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## Aging Management for Dry Storage Canisters

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Aging management is applied to dry storage systems used to store used nuclear fuel to ensure that material degradation does not affect the function and safety of these systems as they remain in service beyond the initial licensing period. Chloride-Induced Stress Corrosion Cracking (CISCC) is a potential degradation mechanism for welded stainless steel canisters that serve structural and confinement functions in some dry storage system designs. EPRI has developed aging management guidelines to address the potential for CISCC in these canisters. The guidelines include recommendations for screening and inspection methods and frequency with a technical basis built on literature survey results, qualitative failure modes and effects analyses, deterministic flaw growth and tolerance calculations, susceptibility assessments, and probabilistic canister confinement integrity assessments. EPRI's work is being referenced by the American Society of Mechanical Engineers (ASME) Boiler Pressure Vessel (BPV) Section XI Task Group on In-service Inspection of Spent Fuel Storage and Transportation Containments which was formed in April of 2015.

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### Country or International Organization

United States of America

**Primary author:** Mrs CHU, Shannon (EPRI)

**Co-authors:** Dr RENSHAW, Jeremy (EPRI); AKKURT, Hatice (Electric Power Research Institute); Dr CSONTOS, Aladar (EPRI)

**Presenter:** Dr RENSHAW, Jeremy (EPRI)

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