given, spelled out in full, in capitals.
- (2) Title of book or report, with initial capitals, followed by a comma, then followed by the edition number if necessary (e.g. '2nd edn'). If the work cited is the proceedings of a meeting, 'Proc. Conf.', 'Proc. Symp.', etc., followed by the name of the town, a comma and the year of the meeting, should be added in parentheses (see Ref. [2]).
- (3) Volume number in Arabic numerals (even when the volume number in the work cited is in Roman numerals), written as, for example, 'Vol. 1', and not as for journals (see Section C below).
- (4) Report number, if any and IAEA Series type, if relevant.
- (5) (a) Name of publisher, without Ltd, Inc., & Co., etc. (but note Pergamon Press, Academic Press); or (b) Name of originating institution in full (see Ref. [3]).
- (6) (a) The place of publication must be included (maximum two places); or (b) For reports, the place of origin must be included if not already part of the name of the originating institution (compare Refs [4] and [3]).
- (7) The year of publication, in parentheses.
- (8) The number of pages may be given (see Ref. [1]).
- (9) All references end with a full stop.

Examples:

- [1] STEPHENSON, R., Introduction to Nuclear Engineering, 2nd edn, McGraw-Hill, New York (1958) 491 pp.
- [2] Plasma Physics and Controlled Nuclear Fusion Research 1994 (Proc. 15th Int. Conf. Seville, 1994), 4 vols, IAEA, Vienna (1995).
- [3] TEVEPAUGH, C.W., Impact of the Resource Conservation and Recovery Act on Energy Facility Siting, Rep. ORNL/TM-7768, Oak Ridge Natl Lab., TN (1982).
- [4] DOUGLAS, R.L., HANDS, J.M., Jr., Gamma Radiation Surveys at Inactive Uranium Mill Sites, Technical Note ORP/LV-75-5, Office of Radiation Programs, Environmental Protection Agency, Las Vegas, NV (1975).
- [5] INTERNATIONAL ATOMIC ENERGY AGENCY, Quality Assurance in Biomedical Neutron Activation Analysis, IAEA-TECDOC-323, IAEA, Vienna (1984).

B. Articles and chapters in books and reports

- (1) Name(s) of author(s), as in A(1) above.
- (2) Title of article or chapter in double quotation marks, with an initial capital only for the first word (see Ref. [5]) and, of course, for proper nouns (see Ref. [6]).
- (3) Title of book or report, as in A(2) above. If the article or chapter title is not given, the book or report title should be preceded by 'in' (see Ref. [7]).
- (4) Volume number, as in A(3) above (see Ref. [9]).
- (5) Name(s) of editor(s) in capitals, followed by a comma and the abbreviation Ed. or Eds, all in parentheses, if the publication is a collection of papers by various authors (see Ref. [5]).
- **(6)** As for A(4-7) above.
- (7) First page number of article or chapter (and the last if known), or the section or chapter number, followed by a full stop.

Examples:

- [5] HOWLAND, G.P., HART, R.W., "Radiation biology of cultured plant cells", Applied and Fundamental Aspects of Plant Cell, Tissue, and Organ Culture, 2nd edn (REINERT, J., BAJAJ, Y.R.S., Eds), Springer-Verlag, Berlin (in press).
- [6] BURKE, S.D., HOWELL, J.P., "Impact of prolonged wet storage of DOE reactor irradiated nuclear materials at the Savannah River Site", Proc. Topical Mtg on DOE Spent Nuclear Fuel — Challenges and Initiatives, Salt Lake City, 1994, USDOE, Washington, DC (1994) 118–124.
- [7] GLASSER, A.H., CHANCE, M.S., DEWAR, R.L., in Controlled Fusion and Plasma Physics (Proc. 9th Eur. Conf. Oxford, 1979), Vol. 1, Culham Lab., Abingdon (1979) Sect. A3.1.
- [8] KAUFMAN, L., DEW HUGHES, D., in Proc. Conf. on Calculation of Phase Diagrams and Thermochemistry of Alloy Phases, Pittsburgh, PA, 1979.
- [9] GRAMBOW, B., LUTZE, W., "Chemical stability of a phosphate glass under hydrothermal conditions", Scientific Basis for Nuclear Waste Management (Proc. Workshop, Boston, 1979), Vol. 2 (NORTHRUP, C.J.M., Jr., Ed.), Plenum Press, New York (1980) 109-116.

Notes: [i] No commas are needed between the place of publication, the year of publication in parentheses and the page number.

- [ii] The year of the meeting and the year of publication should both be given, even when they are the same.
- [iii] When the published title of the proceedings is unknown, as much information as possible should be given. If the year of publication is unknown, the year of the meeting should be given, but not in parentheses.

C. Articles in journals

- Name(s) of author(s), as in A(1) above.
- (2) Title of article if known, not in quotation marks and with initial capitals only for the first word and for proper nouns.
- (3) Title of journal, correctly abbreviated.
- (4) Volume number in Arabic numerals, in bold type, not preceded by 'Vol.'
- (5) Issue number (only required when each issue has page numbers starting from 1 see Refs [10, 11]).
- (6) Year of publication in parentheses and bold.
- (7) First page number of article (and the last if known).

Examples:

- [10] PEACOCK, K.L., Design of discrete bandpass filters for petroleum exploration, Oil Gas J. 83 42 (1985) 121.
- [11] ROYLE, A.F., Why geostatistics? Eng. Min. J. 180 5 (1979) 92.
- [12] COCHRANE, M.P., DUFFS, C.M., Endosperm cell number in barley, Nature 289 (1981) 399.

D. Other types of reference

A patent (as much information as possible should be supplied):

[13] MACEDO, P.B., LITOVITZ, T.A., SIMMONS, J.H., Fixation of Radioactive Materials in a Glass Matrix, Australian Patent 78/34388/B/, Int. C1. CO3C 3/30, G21F 9/34, Sep. 1982, filed Mar. 1978; copies available from Commissioner of Patents, Canberra.

A paper without proceedings:

[14] AHLF, J., BELLMANN, D., DITTMER, H., MARTENS, H., "An irradiation capsule for reactor pressure vessel steel with a large specimen volume", IAEA-SR-77/54, paper presented at IAEA Sem. on Research Reactor Operation and Use, Jülich, 1981.

An abstract:

[15] KECKWICK, R.A., Jr., "Labelled antibody technique in communicable disease", Proc. 2nd World Congr. on Nuclear Medicine, Washington, DC, 1978 (abstract).

An IAEA Information Booklet:

[16] INTERNATIONAL ATOMIC ENERGY AGENCY, Nuclear Power, the Environment and Man, Information Booklet, IAEA, Vienna (1984).

Part of the US Code of Federal Regulations:

[17] NUCLEAR REGULATORY COMMISSION, Licensing Requirements for Land Disposal of Radioactive Waste, 10 CFR 61, US Govt Printing Office, Washington, DC (1983).

An electronic publication:

[18] UNITED STATES DEPARTMENT OF ENERGY, Aerosol Fog System for Fixing Radioactive Contamination, Technology Deployment Fact Sheet (1999), http://www.hanford.gov/techmgmt/factsheets/deploys/fogger.htm



Participation Form

Technical Meeting on Isotope Production in Large Water Cooled Reactors and Small Modular Reactors

IAEA Headquarters, Vienna, Austria

5-8 October 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 or by fax to: +43 1 26007 (no hard copies needed). Please also send a copy by email to the Scientific Secretary T.Jevremovic@iaea.org and to the Administrative Secretary S.Abu-Toameh@iaea.org.

Participants who are members of an invited organization can submit this form to their organization for subsequent transmission to the IAEA.

Deadline for receipt by IAEA through official channels: 20 June 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/n State/entity or invited organization:	on-Member
If/as applicable:		
Do you intend to submit a paper?	Yes No	
Would you prefer to present your paper as a partitle:	poster? Yes No	



Form for Submission of a Paper

Technical Meeting on Isotope Production in Large Water Cooled Reactors and Small Modular Reactors

IAEA Headquarters, Vienna, Austria

5-8 October 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 or by fax to: +43 1 26007 (no hard copies needed). Please also send a copy by email to the Scientific Secretary T.Jevremovic@iaea.org and to the Administrative Secretary S.Abu-Toameh@iaea.org.

Participants who are members of an invited organization can submit this form to their organization for subsequent transmission to the IAEA.

Deadline for receipt by IAEA through official channels: 20 June 2020

		.	
Title of the paper:			
If applicable: Abstract ID in IAEA	A-INDICO:		
Family name(s) and first name(s) of all author(s) (same as in passport(s):	Scientific establishment(s) in which the work has been carried out		City/Country
1.			
2.			
3.			
Family name and first name(s) of author presenting the paper (same as in passport): Mr/Ms:			
Mailing address:			
Tel. (Fax):			
Email:			

I hereby agree to assign to the International Atomic Energy Agency (IAEA):
the copyright; or
the non-exclusive, worldwide, free-of-charge licence (this option is only for those authors whose parent institution does not allow them to transfer the copyright for work carried out in that institution) granting the IAEA world rights for the use of the aforementioned material in this and any future editions of the publication, in all languages, and in all formats available now, or to be developed in the future (digital formats, hard copy etc.).
Please note: If granting the licence mentioned above, please supply any copyright acknowledgement text required.
Furthermore, I herewith declare:
that the material submitted to the IAEA is original, except for such excerpts from copyrighted works as may be included with the permission of the copyright holders thereof, has been written by the stated authors, has not been published before, and is not under consideration for publication by another entity;
that any permissions and rights to publish required for third-party content, including but not limited to figures and tables, have been obtained, that all published material is correctly referenced; and
that the material submitted to the IAEA does not contain any libellous or other unlawful statements and does not contain any materials that violate any personal or proprietary rights of any person or entity.
Date: Signature of main author:



Grant Application Form

Technical Meeting on Isotope Production in Large Water Cooled Reactors and Small Modular Reactors

IAEA Headquarters, Vienna, Austria

5-8 October 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 or by fax to: +43 1 26007 (no hard copies needed). Please also send a copy by email to the Scientific Secretary T.Jevremovic@iaea.org and to the Administrative Secretary S.Abu-Toameh@iaea.org.

Deadline for receipt by IAEA through official channels: 20 June 2020

First name(s):	(same as in passport)	Mr/Ms:			
Mailing address:		Tel.:			
	Fax:				
	Email:				
Date of birth (yy/mm/dd):		Nationality:			
Field of study	Diploma or Degree	Years atten			
		Irom	to		
rting with your	present post):				
	Type of work	Years work from	to		
	Field of study	Tel.: Fax: Email: Nationality: Field of study Diploma or Degree rting with your present post): Title of your Type of work	Tel.: Fax: Email: Nationality: Field of study Diploma or Degree Years attenfrom rting with your present post): Title of your Type of work Years work		

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	