Generation IV International Forum SM

EDUCATION AND TRAINING TASK FORCE

Join us on October 23, 2019
for the next GEN IV webinar

Passive Decay Heat Removal Systems

A major design goal for Generation IV nuclear energy systems is to reduce or eliminate the likelihood and/or extent of reactor core damage incurred during an off-normal operating event, thereby eliminating the need for offsite emergency response. One approach for achieving this objective is to develop inherently safe reactor designs that can passively dissipate decay heat to the environment without relying on operator action during an event of this type. Historically, this approach has been taken for both sodium- and gas-cooled Generation IV reactor types by providing Reactor Cavity Cooling Systems (RCCS) that are designed to passively dissipate decay heat to the environment by natural convection while maintain fuel temperature below the threshold for onset of core damage.

This presentation will begin by providing a high level overview of RCCS systems that have been developed for advanced reactor designs over the years. This will be followed by a summary of large scale integral effect tests that are currently underway at Argonne to provide licensing-quality data for two of these systems; i.e., air- and water-cooled RCCS concepts.

Free webcast

October 23, 2019 at 8:30 am EDT (UTC-4)

Register NOW at https://attendee.gotowebinar.com/register/5784473900916808972

Who should attend: policy makers, managers, regulators, students, general public

Volunteer Communication Event. Help us create a mosaic showing attendees from all over the world during this webinar by sending us a "selfie"which shows the presentation in the background. We will prepare a mosaic and post it to the GIF website.

Meet the Presenter...

Dr. Mitchell Farmer is currently a Senior Nuclear Engineer and Manager for Light Water Reactor programs in the Nuclear Science and Engineering Division at Argonne National Laboratory. He has over thirty years of experience in various R&D areas related to reactor development, design, and safety. A principal early career focus was in the area has been light water reactor (LWR) severe accident analysis and experiments, followed by a rekindling of this work to address technical issues raised in the wake of the reactor accidents at Fukushima Daiichi. More recently, Dr. Farmer has been heavily involved in the analysis, design, and conduct of experiments related to operations and safety of Generation IV reactor concepts including sodium fast reactors, as well as high-temperature gas cooled reactors. He has over 200 publications in the above mentioned technical areas. Dr. Farmer also served as the Technical Area Lead for the Reactor Safety Technologies Pathway (RST) within the Light Water Reactor Sustainability (LWRS) Program at the US Department of Energy (DOE).

Dr. Farmer earned his Bachelors degree in Nuclear Engineering from Purdue University in 1983, his Masters degree in Mechanical Engineering from the University of Nebraska in 1985, and his PhD in Nuclear Engineering from the University of Illinois in 1988.

The Generation IV International Forum invites you to attend web-based lectures on the next generation of nuclear energy systems and other cross-cutting subjects. Join internationally recognized subject matter experts and leading scientists in the nuclear energy arena for these short presentations.

Upcoming Webinars

13 November 2019	Czech Experimental Program on MSR Technology Development, Dr. Jan Uhlir
18 December 2019	TRISO Fuels, Dr. Madeline Feltus
29 January 2019	Thermal Hydraulics in Liquid Metal Fast Reactors, Dr. Antoine Gerschenfeld

For more information, please contact: Patricia Paviet at patricia.paviet@pnnl.gov or visit the GIF website at www.gen-4.org