

# GIF Education and Training series Webinar #104

## Safety-Security-Safeguards (3S) Interface case study by GIF Hosted by the GIF Education and Training Working Group

Join us on September 24, 2025, 14:30 CEST (UTC+2)

### *Safety-Security-Safeguards (3S) Interface case study by GIF*

#### Free webcast!

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#### When:

September 24 - 2025  
14:30 CEST (UTC+2)

#### Who should attend:

policymakers, industry professionals, regulators, researchers, students, general public

This webinar will present the outcomes of a collaborative case study conducted by the GIF Proliferation Resistance and Physical Protection Working Group (PRPPWG), the GIF Risk and Safety Working Group (RSWG), and the GIF Very High Temperature Reactor System Steering Committee (VHTR SSC). The study focused on a notional pebble bed Very High Temperature Reactor (VHTR) modular reactor and aimed to identify and characterize the interfaces between safety, security, and safeguards—commonly referred to as 2S and 3S interfaces—in nuclear facilities.

As Generation IV nuclear systems move closer to deployment, it becomes increasingly important to address these interfaces early in the design process. This webinar will highlight how the case study developed technology-neutral guidance for identifying and characterizing 2S and 3S interfaces, with the goal of supporting a 3S-by-design (3SBD) approach for advanced modular reactor development.

The presentation will explore how shared use of space, time, and resources across safety, security, and safeguards regimes can lead to either conflicts or synergies, particularly in compact reactor designs. These insights are especially relevant for small and advanced modular reactors, which operate under different spatial and operational constraints compared to traditional large-scale nuclear installations.

Dr. Patricia Paviet from PNNL, USA, member of GIF ETWG will facilitate this webinar and moderate the Q&A session that will be held in the second part of the webinar.

The GIF ETWG webinar series started in 2016 with over 100 webinars streamed since then. People from more than 80 countries have attended these webinars over the years. You can learn more about [previous webinars](#) and [ETWG activities](#) on the [GIF website](#).

#### Speaker

#### Dr Bryan van der Ende

Dr. Bryan van der Ende is a senior research and development scientist in the Applied Physics Branch of Canadian Nuclear Laboratories (CNL) since 2013, where he is currently section head of the Experimental Safeguards group and directorate lead for Safeguards Systems. His work focuses on detection modalities for nuclear security and safeguards applications, as well as techniques for potential use in safeguards approaches. He is also interested in broader issues of nuclear safeguards and non-proliferation, such as the interfaces of nuclear facilities between safety, security and safeguards. Bryan is an active member of the GIF PRPPWG since 2019. Prior to joining CNL, he served as an Assistant Professor in the Department of Physics at Acadia University (2010–2013), and gained postdoctoral experience at the University of Utrecht (2006–2009) and Trent University (2009–2010). He earned his PhD in Physics at the University of Guelph in 2006.

