

International Conference on Management of Spent Fuel from Nuclear Power Reactors: An Integrated Approach to the Back End of the Fuel Cycle



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Aging Management Solutions to Ensures Safety of Extended Dry Fuel Storage

Storing used fuel at reactor sites for long periods of time wasn't originally planned. But given the delays in the deployment of long term solutions such as geological repositories, license renewal beyond the initial original license of 20 years is now necessary. In the United States, there are 72,000 MTU of SNF discharged including 22,000 MTU in dry storage (about 1,900 casks/canisters for 90% in dual purpose) at 63 operating dry storage facilities. In Germany, dry storage casks are stored at consolidated storage sites and on-site as transportation of spent fuel is prohibited nowadays. With further reactor shutdowns until 31.12.2022, it is expected to have about a total of 1,500 or 1,600 dry storage casks at 16 storage sites (12 on-site). Regulators are in the process of defining periodic inspection and testing management program to monitor and maintain dry storage systems on site to ensure a high level of safety and security. In this early stage of license renewals, aging management program includes mainly periodic inspections of the used fuel dry storage systems and components to ensure potential aging effects are identified and effectively managed. As our industry learn through R&D studies and demonstration and surveillance programs, aging management programs will be evolving with advanced inspection technologies and industry operating experience as they become available in the future. This presentation will present innovative solutions being developed to monitor age-related degradation and prevent equipment failures caused by aging.

Country/ int. organization

FRANCE

Primary author: Mrs SHELTON, Catherine (AREVA TN)

Co-authors: Mr GARCIA, Justo (AREVA TN); Mr NARAYANAN, Prakash (AREVA TN)

Presenter: Mrs SHELTON, Catherine (AREVA TN)