



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D.C. 20555-0001

October 9, 2001

MEMORANDUM TO: ACRS Members
Noel Dudley
FROM: Noel Dudley, Senior Staff Engineer
 ACRS
SUBJECT: CERTIFICATION OF THE SUMMARY/MINUTES OF THE ACRS
 SUBCOMMITTEE MEETING ON THE SAFETY EVALUATION
 REPORT RELATED TO THE LICENSE RENEWAL APPLICATION
 FOR TURKEY POINT, UNITS 3 AND 4, SEPTEMBER 25, 2001
 ROCKVILLE, MARYLAND

The minutes of the subject meeting, issued on October 2, 2001, have been certified as the official record of the proceedings of that meeting. A copy of the certified minutes is attached.

Attachment: As stated

cc via e-mail:

J. Larkins
S. Bahadur
ACRS Fellows and Technical Staff

cc: ACRS Secretary
 E. Barnard (3 copies)



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D.C. 20555-0001

MEMORANDUM TO: Noel Dudley, Senior Staff Engineer
ACRS

FROM: Dr. Mario Bonaca, Chairman
Plant License Renewal Subcommittee

SUBJECT: CERTIFICATION OF THE MINUTES OF THE ACRS SUBCOMMITTEE
MEETING ON THE SAFETY EVALUATION REPORT RELATED TO
THE LICENSE RENEWAL APPLICATION FOR TURKEY POINT, UNITS
3 AND 4, SEPTEMBER 25, 2001 - ROCKVILLE, MARYLAND

I hereby certify that, to the best of my knowledge and belief, the minutes of the subject meeting issued on October 2, 2001, are an accurate record of the proceedings for the meeting.

Mario Bonaca

Dr. Mario Bonaca, Chairman
Plant License Renewal Subcommittee

10/4/01

Date



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D.C. 20555-0001
October 2, 2001

MEMORANDUM TO: Dr. Mario Bonaca, Chairman
Plant License Renewal Subcommittee

FROM: *Noel Dudley*
Noel Dudley, Senior Staff Engineer
ACRS

SUBJECT: WORKING COPY OF THE MINUTES OF THE ACRS SUBCOMMITTEE
MEETING ON THE SAFETY EVALUATION REPORT RELATED TO
THE LICENSE RENEWAL APPLICATION FOR TURKEY POINT, UNITS
3 AND 4, SEPTEMBER 25, 2001 - ROCKVILLE, MARYLAND

A working copy of the minutes for the subject meeting is attached for your review. I would appreciate your review and comment as soon as possible. Copies are being sent to the Plant License Renewal Subcommittee members for information and/or review.

Attachment: As stated

cc: G. Leitch
P. Ford
S. Rosen
W. Shack

cc via e-mail:
J. Larkins
S. Bahadur

CERTIFIED

Issued: 10/2/01
Certified: 10/4/01

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
MINUTES OF ACRS SUBCOMMITTEE MEETING ON
PLANT LICENSE RENEWAL
TURKEY POINT UNITS 3 AND 4
SEPTEMBER 25, 2001
ROCKVILLE, MARYLAND

The ACRS Subcommittee on Plant License Renewal held a meeting on September 25, 2001, at 11545 Rockville Pike, Rockville, Maryland, in Room T-2B3. The purpose of the meeting was to hold discussions with representatives of the NRC staff and Florida Power and Light, Company, (FPL) concerning the open and confirmatory items identified in the safety evaluation report (SER) related to the license renewal of Turkey Point, Units 3 and 4, and associated Westinghouse topical reports. Mr. Noel Dudley was the cognizant ACRS staff engineer for this meeting. The meeting was convened at 8:30 a.m. on September 25, 2001, and adjourned at 4:20 p.m. on the same day.

ATTENDEES:

ACRS

M. Bonaca, Chairman
P. Ford, Member
S. Rosen, Member

W. Shack, Member
N. Dudley, ACRS Staff

NRC STAFF

R. Auluck, NRR
S. Hoffman, NRR
B. Elliot, NRR
J. Davis, NRR
C. Munson, NRR
A. Keim, NRR

M. Khanna, NRR
G. Galletti, NRR
M. Khanna, NRR
B. Thomas, NRR
P. Shemanski, NRR
A. Lee, NRR

ENTERGY OPERATIONS, INC.

E. Thompson, FPL
S. Hale, FPL

There were no written comments or requests for time to make oral statements received from members of the public. Approximately 10 members of the public attended the meeting. A list of meeting attendees is available in the ACRS office files.

ACRS SUBCOMMITTEE CHAIRMAN'S INTRODUCTION

Dr. Mario Bonaca, Chairman of the Plant License Renewal Subcommittee, convened the meeting and stated that the purpose of the meeting was to discuss the staff's SER, with open items, related to the license renewal Turkey Point Plant, Units 3 and 4, and the associated Westinghouse topical reports. Dr. Bonaca noted that during the presentation, he would raise issues provided by Mr. John Barton, an ACRS consultant. He called upon Ms. Elizabeth Thompson, FPL, to begin.

FPL PRESENTATION Ms. Elizabeth Thompson and Mr. Stephen Hale, FPL

Ms. Thompson, presented background information concerning the preparation of the license renewal application for Turkey Point Units 3 and 4. Mr. Stephen Hale, FPL, presented the purpose and criteria of the scoping and screening processes. He explained the scoping process for safety-related structures and components and for non-safety related structures and components that could affect safety-related equipment. Mr. Hale described the screening process for mechanical systems, structures, and electrical and instrumentation and control systems.

Mr. Hale presented the purpose of the aging management reviews. He explained how the aging effects, which require aging management programs, were established based on technical resources, operating experience reviews, and peer reviews. He summarized the requirements for common aging management programs. Mr. Hale described the time limited aging analyses (TLAA) process and listed the seven TLAAs for Turkey Point. He concluded that:

- The aging management programs at Turkey Point will adequately manage aging effects so that the intended functions of in-scope systems, structures, and components (SSCs) will be maintained consistent with the current licensing basis for the period of extended operations.
- All TLAAs for Turkey Point were identified, evaluated, and shown to be acceptable for the extended period of operation.

Dr. Shack asked why the staff had to issue a request for additional information concerning the fatigue of the pressurizer surge line given that the same issue had been adequately addressed during the staff review of the license renewal application for Arkansas nuclear One, Unit 1. Mr. Hale explained that Turkey Point is the first plant to apply for license renewal that was constructed in accordance with B-31.1 design criteria and, as such, new questions were identified regarding the design of the pressurizer. In addition, the safety evaluation of the Westinghouse topical report WCAP-14574-A, "License Renewal Evaluation: Aging Management Evaluation for Pressurizers," identified new areas of concerns that the applicant addressed.

Dr. Bonaca questioned how the application would have been modified if the generic guidance documents had been available. Mr. Hale explained that referencing the Generic Aging Lessons Learned (GALL) report would have been beneficial.

Mr. Rosen asked why it was necessary to consider non-safety SSCs in the scoping and screening process. Mr. Hale stated that since Turkey Point was one of the early plants which was licensed, not all systems now considered to be safety-related were identified as safety-related.

In response to a question prepared by Mr. Barton, Mr. Hale explained why the following SSCs were not included in scope:

- Hot containment penetrations lines are outside plant structures and will not exceed 150°F if a line break occurs.

- The consequences of a release from the ventilation system of the Radiological Waste Building is less than 10 CFR Part 100 limits.
- The screen wash system is not necessary to maintain suction during a severe accident, since the circulating water pumps are secured.
- The C-bus only provides power to non-safety loads.
- The off-site transformers are not necessary during severe accidents since the safety-related diesel generators provide power.

Mr. Bonaca questioned why the spent fuel pool cooling system was within scope for Turkey Point when all previous applicants considered spent fuel pool cooling systems to be outside the scope of license renewal. Mr. Stephen Hoffman explained that scoping of SSCs was dependent of the current design basis for each plant.

The Subcommittee members and FPL representatives discussed the aging management program for the fatigue of thin wall stainless steel piping located in trenches outside the turbine building. Mr. Hale explained that the aging management program for these pipes was derived from operational experience of similar pipes at St. Lucie.

Dr. Ford questioned how licensees predict the failure of component, such as baffle bolts, and how they calculated the risk associated with these failures. Mr. Hale explained that the industry uses operating experience and the results of inservice inspections and inservice tests to move toward risk-informed inspection programs. He noted that aging management programs rely on defense-in-depth designs, operating experience, redundancy, and early defect detection to control risk.

Dr. Bonaca asked why ASME Class II pipes were not within the scope of license renewal when they were physically located over Class I pipes. Mr. Hale explained that failures of ASME Class II pipes were not part of the current design accident analyses and that non-safety related systems which affect safety related components are already considered within scope (i.e. piping supports).

NRC SAFETY EVALUATION REPORT (SER) PRESENTATION

Introduction: Mr. Rajender Auluck, NRR

Mr. Rajender Auluck outlined the staff's presentation and introduced the presenters. He provided an overview of the license review schedule and the SER format. Mr. Auluck summarized the open items and the staff's inspection activities. During discussions with the Subcommittee members, Mr. Auluck provided the following information.

- In response to the emerging issue of reactor vessel head penetration cracking, the applicant committed to adopt future industry recommendations.
- Emerging issues, which are identified after the operating license is renewed, will be

- handled by using the existing site-specific corrective action program.
- Babcock and Wilcox manufactured the Turkey Point reactor vessel to Westinghouse specifications.
- The Turkey Point fatigue monitoring program verifies commutative usage factors are not exceeded.
- The Turkey Point license renewal application contained most of the required information, however, the staff needed assistance in located specific information.

Chap. 2.0 - Structures and Components Subject to an Aging Management Review:
Messrs. Greg Galletti and Brian Thomas, NRR

The staff described its methodology for reviewing the applicant's scoping and screening process, its on-site audits, and its findings and conclusions.

Mr. Rosen questioned the use of the emergency operating procedures (EOPs) in the scoping and screening processes. Mr. Galletti explained that the results of the processes were compared to the maintenance program results, which were derived in part, by using the EOPs.

Mr. Rosen noted that the staff did not evaluate the qualification and training of licensee personnel on the commitments made in the license renewal application. Ms. Thompson, FPL, stated that the new information in the application was automatically included in the training programs for licensee engineers.

Chap. 3.1 - Common Aging Management Programs: Ms. Meena Khanna, NRR

Ms. Meena Khanna, NRR, identified the common aging management programs the staff reviewed.

Chap. 3.2 - Reactor Coolant System: Ms. Meena Khanna, NRR

Ms. Khanna identified the systems reviewed by the staff. She noted that the applicant did not reference the Westinghouse topical reports in the application, but did compare the topical report results to the commitments in the application. She stated that the reactor vessel head penetration nozzle cracking will be managed by the reactor vessel head alloy 600 penetration inspection program.

Dr. Bonaca questioned whether all Westinghouse topical report action items were addressed in the application. Mr. Hale, FPL, explained that the action items not addressed in the application were addressed in subsequent responses to staff Requests for Additional Information.

Dr. Ford asked if the reactor vessel internals aging management program had been reviewed against the ASME code. Mr. Allen Hiser, Jr., NRR, explained that the inspection programs were still being developed and that the staff was monitoring the industry's progress.

Dr. Ford asked when data would become available to better predict component failures. The staff explained that inspections were ongoing at established intervals and that if research

results indicated problems, then the inspection intervals would be shortened. Dr. Ford stated that not enough data presently exists and that 10 year is too long to wait. He suggested that calculated changes in the loss of coolant accident frequency should be used to determine the priority of research needs.

In response to questions from Dr. Bonaca the staff and Mr. Hale explained that:

- the containment radiation monitors were within the scope of license renewal, however, no aging effects had been identified and no aging management programs were necessary; and
- the main steam insulation valve air accumulators are within scope and have an aging management program, however, the backup instrument air bottles, which are routinely replaced, are not within scope and do not have an aging management program.

Chap. 3.3 - Engineered Safety Features: Ms. Meena Khanna, NRR

Ms. Khanna identified the systems reviewed by the staff. She noted that the applicant adequately identified the aging effects and applicable aging management programs for each component of the engineered safety features system.

Chap. 3.4 - Auxiliary Systems: Mr. James Davis, NRR

Mr. James Davis, NRR, identified the systems reviewed by the staff. The Subcommittee members and the staff discussed inspections requirements for inaccessible areas and operating experience at other plants. The staff agreed to provide the Subcommittee an explanation for why the intake structure does not have an aging management program.

Chap. 3.5 - Steam and Power Conversion Systems: Mr. James Davis, NRR

Mr. Davis identified the systems reviewed by the staff.

Chap. 3.6 - Structures and Components: Mr. Clifford Munson, NRR

Mr. Clifford Munson, NRR, identified the structural components and commodities reviewed by the staff.

Chap. 3.7 - Electrical Components: Mr. Paul Shemanski, NRR

Mr. Paul Shemanski, NRR, identified the electrical component types subject to aging management review. He noted that no aging management program was required for non-environmentally qualified (EQ) medium voltage cables subject to moisture, since the cables were designed with a lead sheath to prevent failure from water treeing due to moisture ingress. He stated that on the basis of the staff's review, the applicant developed a new aging management program for non-EQ cables, connections, and electrical penetrations. The Subcommittee and Mr. Shemanski discussed the operating experience and testing of the lead sheath cables.

Chap. 3.8 - New Aging Management Programs: Ms. Andrea Keim, NRR

Ms. Andrea Keim, NRR, identified the aging management programs that were developed to support the license renewal application. Dr. Shack questioned the meaningfulness of the one-time inspection of small bore piping. Mr. Barry Elliot, NRR, explained that cracking in small bore piping has not been a problem and that the one-time inspection is intended to confirm the absence of cracking.

Dr. Shack stated that the applicant's proposal to use a VT-1 visual inspection of baffle bolts was insufficient, in and of itself, but would be acceptable if performed in conjunction with an ultrasonic test. He stated that one-time inspections of reactor vessel internals using a VT-1 visual inspection as implied by the SER, is not sufficient. The staff agreed to review and modify the SER to clarify this issue.

Field erected tanks internal inspection: Mr. Clifford Munson, NRR, explained the open item concerning one-time inspection of condensate storage tanks, demineralized water storage tanks, and the refueling water storage tank.

Galvanic corrosion susceptibility inspection program: Mr. James Davis, NRR, identified the specific component and commodity groups for which credit was taken for this aging management program. He described the use of baseline examinations and one-time inspections.

Chap. 3.9 - Existing Aging Management Review: Ms. Andrea Keim, NRR

Ms. Keim identified the existing aging management programs reviewed by the staff. Dr. Ford stated that the staff should take a leadership role in resolving emerging aging degradation issues. Mr. Elliot explained that licensees are responsible for identifying emergent issues and determining appropriate resolution, where as the staff is responsible for confirming the adequacy of the proposed resolutions.

Chap. 4.0 - Time-Limited Aging Analyses: Messrs. Barry Elliot and Paul Shemanski, NRR

Mr. Barry Elliot, NRR, identified the time-limited aging analyses (TLAAs) reviewed by the staff.

Reactor vessel irradiation embrittlement: Mr. Elliot noted that the applicant must apply the chemistry factor ratio adjustment to the surveillance data when submitting the 48 EFPY pressure-temperature curves for staff approval. He observed that the circumferential weld between the nozzle belt and the intermediate shell approaches RT_{PTS} screening criterion at end of life and should be tracked and considered by the licensee in future submittals.

The Subcommittee and the staff discussed the appropriateness of allowing licensees to continue operating reactor pressure vessels that are within a few degrees of the pressurized thermal shock screening criterion. The staff explained that the screening criterion is very conservative and that if the criterion is exceeded licensees are required to perform plant-specific evaluations.

Metal fatigue: Mr. Elliot identified an open item that requires the staff to complete a review of the Westinghouse topical report regarding the evaluation of underclad cracking.

Environmental review process: Mr. Shemanski noted the staff disagreed with the applicant as to which requirement in 10 CFR 54.21, "Contents of application - Technical information," is being met, but accepts the application on the basis of the technical adequacy of the equipment qualification. The applicant committed to revise the EQ documentation package to referenced the wear cycle aging effect on Westinghouse and Joy motors.

WESTINGHOUSE TOPICAL REPORTS Mr. Barry Elliot, NRR

Mr. Elliot presented the materials used, the aging effects, aging management programs, TLAAs, renewal application action items, and significant technical issues for the following Westinghouse Topical Reports:

- Westinghouse Energy Systems WCAP-14422 Rev. 2-A, "Licensing Renewal Evaluation: Aging Management for Reactor Coolant Systems Supports."
- Westinghouse Energy Systems WCAP-14574-A, "License Renewal Evaluation: Aging Management Evaluation for Pressurizers."
- Westinghouse Energy Systems WCAP-14575-A, "Aging Management Evaluation for Class 1 Piping and Associated Pressure Boundary Components."
- Westinghouse Energy Systems WCAP-14577 Rev. 1-A, "License Renewal Evaluation: Aging Management for Reactor Internals."

Mr. Elliot concluded that upon completion of all renewal application action items, applicants who reference the topical reports will have adequately demonstrated that the aging of components within the scope of the topical reports can be managed adequately for the period of extended operations.

Dr. Ford stated that the reports do not provide data concerning the effects on safety margins and questioned how a reviewer would be able to make a decision on the adequacy of the aging management programs. The Subcommittee recognized that this information relates to the current licensing basis and not to the license renewal process.

Dr. Bonaca stated that in order to make a clear distinction between the current licensing basis and license renewal commitments, the SERs should include a description of the philosophy and implementation of the license renewal process.

SUBCOMMITTEE COMMENTS, CONCERNS, AND RECOMMENDATIONS

Mr. Rosen requested additional information concerning allowing continued plant operations when the calculated reference temperature of the reactor pressure vessel (RT_{PTS}) is within a few degrees of the pressurized thermal shock screening criterion.

Mr. Rosen stated that in order to retain corporate knowledge, licensees should be required to provide training on license renewal commitments to their employees.

Mr. Rosen stated that there should be clarity as to how EOPs should be used in the license renewal screening process.

Dr. Ford stated the license renewal application identified aging management programs. However, Dr. Ford expressed his view that the topical reports did not contain sufficient data for reviewers to reach well supported decisions. The topical reports rely on programs that are part of the current licensing basis.

Drs. Shack and Bonaca stated that the table format used in the application was good and easy to follow. Dr. Shack noted that the application on the CD Rom was easy to use, however, the hard copy of the application was difficult to navigate.

Dr. Bonaca agreed with the staff's position concerning the evaluation of seismic ASME Class II pipes located over Class I components

The Subcommittee agreed that the Westinghouse topical reports would be useful for future applicants.

STAFF AND INDUSTRY COMMITMENTS

The staff committed to provide the ACRS with a reference for an explanation of the applicants scoping methodology. [Provided 9/25/01; Application for Renewed Operating License for Turkey Point Units 3 & 4, pages 2.1-4 to 2.1-12]

The staff agreed to consider clarifying its approval for use of the VT-1 inspection for reactor vessel internals including baffle bolts.

The staff committed to provide the ACRS a copy of the Request for Additional Information regarding the integrity of the reactor pressure vessel. [Provided 9/25/01]

SUBCOMMITTEE DECISIONS

The Subcommittee decided not to prepare an interim letter nor a letter concerning the Westinghouse Topical Reports.

The Subcommittee requested that the staff present an abbreviated version of its presentation regarding the SER and Westinghouse Topical Reports to the ACRS on October 5, 2001.

FOLLOW-UP ACTIONS

The Subcommittee plans to visit Turkey Point Units 3 and 4, after the resolution of the remaining open items are documented in the SER.

PRESENTATION SLIDES AND HANDOUTS PROVIDED DURING THE MEETING

The presentation slides and handouts used during the meeting are available in the ACRS office files or as attachments to the transcript.

BACKGROUND MATERIAL PROVIDED TO THE SUBCOMMITTEE:

1. U.S. Nuclear Regulatory Safety Evaluation Report with Open Items Related to the License Renewal of Turkey Point Nuclear Plant, Units 3 and 4, issued August 2001.
2. Selected Sections from the Florida Power and Light, Company's Application for Renewed Operating Licenses, Turkey Point Units 3 & 4, based on individual Members' review assignments.
3. Westinghouse Energy Systems WCAP-14422 Rev. 2-A, "Licensing Renewal Evaluation: Aging Management for Reactor Coolant Systems Supports," issues December 2000.
4. Westinghouse Energy Systems WCAP-14574-A, "License Renewal Evaluation: Aging Management Evaluation for Pressurizers," issued December 2000.
5. Westinghouse Energy Systems WCAP-14575-A, "Aging Management Evaluation for Class 1 Piping and Associated Pressure Boundary Components," issued December 2000.
6. Westinghouse Energy Systems WCAP-14577 Rev. 1-A, "License Renewal Evaluation: Aging Management for Reactor Internals," issued March 2001.

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NOTE: Additional details of this meeting can be obtained from a transcript of this meeting available in the NRC Public Document Room, One White Flint North, 11555 Rockville Pike, Rockville, MD, (301) 415-7000, downloading or viewing on the Internet at "<http://www.nrc.gov/ACRSACNW>," or can be purchased from Neal R. Gross and Co., 1323 Rhode Island Avenue, NW, Washington, D.C. 20005, (202) 234-4433 (Voice), 387-7330 (Fax), e-mail: nrgross@nealgross.com.

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ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
 PLANT LICENSE RENEWAL SUBCOMMITTEE MEETING
 TURKEY POINT UNITS 3 AND 4 APPLICATION AND RELATED
 WESTINGHOUSE TOPICAL REPORTS
 SEPTEMBER 25, 2001
 ROCKVILLE, MARYLAND

- AGENDA -

<u>TOPIC</u>	<u>PRESENTER</u>	<u>TIME</u>
I. Opening Remarks	M. Bonaca, ACRS	8:30-8:35 a.m.
II. Florida Power and Light Company Presentation	FPL Staff	8:35-9:45 a.m.
A. Background		
B. License Renewal Application Scoping and Screening Process (IPA)		
C. Aging Management Reviews		
D. Aging Management Programs		
E. Time Limiting Aging Analyses		
III. Introduction and Overview of SER Related to Turkey Point License Renewal Application	D. Matthews, NRR R. Auluck, NRR	9:45-10:00 ^{10:20-10:55} a.m.

- BREAK -

~~10:00-10:15~~^{10:05-10:20} a.m.

IV. SER Chap. 2.0 - Structures and Components Subject to an Aging Management Review	G. Galletti, NRR B. Thomas, NRR	10:15-10:30 ^{10:55-11:30} a.m.
V. SER Chap. 3.1 - Common Aging Management Programs	M. Khanna, NRR	10:30-11:00 ^{11:20-11:50} a.m.
SER Chap. 3.2 - Reactor Coolant Systems		
SER Chap. 3.3 - Engineered Safety Feature Systems		
VI. SER Chap. 3.4 - Auxiliary Systems	J. Davis, NRR	11:00-11:15 ^{11:50-12:00} a.m.

SER Chap. 3.5: Steam and Power Conversion Systems

VII. SER Chap. 3.6: Structures and Structural Components	C. Munson, NRR	11:15-11:20 ^{12:05-12:15} a.m.
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VIII. SER Chap. 3.7: Electrical and I&C	P. Shemanski NRR	11:20-11:25 ^{12:00-12:05} a.m.
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OMB Number: 1218-0209.

Agency Number: ICR 1218-0209 2001.

Affected Public: Business or other for-profit, Farms, and State, Local or Tribal Government.

Cite/Reference/Form/etc: OSHA Form 196A and OSHA Form 196B.

Total Respondents: 139,000.

Frequency: Annually.

Average Time per Response: 30 minutes.

Estimated Total Burden Hours: 66,720 hours.

Comments submitted in response to this comment request will be summarized and/or included in the request for Office of Management and Budget approval of the information collection request; they will also become a matter of public record.

Dated: September 5, 2001.

John L. Henshaw,

Assistant Secretary.

[FR Doc. 01-22795 Filed 9-10-01; 8:45 am]

BILLING CODE 4510-26-M

NATIONAL CREDIT UNION ADMINISTRATION

Sunshine Act Meeting

TIME AND DATE: 10:00 a.m., Thursday, September 13, 2001.

PLACE: Board Room, 7th Floor, Room 7047, 1775 Duke Street, Alexandria, VA 22314-3428.

STATUS: Open.

MATTERS TO BE CONSIDERED:

1. Requests from Three (3) Federal Credit Unions to Convert to Community Charters.
2. Requests from Three (3) Federal Credit Unions to Expand their Community Charters.
3. Proposed Rule: Amendment to Part 704, NCUA's Rules and Regulations, Corporate Credit Unions.
4. Final Rule: Amendments to Section 701.31(d), NCUA's Rules and Regulations, Nondiscrimination in Advertising.
5. Interim Final Rule: Amendment to Part 707, NCUA's Rules and Regulations, Truth in Savings.

RECESS: 11:15 a.m.

TIME AND DATE: 11:30 a.m., Thursday, September 13, 2001.

PLACE: Board Room, 7th Floor, Room 7047, 1775 Duke Street, Alexandria, VA 22314-3428.

STATUS: Closed.

MATTERS TO BE CONSIDERED:

1. Administrative Action under Section 206 of the Federal Credit Union Act. Closed pursuant to exemptions (8), (9)(A)(ii), and (9)(B).

2. Two (2) Administrative Actions under Part 704 of NCUA's Rules and Regulations. Closed pursuant to exemption (8).

3. Corporate Examination Review Task Force Report and Recommendations. Closed pursuant to exemption (8).

4. One (1) Personnel Matter. Closed pursuant to exemptions (2) and (6).

FOR FURTHER INFORMATION CONTACT: Becky Baker, Secretary of the Board, Telephone 703-518-6304.

Becky Baker,

Secretary of the Board.

[FR Doc. 01-22811 Filed 9-6-01; 8:45 am]

BILLING CODE 7535-01-M

NATIONAL TRANSPORTATION SAFETY BOARD

Sunshine Act Meeting

TIME AND PLACE: 9:30 a.m., Tuesday, September 18, 2001

PLACE: NTSB Conference Center, 429 L'Enfant Plaza SW., Washington, DC 20594.

STATUS: The two items are Open to the Public.

MATTERS TO BE CONSIDERED:

- 7385—Railroad Accident Report: Collision of Amtrak Train 304-26 with a Highway Vehicle at a Highway-Rail Grade Crossing in McLean, Illinois, on September 26, 1999
- 7392A—Marine Accident Report: Fire On Board the U.S. Passenger Ferry Columbia, Chatham Strait, about 30 nautical miles Southwest of Juneau, Alaska, on June 6, 2000

NEWS MEDIA CONTACT: Telephone: (202) 314-6100.

Individuals requesting specific accommodations should contact Ms. Carolyn Dargan at (202) 314-6305 by Friday, September 14, 2001.

FOR FURTHER INFORMATION CONTACT: Vicky D'Onofrio, (202) 314-6410.

September 7, 2001.

Vicky D'Onofrio,

Federal Register Liaison Officer.

[FR Doc. 01-22938 Filed 9-7-01; 3:44 pm]

BILLING CODE 7533-01-M

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards Meeting of the Subcommittee on Plant License Renewal; Notice of Meeting

The ACRS Subcommittee on Plant License Renewal will hold a meeting on September 25, 2001, Room T-2B3, 11545 Rockville Pike, Rockville, Maryland.

The entire meeting will be open to public attendance.

The agenda for the subject meeting shall be as follows: *Tuesday, September 25, 2001—8:30 a.m. until the conclusion of business*

The Subcommittee will discuss the draft Safety Evaluation Report, with open items, concerning the license renewal application for Turkey Point Nuclear Plant, Units 3 and 4; and the associated Westinghouse Topical Reports. The purpose of this meeting is to gather information, analyze relevant issues and facts, and to formulate proposed positions and actions, as appropriate, for deliberation by the full Committee.

Oral statements may be presented by members of the public with the concurrence of the Subcommittee Chairman; written statements will be accepted and made available to the Committee. Electronic recordings will be permitted only during those portions of the meeting that are open to the public, and questions may be asked only by members of the Subcommittee, its consultants, and staff. Persons desiring to make oral statements should notify the cognizant ACRS staff engineer named below five days prior to the meeting, if possible, so that appropriate arrangements can be made.

During the initial portion of the meeting, the Subcommittee, along with any of its consultants who may be present, may exchange preliminary views regarding matters to be considered during the balance of the meeting.

The Subcommittee will then hear presentations by and hold discussions with representatives of the NRC staff, the Florida Power and Light Company, and other interested persons regarding this review.

Further information regarding topics to be discussed, whether the meeting has been canceled or rescheduled, and the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefor, can be obtained by contacting the cognizant ACRS staff engineer, Mr. Noel F. Dudley (telephone 301/415-

6888] between 7:00 a.m. and 3:45 p.m. (EDT). Persons planning to attend this meeting are urged to contact the above named individual one or two working days prior to the meeting to be advised of any potential changes to the agenda, etc., that may have occurred.

Dated: August 30, 2001.

Sher Bahadur,

Associate Director for Technical Support, ACRS/ACNW.

[FR Doc. 01-22763 Filed 9-10-01; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards Meeting of the ACRS Subcommittee on Materials and Metallurgy; Notice of Meeting

The ACRS Subcommittee on Materials and Metallurgy will hold a meeting on September 26, 2001, Room T-2B3, 11545 Rockville Pike, Rockville, Maryland.

The entire meeting will be open to public attendance.

The agenda for the subject meeting shall be as follows: *Wednesday, September 26, 2001—8:30 a.m. until the conclusion of business*

The Subcommittee will discuss the status of the Steam Generator Action Plan and the South Texas Project, Unit 2, tube integrity issues. The purpose of this meeting is to gather information, analyze relevant issues and facts, and to formulate proposed positions and actions, as appropriate, for deliberation by the full Committee.

Oral statements may be presented by members of the public with the concurrence of the Subcommittee Chairman; written statements will be accepted and made available to the Committee. Electronic recordings will be permitted only during those portions of the meeting that are open to the public, and questions may be asked only by members of the Subcommittee, its consultants, and staff. Persons desiring to make oral statements should notify the cognizant ACRS staff engineer named below five days prior to the meeting, if possible, so that appropriate arrangements can be made.

During the initial portion of the meeting, the Subcommittee, along with any of its consultants who may be present, may exchange preliminary views regarding matters to be considered during the balance of the meeting.

The Subcommittee will then hear presentations by and hold discussions with representatives of the NRC staff

and other interested persons regarding this review.

Further information regarding topics to be discussed, whether the meeting has been canceled or rescheduled, and the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefor, can be obtained by contacting the cognizant ACRS staff engineer, Mr. Noel F. Dudley (telephone 301/415-6888) between 7:00 a.m. and 3:45 p.m. (EDT). Persons planning to attend this meeting are urged to contact the above named individual one or two working days prior to the meeting to be advised of any potential changes to the agenda, etc., that may have occurred.

Dated: August 30, 2001.

Sher Bahadur,

Associate Director for Technical Support, ACRS/ACNW.

[FR Doc. 01-22764 Filed 9-10-01; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Sunshine Act Meeting

DATE: Weeks of September 10, 17, 24, October 1, 8, 15 2001

PLACE: Commissioners' Conference Room, 11555 Rockville Pike, Rockville, Maryland

STATUS: Public and Closed

MATTERS TO BE CONSIDERED:

Week of September 10, 2001

There are no meetings scheduled for the Week of September 10, 2001.

Week of September 17, 2001—Tentative

There are no meetings scheduled for the Week of September 17, 2001.

Week of September 24, 2001—Tentative

Friday, September 28, 2001

9:25 a.m. Affirmation Session (Public Meeting) (if needed)

9:30 a.m. Briefing on Decommissioning Activities and Status (Public Meeting) (Contact: John Buckley, 301-415-6607)

1:30 p.m. Briefing on Threat Environment Assessment (Closed-Ex. 1)

Week of October 1, 2001—Tentative

Thursday, October 4, 2001

9:25 a.m. Affirmation Session (Public Meeting) (if needed)

Week of October 8, 2001—Tentative

There are no meetings scheduled for the Week of October 8, 2001.

Week of October 15, 2001—Tentative

Thursday, October 18, 2001

9:00 a.m. meeting with NRC Stakeholders—Progress of Regulatory Reform (Public Meeting) (Location—Two White Flint North Auditorium)

The schedule for Commission meetings is subject to change on short notice. To verify the status of meetings call (recording)—(301) 415-1292.

Contact person for more information: David Louis Gamberoni (301) 415-1651.

The NRC Commission Meeting Schedule can be found on the Internet at: <http://www.nrc.gov/SECU/smj/schedule.htm>

This notice is distributed by mail to several hundred subscribers; if you no longer wish to receive it, or would like to be added to the distribution, please contact the Office of the Secretary, Washington, DC, 20555 (301-415-1969). In addition, distribution of this meeting notice over the Internet system is available. If you are interested in receiving this Commission meeting schedule electronically, please send an electronic message to dkw@nrc.gov.

Dated: September 6, 2001.

David Louis Gamberoni,

Technical Coordinator, Office of the Secretary.

[FR Doc. 01-22852 Filed 9-7-01; 11:50 am]

BILLING CODE 7590-01-M

OFFICE OF MANAGEMENT AND BUDGET

Cumulative Report on Rescissions and Deferrals

August 1, 2001.

Section 1014(e) of the Congressional Budget and Impoundment Control Act of 1974 (Public Law 93-344) requires a monthly report listing all budget authority for the current fiscal year for which, as of the first day of the month, a special message had been transmitted to Congress.

This report gives the status, as of August 1, 2001, of two deferrals contained in one special message for FY 2001. The message was transmitted to Congress on January 18, 2001.

Deferrals (Attachments A and B)

As of July 1, 2001, \$1.4 billion in budget authority was being deferred from obligation. Attachment B shows the status of each deferral reported during FY 2001.

Information From Special Message

The special message containing information on the deferrals that are

ML 01 276
0053

RE/20

COMMITTEE ON REACTOR SAFEGUARDS

MEETING ON PLANT LICENSE RENEWAL

SEPTEMBER 25, 2001

Date

PLEASE PRINT

<u>NAME</u>	<u>NRC ORGANIZATION</u>
H. CHRISTENSEN	NRC Region II
S. Koehnik	NRC / NRR / DRIP / RLSB
R. Auluck	NRC / NRR / DRIP / RLSP
S. Takeyama	NRC / NRR / DRIP / RLSB
PAUL SHERANSKI	NRC / NRR / DE / EEIB
JAMES MEDOFF	NRC / NRR / DE / EMCB
G. Galletti	NRC / NRR / DE / IGPB
Hai-Bin Wang	NRC / NRR / DRIP / RLSB
John R. Fair	NRC / NRR / DE
Chang-Yang Li	NRC / NRR / SPLB
Steve Hoffman	NRR / DRIP / RLSB
Duc Nguyen	NRR / DE / EEIB
K. Yarczewski	NRR / DE / EMCB
J. DAVIS	NRR / DE / EMCB
Y.C. Renee Li	NRR / DE / EMCB
Arnold J. Lee	NRR / DE / EMCB
PAT PATNAIK	NRR / DE / EMCB
W. BURTON	NRR / DRIP / RLSB
B. ELLIOT	NRR / DE / EMCB
C. Lauron	NRR / DE / EMCB
Larry Campbell	NRC / NMSS / DWM
A. A. Razzagun	NRC / DSSA / BRXB
S. K. MITRA	NRC / DRIP / RLSP

**ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
SUBCOMMITTEE MEETING ON PLANT LICENSE RENEWAL**

SEPTEMBER 25, 2001
Date

PLEASE PRINT

<u>NAME</u>	<u>NRC ORGANIZATION</u>
Andrea Keim	NRC/DE/EMCB
BRIAN THOMAS	NRC/NRR/SPLB
Hans Asher	NRC/NRR/EMEB
KAMAL MANOLY	" " " "
Daniel Frumkin	NRC/NRR/DSSA/SPLB
David C. Jenz	NRC/NRR/DE/EMEB
J. S. Gub	NRC/NRR/DSSA/SPLB
NAEEM TOBAL	NRC/NRR/DSSA/SPLB
FRANCIS T. GRUBELICH	NRC/NRR/DE/EMEB
Aneeta Khanna	NRC/NRR/DE/EMCB
Dale F. Thatcher	NRC/NRR/DIPM/IQPB
Bill Rogers	NRC/NRR/DIPM/IQPB
Rich McLatona	NRC/NRR/DIPM/IQPD
R. PETTIS	NRC/NRR/IQPB
J. Peralta	NRC/NRR/DIPM
J. Rajan	NRC/NRR/DE/EMEB
C. Holden	NRC/NRR/DE/EMEB
M. HARTZMAN	NRC/NRR/DE/EMEB
Allen Hsiao	NRC/NRR/DE/EMCB
KEITH WICHMAN	" " " "
ANDREA LEE	" " " "
W. Bateman	NRC/NRR/DE/EMEB
JOHN S. MA	



LICENSE RENEWAL

TURKEY POINT PLANT

ACRS

SUBCOMMITTEE MEETING

September 25, 2001



Agenda

- Background
- Scoping And Screening Process
- Aging Management Reviews
- Time Limited Aging Analyses



Background

- Strategic planning for license renewal of FPL nuclear plants began in 1992
- FPL active in license renewal industry groups since 1993
- Integrated Plant Assessment (IPA) and Time Limited Aging Analyses (TLAAs) efforts for Turkey Point initiated in 1999
- License Renewal Application (LRA) submitted in September 2000



Background

- Safety Review Requirements and Guidance
 - 10 CFR Part 54-License Renewal Rule
 - Draft Standard Review Plan for License Renewal
 - Draft GALL Report
 - Regulatory Guide DG-1047
 - NRC position letters on generic issues
 - NEI 95-10
 - Westinghouse Owners' Group (WOG) License Renewal Guidelines



Background

- IPA/TLAA Technical Work Description
 - Initial procedures piloted in 1996
 - Procedures based on making the best use of existing design references and tools
 - Information trips made to other applicants
 - In-depth review of another applicant's technical documents performed by core team



Background

- IPA/TLAA Technical Work Description (cont.)
 - Lessons learned from NRC review of previous applications, RAIs and RAI responses, and resolution to generic issues factored into procedures and output documents, as available
 - Technical work performed in accordance with the FPL Quality Assurance Program
 - Work products have undergone significant internal and external independent reviews



Scoping And Screening Process

- Scoping
 - Purpose - To identify Systems and Structures within the scope of License Renewal
 - Scoping Criteria - Systems and Structures which are:
 - Safety Related
 - Non-Safety Related which can Affect Safety Related
 - Systems and Structures relied on to demonstrate compliance with Fire Protection, Environmental Qualification, Pressurized Thermal Shock, Anticipated Transients without Scram, and Station Blackout



Scoping And Screening Process

- Scoping - Safety Related
 - Safety Related definitions in FPL procedures the same as 10 CFR Part 54
 - Used UFSAR, Technical Specifications, licensing correspondence, Design Basis Documents (DBDs), Component Database, and design drawings
 - All systems and structures were reviewed for SR components and structural components



Scoping And Screening Process

- Scoping - Non Safety which can affect Safety Related
 - Used UFSAR, Technical Specifications, licensing correspondence, DBDs, Component Database, design drawings, and pipe stress analyses
 - Two categories
 - Provides functional support
 - Potential for interactions



Scoping And Screening Process

- Scoping - Regulated Events
 - Used UFSAR, Technical Specifications, licensing correspondence, DBDs, Component Database, design drawings
 - Also used Appendix R Safe Shutdown Analysis and Essential Equipment List, EQ List in the Component Database, and Station Blackout Load List



Scoping And Screening Process

- Screening
 - Purpose - To identify Structures and Components (SCs) which require an Aging Management Review
 - Screening Criteria - SCs which:
 - Support License Renewal System Intended Functions (component level scoping)
 - Perform the intended functions without moving parts or without a change in configuration or properties (passive)
 - Are not subject to replacement based on a qualified life or specified time period (long-lived)



Scoping And Screening Process

- Mechanical System Screening
 - Evaluation boundaries and interfaces are established
 - SCs that are included within a system's evaluation boundaries are identified
 - SCs that support system intended functions are identified
 - SCs that are passive are identified
 - SCs that are long-lived are identified
 - Component Intended Functions for SCs requiring an Aging Management Review are identified



Scoping And Screening Process

- Civil/Structural Screening
 - SCs for each structure are identified
 - SCs identified include non-current carrying electrical and I&C components
 - SCs that support each of the structure intended functions are identified
 - SCs that are passive are identified
 - SCs that are long-lived are identified
 - Component Intended Functions for SCs requiring an Aging Management Review are identified



Scoping And Screening Process

- Electrical/I&C Screening
 - Component commodity groups are identified
 - Descriptions and functions for each component commodity group are identified
 - Component commodity groups that are passive are identified
 - Component commodity groups that are long-lived are identified
 - Component commodity groups covered by 10 CFR 50.49 EQ Program are considered to be subject to replacement based on qualified life



Aging Management Reviews

- Purpose- For each SC requiring an Aging Management Review (AMR), demonstrate that the effects of aging will be adequately managed so that the intended functions will be maintained consistent with the Current Licensing Basis for the extended period of operation



Aging Management Reviews

- Aging effects requiring management established based on review of engineering inputs
 - AMR technical resources
 - AMR operating experience reviews
 - AMR peer reviews
- Methodology for determining aging effects requiring management for civil/mechanical SSCs in LRA
Appendix C



Aging Management Reviews

- AMR Technical Resources
 - WOG Generic Technical Reports (15 total)
 - NUMARC License Renewal Industry Reports
 - B&W Tools (both Mechanical and Civil/Structural)
 - Another applicant's IPA technical documents
 - Submitted applications
 - Materials handbooks and in-house materials expertise
 - Participation in industry groups



Aging Management Reviews

- AMR Operating Experience Reviews
 - Reviewed applicable INPO and NRC generic communications and FPL responses
 - Extensive review of plant specific history including:
 - Non-Conformance and Condition Reports
 - Event Response Team and Licensee Event Reports
 - FPL Metallurgical Laboratory Reports
 - Interviews with component/system engineers and plant walk-downs
 - Used as input for identification of aging effects
 - Establishes track record for managing aging



Aging Management Reviews

- AMR Peer Reviews
 - License renewal staff members from other applicants
 - Licensing and technical license renewal consultants
 - Specific review of Class 1 AMR documents by Framatome
 - FPL technical chief for electrical/I&C areas



Aging Management Reviews

- Aging Management Programs
 - Performed ten attribute evaluation used in Turkey Point LRA Appendix B
 - Bridged programs described in the Turkey Point LRA with actual implementation in the field
 - Identified specific plant procedures required to implement the programs
 - Identified specific program commitments



Time Limited Aging Analyses

- TLAAAs are defined by 10 CFR 54.3
- Process to identify TLAAAs for Turkey Point is consistent with the guidance in NEI 95-10
 - Involved an extensive review of the UFSAR, Technical Specifications, licensing correspondence and DBDs



Time Limited Aging Analyses

- No exemptions were identified involving TLAAAs
- TLAAAs for Turkey Point
 - Reactor Vessel Irradiation Embrittlement
 - Class 1 and non-Class 1 Fatigue
 - Equipment Qualification
 - Containment Tendon Relaxation
 - Containment Liner Fatigue
 - Wear/Erosion
 - Crane Fatigue



Conclusions

- The aging management programs at Turkey Point will adequately manage aging effects so that the intended functions of in-scope SSCs will be maintained consistent with the current licensing basis for the period of extended operation
- All TLAAs for Turkey Point were identified, evaluated, and shown to be acceptable for the extended period of operation

**ACRS LICENSE RENEWAL SUBCOMMITTEE
TURKEY POINT LICENSE RENEWAL APPLICATION
SEPTEMBER 25, 2001**

**RAJ AULUCK
PROJECT MANAGER
NRR**

TURKEY POINT LICENSE RENEWAL APPLICATION

Introduction	David Matthews
Overview	Raj Auluck
Scoping and Screening	Greg Galletti Brian Thomas
Aging Mangement Review	
Reactor Coolant System	Meena Khanna
Engineered Safety Features	Meena Khanna
Auxiliary Systems	James Davis
Steam and Power Conversion Systems	James Davis
Structures and Structural Components	Clifford Munson
Electrical Systems	Paul Shemanski
Aging Management Programs	Andrea Keim
Time-limited Aging Analyses	Barry Elliott Paul Shemanski

OVERVIEW

BACKGROUND

Application Submitted by Letter Dated September 8, 2000

3-Loop Westinghouse, Pressurized Water Reactor. 2 Unit Site, Each Designed for 2300 MWT

Plant Located in Dade County, Florida City, Florida, Approximately 25 Miles South of Miami

Unit 1: License Expires July 19, 2012. Requests Renewal Through July 19, 2032

Unit 2: License Expires April 10, 2013. Requests Renewal Through April 10, 2033

Review Status

OVERVIEW (CONT.)

Turkey Point License Renewal Application Review Schedule

MILESTONE	TARGET DATE	ACTUAL DATE
Receive License Renewal Application	09/11/00	09/11/00
Notice Application Tendered	09/26/00	09/26/00
Complete Acceptance Review of Application	10/10/00	10/04/00
Publish Acceptance Review & Docket Application/Notice of Opportunity for Hearing	10/17/00	10/12/00
Notice of Intent/Notice of Environmental Scoping Meeting	10/20/00	10/24/00
Deadline for Filing Hearing Requests and Petitions for Intervention	11/17/00	11/13/00
Environmental Scoping Meeting	12/06/00	12/06/00
EIS Scoping Period Ends	12/22/00	12/22/00
Staff Complete Environmental RAIs	01/31/01	01/31/01
Staff Complete Safety RAIs	02/05/01	02/02/01
Applicant Responds to Environmental RAIs	03/30/01	03/30/01
Applicant Responds to Safety RAIs	04/23/01	04/19/01
Complete Scoping Inspection	06/22/01	05/25/01
Staff Issue Draft EIS for Comment	07/17/01	06/12/01
Staff Issue SER & Identify Open Items	08/17/01	08/17/01
Public Meeting to Discuss DEIS	07/17/01	07/17/01
ACRS Subcommittee Meeting	09/25/01	
ACRS Full Committee Meeting	10/5/01	
Complete Aging Management Review Inspection	09/14/01	09/14/01
End of DEIS Comment Period	09/06/01	09/06/01
Applicant Completes Responses to SER Open Items	12/17/01	
Staff Issue Final EIS	01/29/02	
Complete Optional Final Inspection	03/15/02	
Staff Issue SSER	04/15/02	
ACRS Subcommittee Meeting	05/02/02	
Regional Administrator's Letter	05/03/02	
ACRS Full Committee Meeting	05/16/02	
ACRS Letter	05/24/02	
Issue SER as NUREG	05/30/02	
Commission Paper W/Staff Recommendations	12/2/02	
Commission Decision	03/10/03	

OVERVIEW (CONT).

- **SER Format Follows the License Renewal Application Format**
 - **Chapter 1 - Introduction and General Discussion**
 - **Chapter 2 - Structures and Components Subject to Aging Management Review (Scoping and Screening)**
 - **Chapter 3 - Aging Management Review (AMRs) Results Including Aging Management Programs**
 - **Chapter 4 - Time-limited Aging Analyses (TLAAs)**

OVERVIEW (CONT.)

- **First Westinghouse PWR**
- **FPL Participated in Westinghouse Owners Group (WOG)**
- **Four Westinghouse Generic Reports (WCAPs) Submitted for NRC Staff Review**
- **At the Time of Application, NRC Staff Review was not Complete**
- **Application Addresses Applicability of WCAPs to Turkey Point**

OVERVIEW (CONT.)

OPEN ITEMS

- **Scoping of Seismic II/I Piping Systems (SER Sections 2.1.2 and 3.4.16.4)**
- **Reactor Vessel Head Alloy 600 Penetration Inspection Program (SER Section 3.9.12)**
- **Reactor Vessel Underclad Cracking (SER Section 4.3)**
- **Acceptance Criteria for Field Erected Tanks Internal Inspection (SER Section 3.8.4)**

OVERVIEW (CONT.)

INSPECTION ACTIVITIES

- **Scoping Inspection - May 21 - 25, 2001**
- **AMR Inspection - August 20 - 24, 2001 and September 10 - 14, 2001**
- **Overall Material Condition of the Plant Looked Good**
- **Backup Documentation for Scoping and Screening Process was Complete**
- **Reviewed Several AMR Supporting Documents for New and Existing Programs**
- **Team Concluded that these Documents were Complete and Easy to Follow**

SER SECTION 2 - STRUCTURES AND COMPONENTS SUBJECT TO AN AGING MANAGEMENT REVIEW

2.1 - SCOPING AND SCREENING METHODOLOGY

Greg Galletti

- Overview**
- On-Site Audit**
- Findings**
- Conclusions**

Open Item: Scoping of Seismic II/I Piping

SER SECTION 2 - STRUCTURES AND COMPONENTS SUBJECT TO AN AGING MANAGEMENT REVIEW

2.2-5 - SCOPING AND SCREENING - SYSTEMS AND STRUCTURES B. Thomas

- **Reactor Coolant Systems (7 Systems)**
(e.g. Reactor Vessels, Pressurizers, etc....)
- **Engineering Safety Features (7 Systems)**
(e.g. Residual Heat Removal, Containment Spray etc....)
- **Auxiliary Systems (15 Systems)**
(e.g. Intake Cooling Water, Fire Protection, etc.....)
- **Steam and Power Conversion Systems (3 Systems)**
(e.g. Main Steam and Turbine Generators Feedwater and Blowdown, etc.)

- **Structures**

Containment and 18 other structures

(e.g., auxiliary building , control building, cooling water canals, etc.)

- **Electrical and Instrumentation and Controls**

Open Items: None

SER SECTION 3 - AGING MANAGEMENT REVIEW

3.1 COMMON AGING MANAGEMENT PROGRAMS

Meena Khanna

- Chemistry Control Program**
- FPL Quality Assurance Program**
- Systems and Structures Monitoring Program**

Open Items: None

SER SECTION 3 - AGING MANAGEMENT REVIEW

3.2 - REACTOR COOLANT SYSTEMS

Meena Khanna

**Reactor Coolant Piping
Regenerative and Excess
Letdown Heat Exchangers
Pressurizers**

**Reactor Vessels
Reactor Coolant Internals
Reactor Coolant Pumps
Steam Generators**

Items of Interest

- **AMR results compared to topical reports (WCAP-14574 on Pressurizers, WCAP-14575 on Piping, and WCAP-14577 on Reactor Vessel Internals) but does not incorporate the topical report results by reference**
- **Reactor vessel head penetration nozzle cracking managed by RV Head Alloy 600 Penetration Inspection Program**

Open Items: None

SER SECTION 3 - AGING MANAGEMENT REVIEW

3.3 - ENGINEERED SAFETY FEATURES (ESF) SYSTEMS

Meena Khanna

ESF Systems Include:

Emergency Containment Cooling

Containment Spray

Containment Isolation

Safety Injection

Residual Heat Removal

Emergency Containment Filtration

Containment Post Accident Monitoring and Control

Items of Interest:

The applicant adequately identified the aging effects and applicable aging management programs for each component of the ESF System.

Open Items: None

SER SECTION 3- AGING MANAGEMENT REVIEW

3.4 - AUXILIARY SYSTEMS

James Davis

Includes 15 Systems

Intake Cooling Water

Component Cooling Water

Spent Fuel Pool Cooling

Chemical and Volume Control

Primary Water Makeup

Sample Systems

Waste Disposal

Instrument Air

Normal Containment and Control Rod Drive Mechanism Cooling

Auxiliary Building and Electrical Equipment Room Ventilation

Control Building Ventilation

Emergency Diesel Generator Building Ventilation

Turbine Building Ventilation

Fire Protection

Emergency Diesel Generators and Support Systems

Open Items: None

SER SECTION 3 - AGING MANAGEMENT REVIEW

3.5 - STEAM AND POWER CONVERSION SYSTEMS

James Davis

Includes 3 Systems

Main Steam and Turbine Generators

Feedwater and Blowdown

Auxiliary Feedwater and Condensate Storage

Open Items: None

SER SECTION 3 - AGING MANAGEMENT REVIEW

3.6 - STRUCTURES AND STRUCTURAL COMPONENTS

Clifford Munson

STRUCTURAL COMPONENTS AND COMMODITIES

CONTAINMENT

Containment Structure Concrete Components

Containment Structure Steel Components

Containment Structure Post - Tensioning System

Containment Internal Structural Concrete Components

Containment Internal Structural Steel Components

OTHER STRUCTURES

Steel in Air Structural Components

Steel in Fluid Structural Components

Concrete Structural Components

Miscellaneous Structural Components

Open Items: None

SER SECTION 3 - AGING MANAGEMENT REVIEW

3.7 - ELECTRICAL AND INSTRUMENTATION AND CONTROLS Paul Shemanski

The following is a list of in-scope electrical component types subject to aging management review:

- **Insulated cables and connections (including splices, connectors, and terminal blocks) not included in the Environmental Qualification Program**
- **Uninsulated Ground Conductors**
- **Twenty-two Electrical/I&C penetration assemblies that are within the scope of license renewal but not included in the Environmental Qualification Program**

Items of Interest

- **No AMP required for non-EQ medium voltage cables subject to significant moisture. Cables designed with lead sheath to prevent failure from water treeing due to moisture ingress.**
- **Based on staff review, the applicant developed a new AMP for non-EQ cables, connections, and electrical/I&C penetrations.**

Open Items: None

SER SECTION 3 - AGING MANAGEMENT REVIEW

3.8 - NEW AGING MANAGEMENT PROGRAMS

Andrea Keim

- **Auxiliary Feedwater Pump Oil Coolers Inspection Program**
- **Auxiliary Feedwater Steam Piping Inspection Program**
- **Emergency Containment Coolers Inspection Program**
- **Field Erected Tanks Internal Inspection Program**
- **Galvanic Corrosion Susceptibility Inspection Program**
- **Reactor Vessel Internal Inspection Program**
- **Small Bore Class I Piping Inspection Program**

SER SECTION 3 - AGING MANAGEMENT REVIEW

3.8 - NEW AGING MANAGEMENT PROGRAMS

Clifford Munson

3.8.4 FIELD ERECTED TANKS INTERNAL INSPECTION

Items of Interest

Proposed One Time Visual Inspection of

- **Condensate Storage Tanks (CST)**
- **Demineralized Water Storage Tanks (DWST)**
- **Refueling Water Storage Tank (RWST)**

Open Items:

- **Acceptance criteria not yet developed**
- **Previous inspection of CST showed corrosion at some of the welds and coating degradation at several areas**
- **DWST and RWST have never been inspected internally**

SER SECTION 3 - AGING MANAGEMENT REVIEW

3.8 5 - GALVANIC CORROSION SUSCEPTIBILITY INSPECTION PROGRAM

James Davis

The Galvanic Corrosion Susceptibility Inspection Program is Credited for Aging Management of Specific Component/Commodity Groups in the Following Systems:

Auxiliary Feedwater and Condensate Storage

Component Cooling Water

Control Building Ventilation

Emergency Diesel Generators and Support Systems

Fire Protection

Normal Containment & CRD Mechanism Cooling

Reactor Coolant

Safety Injection

Turbine Building Ventilation

Chemical and Volume Control

Containment Spray

Emergency Containment Cooling

Feedwater and Blowdown

Instrument Air

Residual Heat Removal

Spent Fuel Pool Cooling

Waste Disposal

Scope

- **Manage the Potential Effects of Loss of Material due to Galvanic Corrosion - Internal Surfaces of Susceptible Piping and Components.**
 - **Carbon steel components coupled to stainless steel components in raw water systems.**
 - **Baseline examinations to establish if the corrosion mechanism is active in other systems.**
 - **One-time inspections to determine the need for additional actions.**

Open Items: None

SER SECTION 3 - AGING MANAGEMENT REVIEW

3.9 Existing Aging Management Programs

- **ASME Section XI Inservice Inspection Programs**
- **Boraflex Surveillance Program**
- **Boric Acid Wastage Surveillance Program**
- **Chemistry Control Program**
- **Containment Spray System Piping Inspection Program**
- **Environment Qualification Program**
- **Fatigue Monitoring Program**
- **Fire Protection Program**
- **Flow-Accelerated Corrosion Program**
- **Intake Cooling Water System Inspection Program**
- **Periodic Surveillance and Preventive Maintenance Program**
- **Reactor Vessel Head Alloy 600 Penetration Inspection Program**
- **Reactor Vessel Integrity Program**
- **Steam Generator Integrity Program**
- **Systems and Structures Monitoring Program**
- **Thimble Tube Inspection Program**

SER SECTION 4 - TIME-LIMITED AGING ANALYSIS

4.1 IDENTIFICATION OF TLAAs

- **Reactor Vessel Irradiation Embrittlement**
- **Metal Fatigue**
- **Environmental Qualification of Electrical Equipment**
- **Containment Tendon Loss of Prestress**
- **Containment Liner Plate Fatigue**
- **Other Plant Specific TLAAs**
 - **Bottom Mounted Instrumentation Thimble Tube Wear**
 - **Emergency Cooler Tube Wear**
 - **Leak-Before- Break for RCS Piping**
 - **Crane Load Cycle Limit**

SER SECTION 4 - TIME-LIMITED AGING ANALYSES

4.2 - REACTOR VESSEL IRRADIATION EMBRITTLEMENT

Barry Elliott

- Pressurized Thermal Shock**
- Charpy Upper Shelf Energy**
- Pressure Temperature Limits**

Items of Interest

- Applicant must apply the chemistry factor ratio adjustment described in RG 1.99, Rev. 2, Position 2.1, to the surveillance data when submitting the 48 EFPY P-T limits curves to ensure an accurate assessment of the data.**
- Circumferential weld (heat number 72442) between the nozzle belt and the intermediate shell exhibits a relatively high RT_{PTS} at EOL, and therefore this material should be tracked and considered by the licensee in future submittals.**

Open Items: None

SER SECTION 4 - TIME-LIMITED AGING ANALYSES

4.3 - METAL FATIGUE

Barry Elliott

Open Item:

Complete staff review of Westinghouse Tropical Report WCAP-15338 regarding the evaluation of underclad cracking

SER SECTION 4 - TIME-LIMITED AGING ANALYSES

4.4 - ENVIRONMENTAL QUALIFICATION

Paul Shemanski

Items of Interest:

The electrical equipment identified in Section 4.4.1 of the LRA, the applicant uses 10 CFR 54.21(c)(1)(i) in its TLAA evaluation to demonstrate that the analyses remain valid for the period of extended operation. The staff disagrees and finds the applicant's demonstration to be consistent with 10 CFR 54.21(c)(1)(ii). However, the staff accepted the applicant's classification of these TLAAs under 10 CFR 54.21(c)(1)(i) since it does not affect the technical adequacy of the equipment qualification.

The applicant did not address the wear cycle aging effect on motors (Westinghouse and Joy) adequately. The applicant committed to revise the EQ documentation package for these motors to address the staff's concern.

Open Items: None

Reactor Vessel Head Alloy 600 Penetration Inspection Program

- Program proposed to manage and monitor for primary water stress corrosion cracking in Alloy 600 vessel head penetration (VHP) nozzles
- Program based on Generic Letter 97-01 inspections
 - Non-qualified visual examinations in both units and one time volumetric examination of the VHP nozzles of the Turkey Point Unit 4
 - proposed program does not address potential for cracking to initiate from in the J-groove weld or heat affected zone of the nozzle
 - proposed program does not address potential for undetected circumferential cracking to exist the VHP nozzles of the Turkey Point units
- Open Item created to ensure that the Reactor Vessel Head Alloy 600 Penetration Inspection Program will be consistent with NRC Bulletin 2001-01, and the industry's and staff's efforts to ensure that the proposed inspections of the Turkey Point VHP nozzles will be sufficient to ensure the integrity of the nozzles during the extended periods of operation for the Turkey Point units

**ACRS LICENSE RENEWAL SUBCOMMITTEE
WESTINGHOUSE TOPICAL REPORTS REFERENCED IN THE
TURKEY POINT LICENSE RENEWAL APPLICATION
SEPTEMBER 25, 2001**

**BARRY ELLIOT
NRR**

Aging Management Evaluation for Class 1 Piping and Associated Pressure Boundary Components

WCAP-14575

Materials used in Class 1 Piping and associated Pressure Boundary Components

- Class 1 piping, fittings, valve bodies and bonnets and reactor coolant pump (RCP) casings are all stainless steel
- RCP bolting are alloy steel
- Valve bolting are carbon steel, alloy steel or stainless steel

WCAP - 14575 identifies the following aging effects for Class 1 Piping and associated Pressure Boundary Components

- Fatigue related cracking
- Corrosion of external surfaces caused by leakage of borated water
- Reduction of fracture toughness due to thermal aging of Cast Stainless Steel
- Loss of material caused by wear of RCP and valve bolted closure elements
- Loss of bolting preload caused by stress relaxation of bolted closures

WCAP - 14575 identifies the following aging management programs (AMP)

- Inservice inspection and test requirements of ASME Code, Section XI and ASME/ANSI OM standards to manage the aging effect of wear
- Inservice inspection requirements of ASME Code, Section XI to manage stress relaxation
- Commitments in response to NRC Generic Letter 88-05, "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants," to manage corrosion caused by borated water leakage
- Identifies analysis methods and inspection requirements to manage fatigue related cracking
- Identifies analysis methods and inspection requirements to manage the reduction in fracture toughness due to thermal aging

WCAP - 14575 identifies the following TLAAs

- Fatigue evaluations
- Leak-Before-Break (LBB) evaluations

License Renewal Evaluation: Aging Management for Reactor Internals

WCAP - 14577

Materials used in Reactor Internals are stainless steel and nickel based alloys

WCAP - 14577 identifies the following aging effects for Reactor Internals

- Reduction of fracture toughness due to neutron irradiation of high neutron fluence components
- Irradiation-assisted stress corrosion cracking of high neutron fluence components
- Irradiation creep of baffle/former and barrel/former bolts
- Combination of stress relaxation and high-cycle fatigue for preloaded components
- Wear of components that experience axial sliding (BMI flux thimbles) and components that constitute the interface between (keys, insert and pins) structural components
- Void swelling of high neutron fluence components

WCAP - 14577 identifies the following AMPs

- **Inservice Inspection requirements of ASME Code, Section XI and the results from the PWR Materials Reliability Project to manage the reduction of fracture toughness, irradiation-assisted stress corrosion cracking, and void swelling**
- **Inservice Inspection requirements of ASME Code, Section XI of accessible surfaces of PWR core support structures (excluding baffle/former and barrel/former bolts) to manage stress relaxation and wear of keys, inserts, and pins - or - Neutron noise monitoring**
- **Ultrasonic or eddy current examination per responses to I&E Bulletin 88-09 to manage wear of BMI flux thimbles**
- **Augmented ultrasonic examination of baffle/former and barrel/former bolts to manage aging effects of these components**
- **Inservice inspection requirements of ASME Code, Section XI and a fatigue management program to manage fatigue**

WCAP - 14577 identifies fatigue as a TLAA

License Renewal Evaluation: Aging Management Evaluation for Pressurizer

WCAP - 14574

Materials used in the Pressurizer

- Upper and lower heads are either low alloy steel plates or cast carbon steel with stainless steel clad
- Surge nozzle is either cast with the lower head or forged from low alloy steel
- Surge nozzle, safety nozzles, relief nozzle and spray nozzle safe ends are stainless steel and are welded to the nozzle using Inconel 182/82 or stainless steel
- Shell is alloy steel with stainless steel clad
- Heater Wells, surge nozzle retaining basket, instrument nozzles, heater support plate, heater bracket, and heater bolts are stainless steel
- Support Skirt and flange are carbon steel plate
- Spray head is cast stainless steel
- Manway cover and manway bolting are alloy steel

- Surge nozzle and spray nozzle thermal sleeves are stainless steel

WCAP - 14574 identifies the following aging effects for Pressurizer components

- Fatigue related cracking
- Primary water stress corrosion cracking (PWSCC) of Inconel 82/182 weld metal and sensitized stainless steel safe ends

WCAP - 14574 identifies the following AMPs

- Inservice inspection requirements of ASME Code, Section XI and a fatigue management program to manage fatigue
- Inservice Inspection requirements of ASME Code, Section XI to manage PWSCC of Inconel 82/182 weld metal and sensitized stainless steel safe ends

WCAP - 14574 identifies fatigue as a TLAA

License renewal Evaluation: Aging Management for Reactor Coolant System Supports

WCAP - 14422

Steel components and concrete embedments are the materials used for Reactor Coolant System Supports

WCAP - 14422 identifies the following aging effects for Reactor Coolant System Supports

- Loss of material and decrease of strength of steel components resulting from aggressive chemical attack and corrosion
- Loss of material and decrease of strength of concrete embedments resulting from aggressive chemical attack and corrosion
- Stress corrosion cracking of bolting

WCAP - 14422 identifies the following AMPs

- Inservice Inspection requirements of ASME Code, Section XI and leakage identification walkdowns to manage aggressive chemical attack and corrosion for steel components
- Inservice Inspection to ACI 349 Code and leakage identification walkdowns to manage aggressive chemical attack and corrosion for concrete embedments
- Inservice Inspection requirements of ASME Code, Section XI to manage stress corrosion cracking of bolting

WCAP - 14422 indicates that applicants must address the following plant-specific action items

- Applicant must identify program necessary to ensure proper preload is maintained
- Applicant must address the effects of irradiation on concrete components
- Applicant must address inaccessible areas

WCAP - 14422 identifies fatigue as a TLAA

Staff Evaluation

Renewal Applicant Action Items

- Staff has identified 10 renewal applicant action items in its evaluation of WCAP-14575, Class 1 Piping and Associated Pressure Boundary Piping
- Significant Technical Issues:
 - Evaluate the impact of halogens in insulation on stress corrosion cracking of stainless steel piping
 - Perform additional volumetric inspection of small bore piping that is susceptible to stress corrosion cracking or unanticipated thermal fatigue resulting from thermal stratification or turbulent penetration
 - Evaluate the susceptibility of cast stainless steel piping to thermal embrittlement
 - Perform plant-specific fatigue evaluation
 - Perform plant-specific leak-before-break analysis to assess margins on load

- Staff has identified 11 renewal applicant action items in its evaluation of WCAP-14577, Reactor Vessel Internals
- Significant Technical Issues:
 - Evaluate the synergistic effects of thermal aging and neutron embrittlement on the fracture toughness of cast austenitic stainless steel components
 - Describe its aging management plan for void swelling, cracking and loss of fracture toughness
 - Address plant-specific plans for management of age-related degradation of baffle/former and barrel/former bolting
 - Perform plant-specific fatigue evaluation

- Staff has identified 10 renewal applicant action items in its evaluation of WCAP-14574, Pressurizer
- Significant Technical Issues:
 - Perform plant-specific fatigue evaluation including insurge/outsurge and other transient loads not included in the CLB
 - Evaluate the potential for bolting to develop stress corrosion cracking
- Staff has identified 16 renewal applicant action items in its evaluation of WCAP-14422, Reactor Coolant System Supports

CONCLUSION

Upon completion of all renewal applicant action items, license renewal applicants who reference the WOG reports adequately demonstrate that the aging of the components within the scope of the WOG report can be managed so that there is reasonable assurance that the components will perform their intended functions in accordance with the current licensing basis during the period of extended operation