

IAEA Technical Meeting on Proliferation Resistance Features of Fast Reactors and Associated Fuel Cycles



Report of Contributions

Contribution ID: 4

Type: **not specified**

Template submission

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Affiliation/Organization

affiliation1

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Co-author: VAN DER ENDE, Bryan (Canadian Nuclear Laboratories)

Presenter: Mr AUTHOR, A. N.

Track Classification: Track 1: Evaluation of Proliferation Resistance of Fast Reactors and Associated Fuel Cycles: Methodologies, Definitions, Assessment and Metrics

Contribution ID: 7

Type: **not specified**

NEUTRONIC PERFORMANCE OF THE (U-PU)O₂ AND (U-PU)N FUELS IN THE GAS-COOLED FAST REACTOR AND THE IMPACT ON THE PROLIFERATION RESISTANCE

Tuesday 19 August 2025 15:00 (30 minutes)

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Session Classification: Track 3: Proliferation Resistance Considerations for Nuclear Fuel Cycles

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Contribution ID: 8

Type: **not specified**

Ultrasonic In-Core Fuel Identification for Safeguarding Larger Core SMRs

Wednesday 20 August 2025 10:30 (30 minutes)

Speaker's title

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Affiliation/Organization

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Session Classification: Track 4: Safeguardability of Fast Reactors and Associated Fuel Cycles

Track Classification: Track 4: Safeguardability of Fast Reactors and Associated Fuel Cycles

Contribution ID: 9

Type: **not specified**

ALFRED PROLIFERATION RESISTANCE FEATURES

Tuesday 19 August 2025 10:00 (30 minutes)

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Session Classification: Track 2: Reactor Design Features for Enhancing Proliferation Resistance

Track Classification: Track 2: Reactor Design Features for Enhancing Proliferation Resistance

Contribution ID: 10

Type: **not specified**

EXPERIENCES IN METAL FUEL FABRICATION TECHNOLOGY TOWARDS A REMOTE RE-FABRICATION FACILITY

*Tuesday 19 August 2025 13:30 (30 minutes)***Speaker's title**

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Presenter: TV, Prabhu (IGCAR Kalpakkam)

Session Classification: Track 3: Proliferation Resistance Considerations for Nuclear Fuel Cycles

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Contribution ID: 11

Type: **not specified**

Assessing the Safeguardability of TerraPower's Natrium Reactor

Wednesday 20 August 2025 11:30 (30 minutes)

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Session Classification: Track 4: Safeguardability of Fast Reactors and Associated Fuel Cycles

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Contribution ID: 15

Type: **not specified**

PROLIFERATION RESISTANCE ASSESSMENT METHODOLOGY Development of a Methodology for Proliferation Resistance Optimisation of Advanced Reactors and Fuel Cycle Using Intrinsic Attributes

*Monday 18 August 2025 17:20 (30 minutes)***Speaker's title**

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Author: CHIRAYATH, SUNIL SUNNY (Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA)**Co-authors:** Mr JOSHI, Jay (Y-12 National Security Complex); Mr OSBORN, Jeremy (Sandia National Laboratories); HOGUE, Karen (Oak Ridge National Laboratory); Ms CRABTREE, Lauren (Sandia National Laboratories); Ms EVANS, Louise (Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA); Ms ARNO, Maggie (Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA); Mr HUBLEY, Nicholas (Los Alamos National Laboratory); CHAMBERLIN, Rebecca (Los Alamos National Laboratory); Mr SKUTNIK, Steven (Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA); Mr HANLON, Thomas (Y-12 National Security Complex)**Presenter:** CHIRAYATH, SUNIL SUNNY (Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA)**Session Classification:** Track 1: Evaluation of Proliferation Resistance of Fast Reactors and Associated Fuel Cycles: Methodologies, Definitions, Assessment and Metrics**Track Classification:** Track 1: Evaluation of Proliferation Resistance of Fast Reactors and Associated Fuel Cycles: Methodologies, Definitions, Assessment and Metrics

Contribution ID: 17

Type: **not specified**

Proliferation Resistance and Physical Protection (PR&PP) Evaluation Methodology in Support of PR&PP by Design for Fast Reactors and Associated Fuel Cycles

*Monday 18 August 2025 14:50 (30 minutes)***Speaker's title**

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Author: VAN DER ENDE, Bryan (Canadian Nuclear Laboratories)**Co-authors:** CIPITL, Benjamin (Sandia National Laboratories); Dr NGUYEN, Frederic (Commissariat à l'Énergie Atomique et aux Énergies Alternatives); RENDA, Guido (European Commission Joint Research Centre)**Presenter:** VAN DER ENDE, Bryan (Canadian Nuclear Laboratories)**Session Classification:** Track 1: Evaluation of Proliferation Resistance of Fast Reactors and Associated Fuel Cycles: Methodologies, Definitions, Assessment and Metrics**Track Classification:** Track 1: Evaluation of Proliferation Resistance of Fast Reactors and Associated Fuel Cycles: Methodologies, Definitions, Assessment and Metrics

Contribution ID: 18

Type: **not specified**

A PRELIMINARY STUDY OF A POTENTIAL FROND-END FAST REACTOR FUEL CYCLE FED BY A PEBBLE BED REACTOR'S SPENT FUEL

Tuesday 19 August 2025 14:00 (30 minutes)

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Session Classification: Track 3: Proliferation Resistance Considerations for Nuclear Fuel Cycles

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Contribution ID: 19

Type: **not specified**

Non-proliferation aspects of advanced recycling for fast reactors fuel cycle. Overview

Tuesday 19 August 2025 15:30 (30 minutes)

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Session Classification: Track 3: Proliferation Resistance Considerations for Nuclear Fuel Cycles

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Contribution ID: 20

Type: **not specified**

Proliferation Resistance Insights for Fast Reactors: A U.S. and International Perspective

Monday 18 August 2025 15:20 (30 minutes)

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Session Classification: Track 1: Evaluation of Proliferation Resistance of Fast Reactors and Associated Fuel Cycles: Methodologies, Definitions, Assessment and Metrics

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Contribution ID: 21

Type: **not specified**

An In-situ Feed Monitoring System for Molten Salt Reactors - With Fast Neutron Energy Spectrum Molten Salt Reactor Applications

Wednesday 20 August 2025 10:00 (30 minutes)

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Presenter: Dr HOGUE, Karen (Oak Ridge National Laboratory)

Session Classification: Track 4: Safeguardability of Fast Reactors and Associated Fuel Cycles

Track Classification: Track 4: Safeguardability of Fast Reactors and Associated Fuel Cycles

Contribution ID: 22

Type: **not specified**

Assessing a Proliferation Resistance Methodology: Sodium-Cooled Fast Reactor (SFR) Case Study

Monday 18 August 2025 16:20 (30 minutes)

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Presenter: ARNO, Margaret

Session Classification: Track 1: Evaluation of Proliferation Resistance of Fast Reactors and Associated Fuel Cycles: Methodologies, Definitions, Assessment and Metrics

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Contribution ID: 23

Type: **not specified**

NEUTRONIC EVALUATION OF U-MN ALLOY AS AN ALTERNATIVE FUEL FOR THE DUAL FLUID REACTOR

Tuesday 19 August 2025 10:30 (30 minutes)

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Presenter: Ms DAYDAS, Semra (IAEA)

Session Classification: Track 2: Reactor Design Features for Enhancing Proliferation Resistance

Track Classification: Track 2: Reactor Design Features for Enhancing Proliferation Resistance

Contribution ID: 25

Type: **not specified**

PROLIFERATION RESISTANCE AND PHYSICAL PROTECTION CROSSCUTTING TOPICS Application to GIF GEN IV Energy Systems and to Siting Study for AMRs and Microreactors

*Monday 18 August 2025 16:50 (30 minutes)***Speaker's title**

Mr

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French Alternative Energies and Atomic Energy Commission

Author: NGUYEN, Frédéric (CEA)**Co-authors:** CIPITI, Benjamin (Sandia National Laboratories); VAN DER ENDE, Bryan (Canadian Nuclear Laboratories); COJAZZI, Giacomo G.M. (European Commission, Joint Research Centre, Institute for Transuranium Elements); RENDA, Guido (European Commission Joint Research Centre)**Presenter:** NGUYEN, Frédéric (CEA)**Session Classification:** Track 1: Evaluation of Proliferation Resistance of Fast Reactors and Associated Fuel Cycles: Methodologies, Definitions, Assessment and Metrics**Track Classification:** Track 1: Evaluation of Proliferation Resistance of Fast Reactors and Associated Fuel Cycles: Methodologies, Definitions, Assessment and Metrics

Contribution ID: 29

Type: **not specified**

Track 2 General Discussion

Tuesday 19 August 2025 11:30 (30 minutes)

Session Classification: Track 2: Reactor Design Features for Enhancing Proliferation Resistance

Contribution ID: **30**

Type: **not specified**

Track 3 General Discussion

Tuesday 19 August 2025 16:00 (30 minutes)

Session Classification: Track 3: Proliferation Resistance Considerations for Nuclear Fuel Cycles

Contribution ID: **31**

Type: **not specified**

Track 4 General Discussion

Wednesday 20 August 2025 12:00 (1 hour)

Session Classification: Track 4: Safeguardability of Fast Reactors and Associated Fuel Cycles

Contribution ID: **32**

Type: **not specified**

Opening Remarks

Monday 18 August 2025 13:00 (10 minutes)

Presenter: CHUDAKOV, Mikhail (DDG, Head of NE Department)

Session Classification: Opening session

Contribution ID: 33

Type: **not specified**

Safeguard Considerations

Monday 18 August 2025 14:10 (20 minutes)

Presenter: TERIGI, GABRIEL E (INTERNATIONAL ATOMIC ENERGY AGENCY)

Session Classification: Opening session

Contribution ID: 34

Type: **not specified**

IAEA Activities and Events on Fast Reactor Technology

Monday 18 August 2025 13:50 (20 minutes)

Speaker's title

Speaker's email address

Country/Int. organization

Affiliation/Organization

Presenter: VIRGILI, Nicole

Session Classification: Opening session

Contribution ID: 35

Type: **not specified**

Status of Fast Neutron Reactor Technology Development

Monday 18 August 2025 13:30 (20 minutes)

Presenter: KRIVENTSEV, Vladimir (IAEA)

Session Classification: Opening session

Contribution ID: 36

Type: **not specified**

(TBC) Proliferation-Resistant Fuel Cycles

Thursday 21 August 2025 10:00 (20 minutes)

Presenter: Dr GONZALEZ-ESPARTERO, Amparo (IAEA staff)

Session Classification: General Discussion

Contribution ID: 37

Type: **not specified**

(TBC) INPRO Activities

Thursday 21 August 2025 10:20 (20 minutes)

Presenter: SCHERER, Carolynn (IAEA - INPRO)

Session Classification: General Discussion