

Update on License Renewal for 40 Years and Research on 100 Years

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Background

- License renewal is limited to 20 years by 10 CFR 54.31(b)
- Renewed licenses issued for 93 units (9 have ceased operations)
 - 8 units with 40-year licenses (Diablo Canyon will shutdown 2024/2025)
 - 79 units with 60-year licenses
 - 6 units with 80-year licenses (Turkey Point, Peach Bottom and Surry)
- Perry plant considering coordinated applications for license renewal from 40-60 years and 60-80 years
- Staff working group looked at legal/regulatory aspects, environmental review, safety review, and inspection/oversight aspects
 - Large number of plants with 60-year licenses put aging management issues for 100 years of plant operation on the table

Public Meetings

- January 21 – Technical issues for 100 years of operation
 - 184+ participants
 - NEI perspective: not aware of any utility actively discussing pursuit of license renewal to enable 100 years of operation or intends to in the near future. Prudent to continue relevant research on aging to extend our current level of knowledge, given the lead time needed to implement and complete research activities.
 - Overall public comments were not supportive – concerns over reactor pressure vessel (RPV) surveillance specimens; the age of foundations for plants with extended construction times; parts of the plant that cannot be inspected
- February 18 – License Renewal for 40 Years
 - 140+ participants
 - NEI perspective: no plants considering the combination of an SLR application with a license to 100 years and NEI neither supports nor opposes this activity.
 - Overall public comments were not supportive – concerns over accuracy of RPV embrittlement predictions; inadequate local outreach for environmental meetings; should improve inspections now; further limits public engagement available every 20 years now; complaints regarding lack of access by public affected by storms

Status

- Closure memorandum issued June 22, 2021 (ADAMS Accession No. ML21117A007)
 - Discontinue the activity to consider regulatory and other changes to enable license renewal for 40 years.
 - Consider possible changes to oversight and inspection activities.
 - Identify on-going research activities that could be extended to greater exposure levels (e.g., higher fluence levels) to address 100 years.
 - Describes continued efforts to harvest materials and components from decommissioned plants to provide insights and data on materials aging at high exposure levels.
 - Periodically query the industry on interest and timing to pursue operation to 100 years – to identify the need and timeframe to initiate development of guidance documents.
 - Consider an evaluation of impacts to plant risk from the combined effects of multiple aged components, and affirmation of the conclusions in NUREG-1412* should license renewal to 100 years of plant operation be contemplated in the future.

- * "Foundation for the Adequacy of the Licensing Bases, A Supplement to the Statement of Considerations for the Rule on Nuclear Power Plant License Renewal (10 CFR Part 54)," December 1991 (ADAMS Accession No. ML080310668)