

Description:

Nuclear power is a major contributor to clean energy supply in the United States. With nuclear plants beginning to be operated beyond 40 years, the Nuclear Regulatory Commission (NRC) and the Nuclear Energy Institute (NEI) have endorsed that utilities proceed with initiatives for Subsequent License Renewal (SLR), 80-year operation. On November 6, 2015, Dominion became the first utility to announce that it would be seeking a second license extension for the Surry Power Station.

The focus of SLR will be on the unique aspects of material aging and degradation applicable to nuclear plant operation beyond 60 years. The NRC is currently issuing NUREG-2191, "Generic Aging Lessons Learned for Subsequent License Renewal Report" and NUREG-2192, "Standard Review Plan for Subsequent License Renewal Applications for Nuclear Power Plants" to address these aspects. The most significant technical issues identified as challenges to operation beyond 60 years are:

- Reactor pressure vessel embrittlement
- Irradiation-assisted stress corrosion cracking (SCC) of reactor internals
- Concrete structures and containment degradation
- Electrical cable environmental qualification (EQ)
- Condition monitoring and assessment

We have a seasoned staff with a wealth of knowledge based on diverse experience with initial License Renewals. Sargent & Lundy is active in the NEI Working Groups and NEI License Renewal Task Force and contributes to the industry's reviews of the revised NUREGs.

Sargent & Lundy has the full-service capabilities to support our clients with engineering evaluations of the technical issues identified by the industry, completion of the SLR application, development and implementation of inspection programs and plant modifications to support 80-year operation. We look forward to supporting our clients as they proceed with SLR initiatives.

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