AREVA US Experience
From License Renewal to Beyond 60

Proactive aging management for 60 years and beyond thanks to AREVA’s unique experience in license renewal, from application to implementation and support

Unique Experience in License Renewal
AREVA’s License Renewal (LR) services have helped US utilities extend the safe operating life of their PWR and BWR nuclear power plants by 20 years, while ensuring continued return on investment to their shareholders.

• Active Involvement in all key industry working groups: NEI, NRC, EPRI
• LR guidance including:
  – Mechanical Tools – Rev. 4 (EPRI 1010639)
  – Electrical Tools – Rev. 1 (EPRI 1013475)
  – Structural Tools – Rev. 2 (EPRI 1015078)
• Comprehensive procedures and guidelines:
  – NSSS Generic License Renewal Program
  – Four generic NRC-approved Aging Management Reviews: RCS Piping, Pressurizer, Reactor Vessel, Reactor Vessel Internal
• Unique regulatory environment experience: reconstitution and/or revision of Design Bases (DB) documents to meet Current Licensing Bases (CLB) of operating plants
• Experience with all technologies (PWRs, BWRs) and manufacturers

Post-Application
Aging Management Assessment & Activities
Following a successful license renewal the focus shifts to implementing LR commitments, performing the inspections and meeting the commitments:

• Evaluate degradation scenarios
• Perform NUREG 1801, “GALL” comparisons for existing and/or newly-identified degradations
• Identify required inspections
• Identify monitoring programs
• Prepare implementing procedures
• Perform inspections and assess results
• Implement recommendations including preventive maintenance optimization, new inspections, and related procedure changes

Related Service-Integrated Plant Assessments
• Aging Management Review
• Aging Management Program Development and Enhancement
• Fatigue Monitoring, Fire Protection, High Voltage Porcelain Insulators, Concrete Inspections, Reactor Vessel Inspections

Beyond 60
The AREVA roadmap for safe operation beyond 60 aims at preparing solutions for the safe long-term operation of US nuclear power plants beyond 60 years of operation. It addresses specific technical challenges such as:

• Cable aging technology development
• Concrete inspection and NDE development
• Monitoring technology development
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AREVA References in the US:

A dedicated License Renewal team has been involved in over 50% of License Renewal efforts in the US since the mid 1990s:

- DC Cook Units 1 & 2
- Calvert Cliffs Units 1 & 2
- H.B. Robinson Unit 2
- Ginna Unit 1
- Oconee Units 1, 2 & 3
- McGuire Units 1 & 2
- Catawba Units 1 & 2
- Three Mile Island
- Turkey Point Units 1, 2 & 3
- Beaver Valley Units 1 & 2
- Davis Bessie Unit 1
- Monticello Unit 1
- Cooper Unit 1
- Browns Ferry Units 1, 2 & 3
- Arkansas Nuclear One Unit 1
- Indian Point Units 2 & 3
- Columbia
- Susquehanna Units 1 & 2
- Crystal River 3
- V.C. Summer Unit 1

Other US LR Applications reviewed by AREVA:
Palo Verde, North Anna, Surry, Kewaunee, Point Beach, Prairie Island, D. Arnold, Harris, Brunswick, Hatch

Our License Renewal team was also involved in international LR efforts in Angra (Brazil) and Krsko (Slovenia).

Overview of the US situation regarding License Renewal

Your benefits at a glance

AREVA’s unparalleled experience in over 50% of US license renewals allows for:

- Proven License Renewal process experience that reduces overall project risks
- Lower total project costs and faster project execution for License Renewal
- Proven lessons learned from previous License Renewal projects
- Optimized utilization of client staff