

Overview and Update of the GIF VHTR Activities Hosted by the GIF Education and Training Working Group

Join us on February 19, 2025 - 14:30 CET (UTC+1)

Overview and Update of the GIF VHTR Activities

Free webcast!

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When:

February 19 – 2025
14:30 CET (UTC+1)

Who should attend:

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

This webinar will present an overview of recent advancements in Very High Temperature Reactor (VHTR) research, development and deployment, with a specific focus on the collaborate work performed within the GIF VHTR framework under guidance from the VHTR System Steering Committee. VHTRs utilize a ceramic TRi-structural ISOtropic (TRISO) fuel form, helium coolant, and a low power density to ensure excellent fission product retention and passive decay heat removal under all transient conditions. While the original approach for VHTRs focused on very high outlet temperatures for hydrogen production, recent research and market assessments suggest that lower outlet temperatures in the 700-900°C range are sufficient for many industrial applications, and limit material challenges associated with near-term deployment. The high outlet temperature and thermal efficiency of HTRs is ideal for hydrogen production and use in the chemical, oil, and iron industries. The presentation will highlight several new HTR test and demonstration projects under development, and identify future research needs, challenges and areas of collaboration.

Dr. Patricia Paviet from PNNL, USA, member of GIF ETWG and initiator of this webinar series, will facilitate this webinar.

The GIF ETWG webinar series started in 2016 and more than 95 webinars have been 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. Gerhard Strydom

Dr. Gerhard Strydom is the National Technical Director for the United States Department of Energy's (DOE) Advanced Reactor Technologies (ART) Gas-Cooled Reactors (GCR) campaign. He is responsible for overseeing the ART GCR program activities on graphite and high-temperature materials qualification, as well as GCR simulation method development and validation at Idaho National Laboratory (INL). He represents the US DOE on the IAEA GCR Technical Working Group (TWG) and the Generation-IV Forum (GIF) Expert Group since 2016. Until October 2024, he served for 4 years as the Chair of the GIF Very High Temperature Reactor (VHTR) System Steering Committee. He is the author of more than 80 technical publications, including 53 journal and conference papers, and received his Ph.D. on the development of a multi-phase and multi-physics uncertainty assessment methodology for prismatic GCRs in September 2020.

