06 / 27 / 01 MEETING

TITLE: DOMINION LICENSE RENEWAL APPLICATION PRESENTATION

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06 / 27 / 01 MEETING

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06 / 27 / 01 MEETING

TITLE: DOMINION LICENSE RENEWAL APPLICATION PRESENTATION

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Presentation of Dominion License Renewal Applications

NRC – Dominon Meeting 6-27-01

0900 - 0930
Introductions / Purpose of Meeting / Meeting Expectations / LRA Format

0930 - 1000
Scoping / Screening Methodology and Results – Section 2

1000 - 1030
AMR Methodology – App. C

1030 – 1130
AMR Results – Mechanical Systems and Components

1130 – 1200
AMR Results – Structures and Structural Commodities

1200 – 1300 LUNCH

1300 – 1330
AMR Results – Electrical Commodities

1330 - 1400
TLAAs

1400 - 1500
Aging Management Activitites

1500 - 1515
Closing Remarks

HANDOUT

Dominion℠

Surry Power Station

License Renewal Application

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Dominion℠

License Renewal Applications

Mike Henig

June 27, 2001

Participants

- Dominion
  - Bill Corbin - Director, Nuclear Projects
  - Lucky Wroniewicz - LR Project Manager
  - Mike Henig - LRA Supervisor (Presenter)
  - Paul Aitken - IPA Supervisor

Participants

- Dominion
  - Project Technical Personnel

    Ben Rodill - LRA

    Tom Snow - Programs

    Charlie Sorrell - Civil

    Preston Dougherty - Electrical

    Marc Hotchkiss - LRA

    H.V. Le - Scoping/Screening

    Nitin Shah - TLAA

Purpose of Meeting

- Provide NRC staff with a review of the license renewal applications for North Anna and Surry Power Stations
- Clarify the organization of the license renewal applications

Agenda

0900 - 0930	**Introductions / Purpose of Meeting / LRA Format**
0930 - 1000	**Scoping / Screening Methodology and Results – Section 2**
1000 - 1030	**AMR Methodology – App. C**
1030 – 1130	**AMR Results – Mechanical Systems and Components**
1130 – 1200	**AMR Results – Structures and Structural Commodities**
1200 – 1230	**AMR Results – Electrical and I&C**
1230 – 1330	***LUNCH***
1330 - 1400	**TLAAs**
1400 - 1500	**Aging Management Activities**
1500 - 1515	**Closing Remarks**

LRA Format

- Consistent with SRP and NEI 95-10
- Sections discussed today
  - Section 2: Scoping and screening methodology and results
  - Section 3: AMR results - Mechanical, Structural, Electrical
  - Section 4: TLAA methodology and results
  - Appendix B: Aging management activities
  - Appendix C: Aging management review methodology*

* Reviewers Aid - not required by SRP or NEI 95-10

LRA Format (cont.)

- Plant-specific information identified with borders (Table 1.1-1, Conventions)
  - Surry - red borders
  - North Anna - blue borders
- Black text is common to both sites to facilitate efficient review.

Scoping Methodology

- Used Part 54.4 Rule Scoping "Criteria"
  - Criterion 1: safety-related
  - Criterion 2: non-safety-related affecting safety-related
  - Criterion 3: the five regulated events (FP, EQ, PTS, ATWS, SBO)

Scoping Methodology (cont.)

- Documentation Sources
  - Equipment Data System (EDS) - including safety classifications
  - Maintenance Rule Scoping and Civil Engineering Structural Monitoring Program
  - UFSAR, Technical Specifications, Design Basis Documents
  - In-house Scoping Criteria Reports
  - Plant Drawings and Design Documentation

Scoping Results

- Plant level Systems in scope: Table 2.2-1
- Plant level Systems not in scope: Table 2.2-2
- Plant level Structures in scope: Table 2.2-3
- Plant level Structures not in scope: Table 2.2-4

Screening Methodology

- Mechanical System Screening Overview
  - Reviewed documentation sources to identify intended functions.
  - Used EDS database in conjunction with other documentation sources to identify components supporting these functions.
  - Developed license renewal drawings.

Once this was complete, the passive components within the scope of LR requiring an aging management review had been identified.

Screening Methodology (cont.)

- Civil/Structural Screening Overview
  - Reviewed documentation sources to identify intended functions.
  - Used structural detail drawings to identify structural members supporting these functions.

Once this was complete, the passive structural members within the scope of LR requiring an aging management review had been identified.

Screening Methodology (cont.)

- Electrical/I&C Screening Overview
  - Passive electrical/I&C components screened on a plant-level basis as commodities
  - Electrical/I&C commodities:
    - Cables and Connectors
    - Electrical Penetrations
    - Bus Ducts

Screening Results

- Mechanical Systems Screening: Section 2.3
- Structures Screening: Section 2.4
- Electrical/I&C Screening: Section 2.5

Screening Results (cont.)

- Each Screening Results Section
  - Description
  - UFSAR Reference - hyperlink
  - License Renewal Drawings* - hyperlink
  - Components Subject to AMR - hyperlink to table

* mechanical systems only

Screening Results (cont.)

- Screening Results sample sub-sections
  - Sc. 2.3.1.1 - Reactor Coolant System
  - Sc. 2.3.2.5 - Safety Injection System
  - Sc. 2.4.1 - Containment
  - Sc. 2.5.2 - Cables and Connectors

BREAK

10 Minutes

Aging Management Review Methodology - Appendix C

- Not required - Reviewers Aid
  - ◇ Grouping of systems, structures, and major components - consistent with SRP and NEI 95-10
  - ◇ Short-lived components and consumables
  - ◇ Aging effects and mechanisms evaluated

Aging Management Review Methodology - Appendix C (cont.)

Westinghouse Generic Topical Reports

WCAP-14575-A - Class I Piping
WCAP-14577, Rev. 1-A - RV Internals
WCAP-14574-A - Pressurizer
WCAP-14422, Rev. 2-A - RCS Supports

- Confirmation of Topical Report Applicability
- Response to Applicant Action Items

Aging Management Review Methodology - Appendix C (cont.)

- Each AMR Results Section
  - Hyperlink to Section 2 description
  - Hyperlink to summary table of AMR results
  - Confirmation of Topical Report Applicability (as req'd.)
  - Materials
  - Environment - hyperlink to Internal/External Service Environments Tables (Table 3.0-1 and Table 3.0-2)
  - Aging Effects Requiring Management
  - Time-Limited Aging Analysis (if applicable)
  - Conclusion (Summary of AMAs credited)

AMR Results - Mechanical Systems and Components

- Sc. 3.1.1 - Reactor Coolant System
  - System description reference, AMR results tables
  - GTR applicability, applicant action item response table
  - Materials, environment descriptions, aging effects, TLAA, aging management activities

AMR Results - Mechanical Systems and Components (cont.)

- Sc. 3.1.5 - Steam Generator
  - Component description reference, AMR results tables
  - Materials, environment descriptions, aging effects, TLAA, aging management activities
- Sc. 3.2 - Engineered Safety Features Systems
  - System description reference, AMR results tables
  - Materials, environment descriptions, aging effects, TLAAs, aging management activities

AMR Results - Structures and Structural Commodities

- Sc. 3.5.1 - Containment
  - Structure description reference, AMR results tables
  - Materials, environment descriptions, aging effects, aging management activities
- Sc. 3.5.11 - Misc. Structural Commodities
  - Commodity description reference, AMR results tables
  - Materials, environment descriptions, aging effects, aging management activities

AMR Results - Electrical and I&C

- Sc. 3.6.2 - Cables and Connectors
  - Commodity description reference, AMR results tables
  - Materials, environment descriptions, aging effects, aging management activities

LUNCH 1230 - 1330

Time-Limited Aging Analyses Methodology

- Consistent with 10 CFR 54 and NEI 95-10
- Key word search of Calculations, Reports, Licensing Correspondence, UFSAR, and WCAPs.

Time-Limited Aging Analyses Results

- Layout consistent with SRP format
- Summarized in Table 4.1-1
  - (i) the analyses remains valid for period of extended operation.
  - (ii) the analyses have been projected to the end of the period of extended operation.
  - (iii) the effects of aging will be adequately managed for the period of extended operation.

Time-Limited Aging Analyses Results (cont.)

- Reactor vessel neutron embrittlement
- Metal Fatigue
- Environmental Qualification (EQ)
- Containment tendon prestresses (not applicable)
- Containment liner plate and penetration fatigue
- Plant-specific TLAAs

Time-Limited Aging Analyses Results (cont.)

- Plant-specific TLAAs
  - Crane load cycle limit
  - RCP flywheel
  - Leak-before-break
  - Spent fuel pool liner
  - Piping subsurface indications
  - RCP - Code Case N-481

BREAK

10 Minutes

Aging Management Activities

- Introduction
  - Operating Experience
  - Management of Aging Effects
  - Designation of Plant Areas

Aging Management Activities (cont.)

- Operating Experience
  - Industry and in-house operating experience has been incorporated into aging management activities through the corrective action process

Aging Management Activities (cont.)

- Management of Aging Effects
  - ◇ Predominately utilize existing inspection techniques and surveillance activities.
    - VT-1, VT-2, VT-3
    - Volumetric examinations
    - heat exchanger performance testing
    - reactor vessel capsule surveillance

Aging Management Activities (cont.)

- Designation of Plant Areas
  - Normally accessed areas
  - Infrequently accessed areas
  - Inaccessible areas

Aging Management Activities (cont.)

- Quality Assurance Program elements of corrective action, confirmation process, and administrative controls are applicable to the safety-related and non-safety-related structures, systems, and components within the scope of license renewal.

Aging Management Activities (cont.)

- AMA format:
  - Aging effects that are managed
  - List of applicable systems, structures and components
  - Activity evaluation in terms of SRP 10 elements

Aging Management Activities (cont.)

- New Activities - 3
  - Buried Pipe and Valve Inspections
  - Infrequently Accessed Areas Inspections
  - Tank Inspections

Aging Management Activities (cont.)

- Existing Activities - 19
  - Chemistry Control - Primary, Secondary, Fuel Oil
  - Inspections - ISI (components/supports, RPV, RVI, Containment), Augmented, SG, Civil Structures, Battery Racks, Cranes, Secondary Components, Service Water System
  - Boric Acid Corrosion Surveillance
  - Fire Protection Program

Aging Management Activities (cont.)

- Existing Activities - 19 (cont.)
  - General Condition Monitoring
  - Reactor Vessel Integrity Management
  - Work Control Process

Aging Management Activities (cont.)

- TLAA Support Activities
  - Environmental Qualification Program
  - Transient Cycle Counting Program

Aging Management Activities (cont.)

- Licensee Follow-up Actions
  - ◇ listing of actions required in order to effectively manage the aging effects identified through the aging management review
  - ◇ includes commitments for program/activity changes and future inspections
  - ◇ most intended to be completed before end of current OL

Closing Remarks