

Topical (Panel) Session

Research to Sustain the Existing Fleet of Operating Nuclear Power Plants

Organizer

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Panelists

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The LWRS Program conducts research to develop technologies and other solutions to improve economics and reliability, sustain safety, and extend the operation of the nation's fleet of nuclear power plants. In conjunction with industry and academia, the Program conducts research to provide science and technology-based solutions to enhance cost-competitive operational performance and to manage the aging of structures, systems, and components. These activities reduce key uncertainties and risks that owner-operators face regarding the long-term performance of these assets and support the extended operation of existing nuclear power plants.

This panel will provide an update on ongoing research in LWRS-program funded activities, emphasizing the development and deployment of risk-informed methods and tools. This includes addressing socio-technical aspects of plant performance, advanced modeling and simulation, artificial intelligence for use in modernizing approaches to plant oversight and operation, human reliability analysis, and options for the use of nuclear power for missions beyond electricity production.