DEFENSE ENERGY SEMINAR

Small Modular Reactor Development and Licensing Challenges

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With Lecturer George Griffith, Ph.D.

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Abstract:

Multiple nuclear power projects are being developed in the United States and around the world. Financial, environmental, economic, deployment and safety concerns are affecting the design and development of proposed commercial reactors. In the United States, licensing a new reactor is a challenge especially for complex and unproven new technology concepts.



George Griffith, Ph.D.

Integral pressurized water reactors (IPWR) are perceived as the most likely new technology reactors to be deployed. The IPWR reactors are intended to be efficient, low cost, extremely safe and affordable. The deployment timeline, licensing, technology and design features that make IPWR reactors desirable will be described. Other future technology commercial reactors will be described.

Biography:

George Griffith, Ph.D., is a relationship manager at Idaho National Laboratory and the lead for Technical Business Development & Marketing. He works on technical analysis and interfaces with the nuclear industry to develop new projects. He was the Thermal Science and Safety Analysis group manager, Light Water Reactor Sustainability Advanced Fuels Pathway Lead and worked on the ATR methods upgrade project, fuel cycle calculations and LEU conversion studies. His primary focus is working on nuclear projects and advanced calculations for the reactor core design and licensing.

Prior to working for INL, Dr. Griffith was a reactor engineer and reactor engineering manager at Cooper Nuclear Station. He worked with the operations team on strategic and day-to-day reactor operation, outage and refueling. Dr. Griffith has many years of experience in commercial nuclear fuels fabrication, core design, core operations and nondestructive evaluation while at Global Nuclear Fuels. He holds a Ph.D. in nuclear engineering from North Carolina State University and a B.S. in nuclear engineering from lowa State University.

