

Extending Reactor Licenses to an Extreme

TOPIC #4

Technical Issues for Electrical Cables

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PAUL GUNTER

REACTOR OVERSIGHT PROJECT

BEYOND NUCLEAR



**License extension age management programs for
non-metallic systems and structures
(electric cable and concrete)**

Beyond Nuclear maintains that projecting age management programs for safety-critical systems and structures out to 100-year begins with observing and assessing the foundation for assuring safety margins during the initial (40-60 years) and subsequent license renewal (60-80 years) periods.

PNNL-27120



Criteria and Planning Guidance for Ex-Plant Harvesting to Support Subsequent License Renewal

December 2017

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Prepared for the U.S. Nuclear Regulatory Commission
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CONTRACT DE-AC16-75RL01830

U.S. DEPARTMENT OF
ENERGY

Non-metallic concrete and electric cable

“These long-lived components, broadly divided into concrete and electrical cables, are generally difficult (if not impossible) to replace and would require a significant investment if across-the-board replacement is considered. As a result, recent assessments such as the EMDA have included a significant emphasis on identifying knowledge gaps related to these long-lived non-metallic components (Bernstein et al. 2014; Graves et al. 2014).”

Non-metallic concrete and electric cable

PNNL-27120 Rev. 1 deletes finding that, “concrete and electrical cables, are generally difficult (if not impossible) to replace...”

PNNL-27120 Rev. 1 deletes finding that, “assessments such as the EMDA have included a significant emphasis on identifying knowledge gaps related to these long-lived non-metallic components.”

PNNL-27120 Rev.1, Table 1, does however maintain that strategic harvesting priority of electric cable is “High” that “Needs input from utilities”

PNNL-27120 Rev. 1



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