



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D.C. 20555-0001
November 9, 2001

MLD13030043

MEMORANDUM TO: ACRS Members

FROM: *Noel Dudley*
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 HATCH UNITS 1 AND 2, OCTOBER 25, 2001 ROCKVILLE,
MARYLAND

The minutes of the subject meeting, issued on October 30, 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 HATCH UNITS 1 AND 2,
OCTOBER 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 30, 2001, are an accurate record of the proceedings for the meeting.

Mario Bonaca

Dr. Mario Bonaca, Chairman
Plant License Renewal Subcommittee

11/8/01

Date

CERTIFIED

Issued: 10/30/01
Certified: 11/8/01

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
MINUTES OF ACRS SUBCOMMITTEE MEETING ON
PLANT LICENSE RENEWAL
HATCH UNITS 1 AND 2
OCTOBER 25, 2001
ROCKVILLE, MARYLAND

The ACRS Subcommittee on Plant License Renewal held a meeting on October 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 Southern Nuclear Operating Company, Inc., (SNC) concerning the open and confirmatory items identified in the safety evaluation report (SER) related to the license renewal of the Edwin I. Hatch Nuclear Plant, Units 1 and 2. The meeting was convened at 8:30 a.m. on October 25, 2001, and adjourned at 11:50 a.m. on the same day.

ATTENDEES:

ACRS

M. Bonaca, Chairman
P. Ford, Member
T. Kress, Member

W. Shack, Member
J. Barton, Consultant
N. Dudley, ACRS Staff

NRC STAFF

C. Grimes, NRR
J. Nakoski, NRR
J. Davis, NRR

T. Eaton, NRR
C. Carpenter, NRR
W. Burton, NRR

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

R. Baker, SNC
C. Pierce, SNC

M. MacFarlane, SNC
R. Dyle, SNC

There were no written comments or requests for time to make oral statements received from members of the public. Approximately four 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, introduced the ACRS members and consultant, and stated that the purpose of the meeting was to discuss the staff's final SER related to the license renewal of Edwin I. Hatch Nuclear Plant, Units 1 and 2. He noted that the Subcommittee reviewed the SER with open items on March 28, 2001, and that the Committee issued a letter to Dr. William Travers, Executive Director for Operations, concerning the SER on April 16, 2001. He called upon Mr. Christopher Grimes, NRR, to begin.

RESOLUTION OF SAFETY EVALUATION REPORT (SER) OPEN ITEMS

Introduction: Mr. Christopher Grimes and Mr. William Burton, NRR

Mr. Grimes thanked the Subcommittee for reviewing the final SER and introduced the NRR staff members who would be making the presentation. Mr. Grimes explained that he would have to leave to attend another meeting and expected the staff to fully understand any issues that the Subcommittee members raised so that the issues could be addressed at the November 8, 2001 ACRS meeting session.

Mr. Burton provided an overview of the staff's review of the Hatch license renewal application and highlighted the staff's review schedule. He discussed each of the following 13 open items that were resolved without appeal and explained the basis for the staff's closure of the items.

Open Item 2.3.3.2-1: Screening of Skid-Mounted Components

The applicant agreed to include additional skid-mounted components associated with the emergency diesel generators and hydrogen recombiners in the scope of license renewal and to identify appropriate aging management programs.

Dr. Bonaca, ACRS, noted that this issue had been resolved during the staff's review of previous applications and asked how the staff's position would be clarified for future applicants, so that it would not be contested in future license renewal applications. Mr. Burton explained that the staff had not resolved this item at the time the Hatch application was submitted and reviewed. He noted that future applicants will have the benefit of SER writeups from this application.

Open Item 2.3.4.2-2: Fire Suppression in Radwaste Building

The licensee brought the fire suppression system in scope and identified appropriate aging manage programs.

Open Item 3.01: FSAR Supplement

This standard open item was closed based on two license conditions.

The Subcommittee members, the staff, and SNC discussed how the NRC will verify that license renewal commitments are completed. Mr. Raymond Baker, SNC, explained that the license renewal commitments are captured in a licensee commitment tracking system that is used to write the FSAR supplement. The FSAR supplement is required to be incorporated into the next updated of the FSAR. Mr. John Barton, ACRS, questioned whether the commitment tracking system was maintained to the same requirements as the 10 CFR Part 50 Appendix B corrective action program. Mr. Baker stated that the commitment tracking system was different from the corrective action program, but was maintained to Appendix B requirements. Mr. John Nakoski, NRR, stated that the staff's post-license inspection plan included guidance for verifying completion of license renewal commitments.

Open Item 3.1.1-1: BWR Water Chemistry Guidelines

The applicant will maintain flexibility to modify the water chemistry procedures in response to new or updated industry information.

Dr. Ford questioned how the staff could approve use of revision 2 to the Electric Power Research Institute (EPRI) TR-103515, "BWR Water Chemistry Guidelines," before it had completed its review. Mr. Robin Dyle, SNC, stated that revision 2 provided more implementation guidance than revision 1. He explained that the applicant had provided a description of the differences between the revisions to the staff. Mr. Burton explained that the staff had reviewed and approved two revision 2 requirements, which were different than revision 1 requirements, for use at Hatch.

Open Item 3.1.3-1: Emergency Diesel Generator Fuel Oil Testing

The applicant conducted a one-time inspection of one of four emergency diesel generator (EDG) fuel oil storage tanks. The condition of the fire pump fuel oil storage tanks are assumed to be bounded by the condition of the EDG fuel oil storage tanks.

Mr. Barton, ACRS, pointed out that the one time inspection only inspected the tank's inside surface, asked how the staff could conclude that there was no corrosion in the buried fuel oil tanks based on one inspection, and recommended additional inspections. He raised concerns about corrosion aging due to degradation of the external coating. Mr. Burton replied that there was no operational experience of fuel oil tank leakage. He also noted that licensee procedures require inspection of any components that are excavated in the future. The Subcommittee members, the staff, and SNC discussed the consequences of fuel oil tank leakage and the effect on plant safety, loss of safety functions, and regulatory requirements.

Mr. Burton stated that he would consider revising the SER to clarify the expectations for future tank inspections and for considering future operating experience.

Open Item 3.1.11-1: Stress Corrosion Cracking of High-Strength Bolting

The licensee's procurement data does not identify the yield strength upper limit for high-strength bolts. Plant-specific and industry operating experience indicates that stress corrosion crack is not a problem for these bolts.

The Subcommittee members, the staff, and SNC discussed why the bolts are not subject to cracking, type of lubricant applied to the bolts, and the upper torque limit for the bolts. Mr. Burton stated that he would consider revising the SER to include additional information provided in the applicant's responses to requests for additional information.

Open Item 3.1.13-1: Service Water Systems Inspection Program

The site procedures require that coating personnel perform inspections during any excavation of buried components. The management of aging effects on heat exchangers is performed in accordance with the residual heat removal heat (RHR) exchanger augmented inspection and

testing program, and visual inspections are performed in accordance with the primary service water (PSW) and RHR service water inspection program. The licensee will perform a one-time inspection of the PSW guard pipe at the next refueling outage.

The licensee verified that the inspection of the guard pipe was scheduled for the upcoming outage.

Open Item 3.1.17-1: Reactor Vessel Monitoring Program

A licensing condition requires that the licensee informs the staff as to which surveillance program will be used to inspect the reactor vessel.

Open Item 3.1.18-1: Fire Protection

System flow tests are adequate to manage aging in fire system components. The provisions of the National Fire Protection Act (NFPA) Code 25 will be implemented.

The Subcommittee members, the staff, and SNC discussed the flow test, how it is conducted, and how the results are used to evaluate aging effects on the sprinkler heads. Ms. Tanya Easton, NRR, explained that the Code requires inspecting the fire suppression system after 50 year from the date of installation of the system and not the date of the operating license. Dr. Bonaca suggested that the staff clarify, in the FSAR, when the flow test would be done with respect to the expiration of the operating license. The test is required to be performed three years into the license renewal period.

Dr. Peter Ford questioned what corrosion data was used to establish the required frequency of the tests. Dr. Davis, NRR, explained that the NFPA Code 25 had been developed based on operating experience for fire suppression systems used in commercial industries. Dr. Thomas Kress, ACRS questioned whether the equipment protection criteria used for commercial fire suppression systems was adequate for nuclear power facilities. The staff agreed to respond to this issue at the November 2001 ACRS meeting.

3.1.28-1: Residual Heat Removal System Heat Exchanger Inspection and Testing

The applicant provided addition information concerning inspection methods, frequencies, locations, and acceptance criteria. On the basis of Subcommittee members' questions, the staff agreed to clarify the SER by including additional information from the licensee's response to requests for additional information concerning the safety margin and surveillance frequency for testing of small bore pipes.

Open Item 3.2.3.1.1-1: Loss of Fracture Toughness of CASS Components in Reactor Assembly System

Plant and industry experience has not shown evidence of cracking and indicates that weld cracks will form before cast austenitic stainless steel (CASS) components fail. The Subcommittee members, the staff, and SNC discussed the basis for using cracks in welds as a precursor to failure of CASS components.

Open Item 3.6.3.2-1: Primary Containment

The applicant identified the aging management programs that are credited to manage torus corrosion, and clarified the requirements and criteria for containment leakage. The Subcommittee members and the staff discussed the aging management programs for components above the torus water line and components below the waterline.

Open Item 4.1.3-1(a): Fatigue Analyses

The cumulative usage factor will remain below 1.0 during the renewal term.

Open Items that Were Appealed

Mr. Burton explained the appeals process and the basis for closure of the following items:

- 2.1.3.1-1: Scoping of Seismic II/I Components
- 2.3.3.2-1: Aging Management Review for Active Component Housing
- 3.2.3.2.3-1: Aging Management of Small-Bore Piping
- 3.6.3.1-1: Reactor Building Controlled In-Leakage
- 4.1.3-1(b): Pipe Break Criteria as a Time-Limiting Aging Analysis (TLAA)
- 4.2.3-1: Environmentally-Assisted Fatigue

The Subcommittee members and the staff discussed why this formal appeal system is needed since this process is used for any technical difference between the staff and licensees. Dr. Kress verified that NRC technical reviewers would be able to use the differing professional opinion process if they disagreed with the results of the appeals process.

The Subcommittee members and SNC discussed why the applicant used the appeal process for specific open items. Dr. William Shack, ACRS, questioned why postulated pipe break locations were only based on fatigue cackling. The staff agreed to address the issue at the November 2001 ACRS meeting.

The Subcommittee members and the staff discussed chemistry control for oxygen in the primary coolant. The staff agreed to clarify the discussion of oxygen control contained on page 3-62 of the SER.

Licensing Conditions

Mr. Burton presented the following three licensing conditions:

- include FSAR supplement in next FSAR updated required by 10 CFR 50.71 (e),
- complete all future actions before start of extended period of operation, and
- inform NRC of the surveillance program that will be used to inspect the reactor vessel.

Mr. Burton concluded that the applicant has met the requirement for license renewal as required by 10 CFR 54.29.

SUBCOMMITTEE COMMENTS, CONCERNS, AND RECOMMENDATIONS

Mr. Barton stated that he had no recommendations for items to be addressed in the ACRS letter.

Dr. Kress stated that the license renewal review process was sufficient. He was concerned that the appeals process may be used to override technical reviewers' conclusions.

Dr. Bonaca noted that the BWR Vessel and Internals Project programs and the TLAAs are integrated. He questioned why the appeals process needed to be formalized.

Dr. Ford questioned the justification for using one-time inspections to verify the absence of time related aging degradation, such as, corrosion in buried tanks. He also questioned the assumption that weld cracks will be precursors to CASS component failures.

Dr. Shack stated that the staff SER made the case for approval of the license renewal application.

STAFF AND INDUSTRY COMMITMENTS

The staff agreed to provide addition clarification in the final SER concerning the following:

- staff expectations for the license to conduct future inspections and consider new operating experience related to leakage of buried components,
- licensee's commitments related to stress corrosion cracking of high-strength bolting,
- the timing of fire sprinkler head inspections in relationship to the operating license,
- licensee responses to request for additional information concerning the acceptance criteria and safety margins related to RHR heat exchanger inspections and testing, and
- description of the control of oxygen in the flow accelerated corrosion program's preventive and mitigative actions.

SUBCOMMITTEE DECISIONS

The Subcommittee requested that the staff present an abbreviate version of its presentation regarding the SER to the ACRS on November 8, 2001.

The Subcommittee requested that the staff, during its presentation on November 8, 2001, address the following specific issues:

- requirements for inspecting buried components in relationship to safety functions;
- applicability of the National Fire Protection Act (NFPA) Code 25 to nuclear power plants;
- how the staff verifies that SER commitments are completed;

- why postulated pipe breaks are based only on pipe fatigue analysis;
- number of existing, modified, and new aging management programs;
- treatment of technical issues in the appeals process;
- weld cracks used as a precursor to failure of CASS components,
- why postulated pipe break locations are based on fatigue cackling,
- justification for one-time inspections for time-dependent degradation; and
- update on the status of approval of topical reports associated with license renewal.

FOLLOW-UP ACTIONS

None.

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. Letter dated April 16, 2001, from George E. Apostolakis, Chairman ACRS, to William D. Travers, Executive Director for Operations, NRC, Subject: Interim Letter Related to the License Renewal of Edwin I. Hatch Nuclear Station, Units 1 and 2.
2. US Nuclear Regulatory Commission Safety Evaluation Report Related to the License Renewal of the Edwin I. Hatch Nuclear Plant, Units 1 and 2, issued October 2001.
3. Letter from H.L. Sumner to the U.S. Nuclear Regulatory Commission, "Edwin I. Hatch Nuclear Plant Application for Renewed Operating Licenses," dated February 29, 2000.

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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
EDWIN I. HATCH LICENSE RENEWAL APPLICATION
OCTOBER 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. Safety Evaluation Report: Closure of Open Items	W. Burton, NRR	8:35-10:00 a.m.
- BREAK -		<i>10:30-10:45</i> 10:00-10:15 a.m.
III. Appeal Process	W. Burton, NRR	<i>10:45</i> 10:15 -11:30 a.m.
IV. Discussion	M. Bonaca, ACRS	<i>11:50 a.m.</i> 11:30- 12:00 noon
V. Adjournment	M. Bonaca , ACRS	<i>11:50 a.m.</i> 12:00 noon

NOTE: Presentation time should not exceed 50 percent of the total time allocated for specific item. The remaining 50 percent of the time is reserved for discussion.

Number of copies of the presentation materials to be provided to the ACRS - 25.

The Safety Evaluation may be examined, and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the ADAMS Public Library component on the NRC Web site, <http://www.nrc.gov> (the Public Electronic Reading Room).

4.0 Conclusion

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), the exemption is authorized by law, will not endanger life or property or common defense and security, and is, otherwise, in the public interest. Also, special circumstances are present. Therefore, the Commission hereby grants CP&L an exemption from the requirements of 10 CFR 50, appendix G, for generating the P-T limit curves for BSEP.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will not have a significant effect on the quality of the human environment (66 FR 50458).

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 3rd day of October 2001.

For the Nuclear Regulatory Commission.

John A. Zwolinski,

Director, Division of Licensing Project Management, Office of Nuclear Reactor Regulation.

[FR Doc. 01-25418 Filed 10-9-01; 8:45 am]

BILLING CODE 7590-01-P

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 October 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:

Thursday, October 25, 2001—8:30 a.m. until 12:00 Noon

The Subcommittee will discuss the Safety Evaluation Report for the Southern Nuclear Operating Company, Inc., license renewal application for Hatch Units 1 and 2, and the NRC license renewal appeals process. 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 7:30 a.m. and 4:15 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: October 2, 2001.

Sher Bahadur,

Associate Director for Technical Support ACRS/ACNW.

[FR Doc. 01-25417 Filed 10-9-01; 8:45 am]

BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Sunshine Act Meeting

AGENCY HOLDING THE MEETING: Nuclear Regulatory Commission.

DATES: Weeks of October 8, 15, 22, 29, November 5, 12, 2001.

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

STATUS: Public and Closed.

MATTERS TO BE CONSIDERED:

Week of October 8, 2001

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).

Week of October 22, 2001—Tentative

There are no meetings scheduled for the week of October 22, 2001.

Week of October 29, 2001—Tentative

There are no meetings scheduled for the week of October 29, 2001.

Week of November 5, 2001—Tentative

There are no meetings scheduled for the week of November 5, 2001.

Week of November 12, 2001—Tentative

Thursday, November 15, 2001

2:00 p.m.—Discussion of

Intragovernmental Issues (Closed-Ex. 1).

*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

Additional Information

By a vote of 4-0 on September 26 and 27, the Commission determined pursuant to U.S.C. 552b(e) and § 9.107(a) of the Commission's rules that "Affirmation of Final Rulemaking to Amend 10 CFR Part 55, 'Operators' Licenses,' Regarding Operator License Eligibility and the Use of Simulator Facilities in Operator Licensing; and, Revision 3 of Regulatory Guide 1.149, 'Nuclear Power Plant Simulation Facilities for Use in Operator Training and License Examinations'" be held on September 28, and on less than one week's notice to the public

By a vote of 4-0 on October 3, the Commission determined pursuant to U.S.C. 552b(e) and § 9.107(a) of the Commission's rules that "Affirmation of Duke Energy Corporation License Renewal Application for Catawba, Units 1 and 2, and McGuire, Units 1 and 2; Licensing Board Referral and Scheduling Order" be held on October 4, and on less than one week's notice to the public.

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

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
SUBCOMMITTEE MEETING ON PLANT LICENSE RENEWAL

OCTOBER 25, 2001

Today's Date

NRC STAFF PLEASE SIGN IN FOR ACRS MEETING

PLEASE PRINT

NAME

AFFILIATION

CE CARPENTIER	NRC: NRR: DE: EMCB
Cheng-Yang Li	NRC: NRR/DSSA/SPLB
Chris Gemies	NRR/RLSB
John Nakoski	NRR/RLSB
SHOJZ TAKEYAMA	NRR/RLSB
Raj Anulack	NRR/RLSB
BARRY ELLIOT	NR NRR/EMCB
William Koo	NRR/EMCB
Jim DAVIS	NRR/EMCB
Kris PARCZEWSKI	NRR/DE/EMCB
ANDREW KUGLER	NRR/DRIP/RGEB
J. Rajan	NRR/DE/EMEB
Tanya Eaton	NRR/DSSA/SPLB
Hans Asher	NRR/DE/EMEB
TAMARA Bloomer	NRR/DE/EMCB
Juan Peralta	NRR/DIPH
Yueh-Li c. Li	NRR/DE/EMEB
J. H. Raval	NRR/SPLB/DSSA
S. K. Mittm	NRR/DRIP/RLSB
HAROLD WALKER	NRR/SPLB/DSSA



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D.C. 20555-0001
October 30, 2001

MEMORANDUM TO: Dr. Mario Bonaca, Chairman
Plant License Renewal Subcommittee
Noel Dudley
FROM: 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 HATCH UNITS 1 AND 2,
OCTOBER 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: P. Ford
T. Kress
W. Shack
J. Barton

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

RE 120

Initial draft: 3/31/2000
g:\DUDLEY\Official Record Folders

CONTENTS OF OFFICIAL RECORD FOLDERS FOR ACRS SUBCOMMITTEES

The Federal Advisory Committee Act requires retention of certain documents related to every advisory committee meeting. The ACRS has applied this requirement to all ACRS subcommittee meetings. The cognizant staff engineer is responsible for assembling an official record folder for each subcommittee meeting. The folder is retained on file by the Operations Support Branch (Michele Kelton). The following is a list of the documents that should be included in the official record folder.

- ~~X~~ Original copy of the certified minutes,
- ~~X~~ Signed Subcommittee Chairman certification sheet,
- ~~X~~ Memorandum forwarding the certified minutes to the members,
- ~~X~~ Memorandum forwarding the working draft of the minutes to the members,
- ~~X~~ Marked-up agenda or proposed schedule,
- ~~X~~ List of attendees
- ~~X~~ Federal Register Notice, and
- ~~X~~ Slides presented at the subcommittee meeting.

✓ A copy of the certified minutes should be provided to the ACRS secretary.

Three copies of the certified minutes and an electronic copy of the certified minutes should be provided to the Operations Support Branch (Ethel Barnard) for further distribution.

ML 01 303 0043

OCTOBER 25, 2001

PLANT LICENSE RENEWAL SUBCOMMITTEE - HATCH

ACRS LICENSE RENEWAL SUBCOMMITTEE
PLANT HATCH LICENSE RENEWAL APPLICATION
FINAL SAFETY EVALUATION REPORT

OCTOBER 25, 2001

WILLIAM BURTON
PROJECT MANAGER
NRR

OVERVIEW

BACKGROUND

APPLICATION SUBMITTED BY LETTER DATED FEBRUARY 29, 2000

BOILING WATER REACTOR. 2 UNITS

PLANT LOCATED ON ALTAMAHA RIVER IN APPLING COUNTY, GEORGIA.
APPROXIMATELY 11 MILES NORTH OF BAXLEY, GEORGIA

UNIT 1: CURRENT LICENSE EXPIRES AUGUST 6, 2014. REQUESTS
RENEWAL THROUGH AUGUST 6, 2034

UNIT 2: CURRENT LICENSE EXPIRES JUNE 13, 2018. REQUESTS
RENEWAL THROUGH JUNE 13, 2038

INITIAL SER ISSUED FEBRUARY 7, 2001

FINAL SER ISSUED OCTOBER 5, 2001

Hatch Nuclear Plant License Renewal Application Review Schedule

Milestone	Target Date	Actual Date
Receive License Renewal Application	3/1/00	3/1/00
Notice Application Tendered	3/15/00	3/10/00
Publish Acceptance Review & Docket Application/Notice of Opportunity for Hearing	3/30/00	4/3/00
Notice of Intent/Notice of Environmental Scoping Meeting	3/30/00	4/12/00
Deadline for Filing Hearing Requests and Petitions for Intervention	5/1/00	5/3/00
Environmental Scoping Meeting	5/15/00	5/10/00
EIS Scoping Period Ends	6/9/00	6/9/00
Staff Complete Environmental RAIs	7/17/00	6/23/00
Staff Complete Technical RAIs	7/28/00	7/28/00
Applicant Responds to Environmental RAIs	9/18/00	8/31/00
Applicant Responds to Technical RAIs	10/11/00	10/10/00
Complete Scoping Inspection	10/31/00	9/15/00
Staff Issue Draft EIS for Comment	1/5/01	11/3/00
Staff Issue SER & Identify Open Items	2/8/01	2/7/01
Public Meeting to Discuss DEIS	2/12/01	12/12/00
Complete Aging Management Review Inspection	3/16/01	3/16/01
End of DEIS Comment Period	3/28/01	1/24/01
ACRS Subcommittee Meeting	3/28/01	3/28/01
ACRS Full Committee Meeting	4/5/01	4/5/01
Applicant Complete Responses to SER Open Items	6/8/01	6/5/01
Staff Issue Final EIS	7/20/01	5/31/01
Complete Optional Final Inspection	9/7/01	8/29/01
Staff Issue SSER	10/5/01	10/5/01
Regional Administrator's Letter	10/23/01	10/18/01
ACRS Subcommittee Meeting	10/25/01	10/25/01
ACRS Full Committee Meeting	11/8/01	
ACRS Letter	11/13/01	
Issue SER as NUREG	11/19/01	
Commission Paper w/Staff Recommendation (w/o hearing)	12/10/01	
Commission Meeting (w/o hearing)	2/27/02	
Commission Decision on Renewed License (w/o hearing)	3/11/02	
Renewed License Issued (if approved) (w/o hearing)	3/21/02	

February 8, 2001

Milestone schedule revised from a 30-month review schedule to a 25-month review schedule to reflect the completion of the interval for filing Hearing Requests and Petitions for Intervention without receiving either a hearing request or petition for intervention.

OPEN ITEMS

18 OPEN ITEMS IDENTIFIED IN SER

12 WERE RESOLVED WITHOUT APPEAL

6 WERE RESOLVED WITH APPEAL

OPEN ITEMS RESOLVED WITHOUT APPEAL

- 2.3.3.2-1 SCREENING OF SKID-MOUNTED COMPONENTS**
- 2.3.4.2-2 FIRE SUPPRESSION IN RADWASTE BUILDING**
- 3.0-1 FSAR SUPPLEMENT**
- 3.1.1-1 BWR WATER CHEMISTRY GUIDELINES**
- 3.1.3-1 EDG FUEL OIL TESTING**
- 3.1.11-1 STRESS CORROSION CRACKING OF HIGH-STRENGTH
BOLTING**
- 3.1.13-1 PSW AND RHRSW INSPECTION PROGRAM**
- 3.1.17-1 REACTOR VESSEL MONITORING PROGRAM**

OPEN ITEMS RESOLVED WITHOUT APPEAL
CON'T

- 3.1.18-1 FIRE PROTECTION**

- 3.1.28-1 RHR HEAT EXCHANGER INSPECTION AND TESTING**

- 3.2.3.1.1-1 LOSS OF FRACTURE TOUGHNESS OF CAST AUSTENITIC
STAINLESS STEEL COMPONENTS IN REACTOR
ASSEMBLY SYSTEM**

- 3.6.3.2-1 PRIMARY CONTAINMENT**

- 4.1.3-1(a) FATIGUE ANALYSES**

OPEN ITEM 2.3.3.2-1
SCREENING OF SKID-MOUNTED COMPONENTS

ISSUE: SKID-MOUNTED COMPONENTS SHOULD BE SUBJECT TO AN AMR

HYDROGEN RECOMBINERS AND EDGs

RESOLUTION: ADDITIONAL COMPONENTS WERE MADE SUBJECT TO AN AMR

RECOMBINERS - BLOWER CASING, PIPING, REACTION CHAMBER, WATER SEPARATOR, ETC.

EDGs - JACKET WATER COOLING, LUBE OIL, SCAVENGING AIR

OPEN ITEM 2.3.4.2-1
FIRE SUPPRESSION IN RADWASTE BUILDING

ISSUE: PER THE FIRE HAZARDS ANALYSIS, FIRE SUPPRESSION SYSTEM IN RADWASTE BUILDING PROTECTS CHARCOAL FILTERS AND COMBUSTIBLES IN DRY WASTE STORAGE AREA. SYSTEM SHOULD BE IN SCOPE AND SUBJECT TO AN AMR

RESOLUTION: SYSTEM WAS BROUGHT IN SCOPE AND MADE SUBJECT TO AN AMR

OPEN ITEM 3.0-1
FSAR SUPPLEMENT

**ISSUE: FSAR SUPPLEMENT SHOULD BE INCLUDED IN THE NEXT UFSAR UPDATE
FOLLOWING ISSUANCE OF RENEWED LICENSE**

STANDARD OPEN ITEM AND LICENSE CONDITION

**ADDITIONAL STANDARD LICENSE CONDITION STATES THAT ALL FUTURE
INSPECTION ACTIVITIES IDENTIFIED IN FSAR SUPPLEMENT SHOULD BE
PERFORMED BEFORE END OF CURRENT TERM**

OPEN ITEM 3.1.1-1
BWR WATER CHEMISTRY GUIDELINES

ISSUE: WATER CHEMISTRY PROGRAM SHOULD USE REVISION 1 OF EPRI WATER CHEMISTRY GUIDELINES

APPLICANT COMMITTED TO FOLLOWING GUIDELINES OF EPRI TR-103515, "BWR WATER CHEMISTRY GUIDELINES," AND NOTED THAT GUIDELINE IS BEING REVISED TO REVISION 2

STAFF NOTED THAT REVISION 2 HAS NOT BEEN REVIEWED BY STAFF, SO APPLICANT SHOULD USE REVISION 1

RESOLUTION: STAFF DETERMINED THAT APPLICANT SHOULD MAINTAIN FLEXIBILITY TO MODIFY PROGRAM TO REFLECT INDUSTRY OPERATING EXPERIENCE

OPEN ITEM 3.1.3-1
EDG FUEL OIL TESTING

ISSUE: APPLICANT SHOULD PERFORM ONE-TIME INSPECTION OF FUEL OIL STORAGE TANK (FOST) BOTTOMS

RESOLUTION: 1 OF 4 FOSTs FOR THE EDGs WAS RECENTLY INSPECTED (VISUAL AND ULTRASONIC). NO SIGNIFICANT WALL THINNING WAS FOUND. OTHER 3 FOSTs IN SAME ENVIRONMENT FOR EQUAL TIME - NO DEGRADATION EXPECTED

CONDITION OF FIRE PUMP FOSTs BOUNDED BY EDG FOSTs

OPEN ITEM 3.1.11-1
STRESS CORROSION CRACKING OF HIGH-STRENGTH BOLTING

ISSUE: PROVIDE INFORMATION TO SHOW BOLT YIELD STRENGTH IS BELOW 150 KSI

**YIELD STRENGTH BELOW 150 KSI PRECLUDES STRESS CORROSION CRACKING
(SCC) IN HIGH-STRENGTH BOLTING**

**RESOLUTION: PROCUREMENT DATA DOES NOT IDENTIFY UPPER LIMIT TO YIELD
STRENGTH. HOWEVER, PLANT-SPECIFIC AND INDUSTRY
OPERATING EXPERIENCE HAVE NOT SHOWN SCC TO BE A
PROBLEM FOR THE BOLTS**

OPEN ITEM 3.1.13-1
PSW AND RHRWS INSPECTION PROGRAM

ISSUE 1: BURIED COMPONENTS

**LRA CREDITED AMP FOR MANAGING AGING EFFECTS OF BURIED COMPONENTS
BUT NOT DISCUSSED IN AMP**

RESOLUTION: **APPLICANT CLARIFIED THAT PROTECTIVE COATINGS AMP
DISCUSSES CLEANING, PRIMING, COATING, AND WRAPPING OF
COMPONENTS. SITE PROCEDURE INVOKES INSPECTIONS BY
COATINGS PERSONNEL DURING EXCAVATION ACTIVITIES. LRA
REVISED. SITE PROCEDURES REVIEWED DURING AMP
INSPECTION.**

OPEN ITEM 3.1.13-1
PSW AND RHR SW INSPECTION PROGRAM
CON'T

ISSUE 2: PROGRAM SCOPE

**STAFF NEEDED CLARIFICATION REGARDING RHR HEAT EXCHANGER
COMPONENT INSPECTIONS**

**RESOLUTION: RHR HEAT EXCHANGER AUGMENTED INSPECTION AND TESTING
AMP IS PRIMARY AGING MANAGEMENT PROGRAM. THE PSW AND
RHR SW PROGRAM PROVIDES VISUAL INSPECTION OF SURFACES
OF CHANNEL AND SHELL**

OPEN ITEM 3.1.13-1
PSW AND RHRSW INSPECTION PROGRA
CON'T

ISSUE 3: PSW GUARD PIPE

SECTION OF PSW PIPING IN EDG BUILDING SURROUNDED BY GUARD PIPE (NOT IN SCOPE). GUARD PIPE WELDED TO PSW PIPE EXTERIOR. CANNOT ASSESS CONDITION OF EXTERNAL SURFACE OF PSW PIPING DUE TO GUARD PIPE

RESOLUTION: APPLICANT WILL PERFORM ONE-TIME INSPECTION DURING NEXT OUTAGE. NO ADVERSE AGING EFFECTS ANTICIPATED

OPEN ITEM 3.1.17-1
REACTOR VESSEL MONITORING PROGRAM

ISSUE: SURVEILLANCE MATERIAL TESTING PROGRAM SHOULD MEET REQUIREMENTS OF 10 CFR PART 54 AND AGING MANAGEMENT PROGRAM ATTRIBUTES

RESOLUTION: APPLICANT COMMITTED TO IMPLEMENTING THE ACTIONS IDENTIFIED IN BWRVIP-78, "BWR INTEGRATED SURVEILLANCE PROGRAM," OR DEVELOP AND IMPLEMENT A PLANT-SPECIFIC SURVEILLANCE MATERIALS TESTING PROGRAM THAT INCLUDES THESE ACTIONS

RENEWED LICENSE TO INCLUDE LICENSE CONDITION REQUIRING APPLICANT TO INFORM NRC WHICH OPTION WILL BE IMPLEMENTED

OPEN ITEM 3.1.18-1
FIRE PROTECTION

ISSUE 1: ADEQUACY OF SYSTEM FLOW TESTS TO MANAGE AGING

RESOLUTION: DETERMINED THAT SYSTEM FLOW TESTS, ALONG WITH ACTIONS IDENTIFIED IN FIRE PROTECTION ACTIVITIES AMP, ARE ADEQUATE TO MANAGE AGING IN FIRE SYSTEM COMPONENTS

ISSUE 2: INSPECTION FREQUENCY OF FIRE SYSTEM COMPONENTS

RESOLUTION: PROVISIONS OF NFPA-25 WILL BE IMPLEMENTED: CLOSED-HEAD SPRINKLERS WILL BE INSPECTED AFTER 50 YEARS OF SERVICE AND AT 10-YEAR INTERVALS THEREAFTER

OPEN ITEM 3.1.28-1
RHR HEAT EXCHANGER INSPECTION AND TESTING

ISSUE: VIBRATION-INDUCED CRACKING IN RHR HEAT EXCHANGERS

RESOLUTION: APPLICANT PROVIDED ADDITIONAL INFORMATION ON INSPECTION METHODS, FREQUENCIES, LOCATIONS, AND ACCEPTANCE CRITERIA

AUGMENTED INSPECTION AND TESTING AMP INCLUDES ACTIVITIES THAT WILL DETECT TUBE DAMAGE OR THROUGH-WALL LEAKAGE THAT COULD RESULT FROM VIBRATION

OPEN ITEM 3.2.3.1.1-1

CAST AUSTENITIC STAINLESS STEEL (CASS) COMPONENTS IN REACTOR ASSEMBLY SYSTEM

ISSUE: CASS COMPONENTS IN REACTOR ASSEMBLY SYSTEM MAY EXPERIENCE LOSS OF FRACTURE TOUGHNESS DUE TO THERMAL AND NEUTRON EMBRITTLEMENT. LOSS OF FRACTURE TOUGHNESS IS AGING EFFECTS NEEDING MANAGEMENT IF CRACKS ARE IN CASS COMPONENT. APPLICANT SHOULD PERFORM ONE-TIME INSPECTION TO CHECK FOR CRACKS

RESOLUTION: ONE-TIME INSPECTION NOT WARRANTED

- (a) PLANT AND INDUSTRY EXPERIENCE HAS NOT SHOWN EVIDENCE OF CRACKING IN CASS JET PUMP ASSEMBLIES OR FUEL SUPPORTS.**
- (b) ASSEMBLY WELDS INSPECTED PER BWRVIP-41. EXPERIENCE SHOWS WELDS WILL CRACK BEFORE CASS COMPONENTS.**

OPEN ITEM 3.6.3.2-1
PRIMARY CONTAINMENT

ISSUE 1: AMP TO MANAGE TORUS CORROSION

**RESOLUTION: APPLICANT CLARIFIED WHICH AMPS ARE CREDITED TO MANAGE
TORUS CORROSION**

**ISSUE 2: AGING MANAGEMENT OF GEARS, LATCHES, AND LINKAGES FOR
PERSONNEL HATCHES AND PENETRATIONS**

**RESOLUTION: PERFORMANCE-BASED REQUIREMENTS AND CRITERIA TO ENSURE
PRIMARY CONTAINMENT AND PENETRATION LEAKAGE DOES NOT
EXCEED RATES IDENTIFIED IN TSs. CONSISTENT WITH GALL**

OPEN ITEM 4.1.3-1(a)
FATIGUE ANALYSES

ISSUE: HOW WAS FATIGUE ANALYSIS FOR VESSEL INTERNALS FOUND ACCEPTABLE FOR 60 YEARS? IDENTIFY OTHER RCPB COMPONENTS SUBJECT TO FATIGUE ANALYSIS AND EXPLAIN HOW ANALYSES WERE ACCEPTABLE FOR 60 YEARS

RESOLUTION: FATIGUE ANALYSIS OF INTERNALS PROJECTS THAT CUMULATIVE USAGE FACTOR WILL REMAIN BELOW 1.0 DURING RENEWAL TERM. MEETS 10 CFR 54.21(c)(ii) REQUIREMENT

APPLICANT IDENTIFIED NO OTHER RCPB COMPONENTS SUBJECT TO FATIGUE ANALYSIS

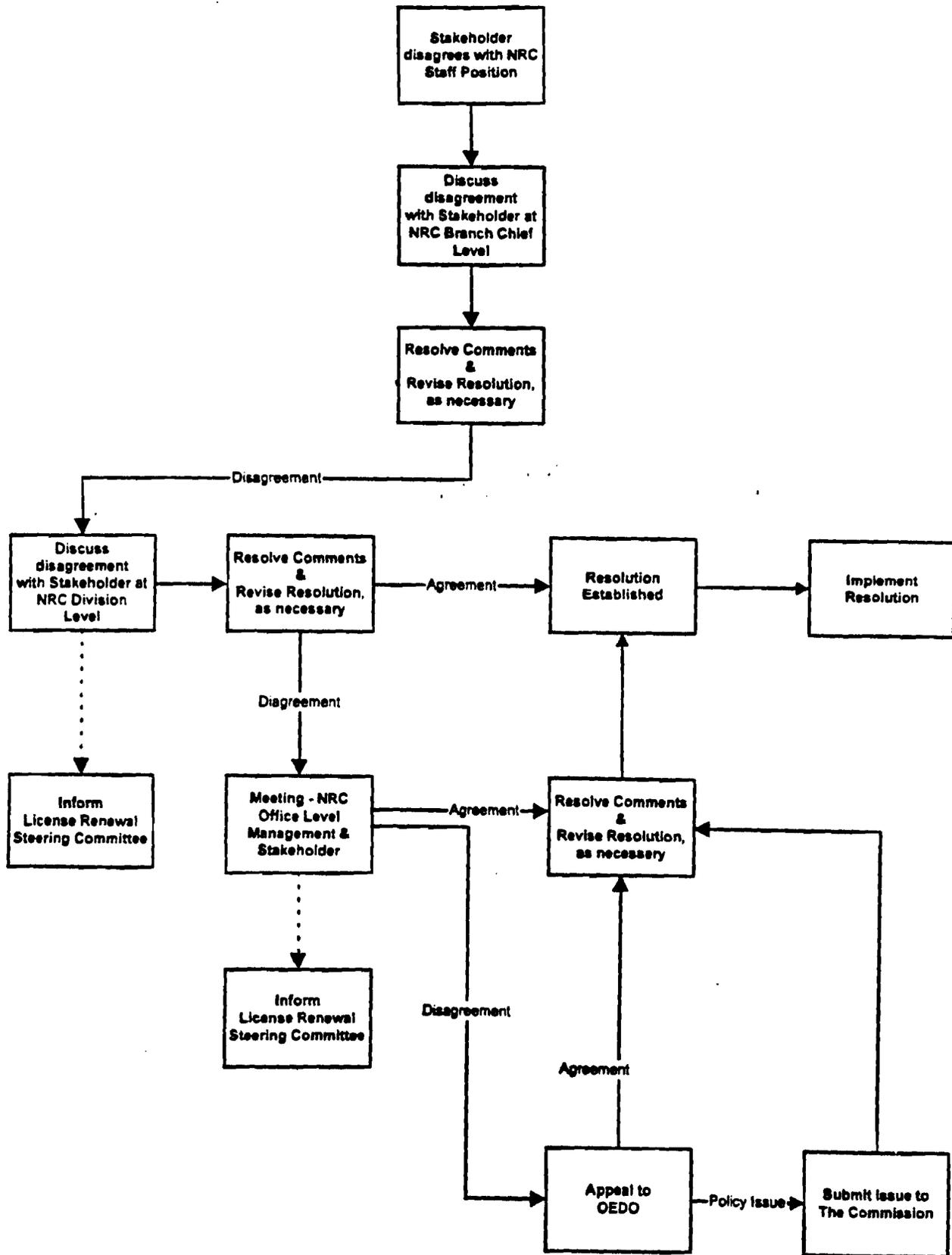
OPEN ITEMS THAT WERE APPEALED

FIRST APPEAL MEETING: MARCH 29, 2001. BRANCH LEVEL

SECOND APPEAL MEETING: JUNE 6, 2001. DIVISION LEVEL

- 2.1.3.1-1 SEISMIC II/I**
- 2.3.3.2-2 AMR FOR ACTIVE COMPONENT HOUSINGS**
- 3.2.3.2.3-1 AGING MANAGEMENT OF SMALL-BORE PIPING**
- 3.6.3.1-1 REACTOR BUILDING CONTROLLED IN-LEAKAGE**
- 4.1.3-1(b) PIPE BREAK CRITERIA**
- 4.2.3-1 ENVIRONMENTALLY-ASSISTED FATIGUE**

LICENSE RENEWAL APPEALS PROCESS



OPEN ITEM 2.1.3.1-1
SCOPING OF SEISMIC II/I COMPONENTS

ISSUE: STRUCTURES, SYSTEMS, AND COMPONENTS IDENTIFIED AS SEISMIC II/I SHOULD BE IN SCOPE AND SUBJECT TO AN AMR

RESOLUTION: APPLICANT BROUGHT ADDITIONAL COMPONENTS IN SCOPE AND IDENTIFIED APPROPRIATE AMPs TO MANAGE AGING. RESOLUTION BEING DEVELOPED INTO STAFF POSITION.

OPEN ITEM 2.3.3.2-2
AMR FOR ACTIVE COMPONENT HOUSINGS

ISSUE: HOUSINGS OF ACTIVE COMPONENTS SHOULD BE SUBJECT TO AMR

**STANDBY GAS TREATMENT SYSTEM
CONTROL BUILDING HVAC
OUTSIDE STRUCTURES HVAC
REACTOR BUILDING HVAC**

**INCLUDED FAN AND DAMPER HOUSINGS, AND HEATING AND COOLING
COILS**

RESOLUTION: APPLICANT SUBJECTED COMPONENT HOUSINGS TO AMR

OPEN ITEM 3.2.3.2.3-1
AGING MANAGEMENT OF SMALL-BORE PIPING

ISSUE: SMALL-BORE PIPING COULD BE SUBJECT TO CRACKING DUE TO HIGH-CYCLE THERMAL FATIGUE FROM THERMAL STRATIFICATION OR TURBULENT PENETRATION, OR FROM IGSCC

RESOLUTION: APPLICANT CLARIFIED THAT SMALL-BORE PIPING IS IN THE SCOPE OF THE TREATED WATER SYSTEMS PIPING INSPECTION (TWSPI) PROGRAM.

OPEN ITEM 3.6.3.1-1
REACTOR BUILDING CONTROLLED IN-LEAKAGE.

ISSUE: APPLICANT SHOULD HAVE AN AMP THAT MAINTAINS REACTOR BUILDING IN-LEAKAGE LIMITS DURING RENEWAL PERIOD

RESOLUTION: APPLICANT REVISED STRUCTURAL MONITORING PROGRAM TO INCLUDE SGTS DRAWDOWN TEST

OPEN ITEM 4.1.3-1(b)
PIPE BREAK CRITERIA AS A TLAA

ISSUE: POSTULATED PIPE BREAK LOCATIONS MEET TLAA CRITERIA AND SHOULD BE EVALUATED AS A TLAA

RESOLUTION: APPLICANT REVISED LRA TO ADDRESS POSTULATED PIPE BREAKS AS A TLAA. BOUNDING LOCATIONS WILL BE MONITORED USING THE COMPONENT CYCLIC OR TRANSIENT LIMIT PROGRAM (CCTLTP) AMP

OPEN ITEM 4.2.3-1
ENVIRONMENTALLY-ASSISTED FATIGUE

**ISSUE: APPLICANT SHOULD ASSESS LOCATIONS IDENTIFIED IN NUREG/CR-6260
CONSIDERING APPLICABLE ENVIRONMENTAL FATIGUE CORRELATIONS IN
NUREG/CR-6583 AND NUREG/CR-5704**

**RESOLUTION: APPLICANT COMMITTED TO EVALUATING THE LOCATIONS USING
THE CCTLP AMP**

LICENSE CONDITIONS

- 1. INCLUDE FSAR SUPPLEMENT IN NEXT FSAR UPDATED REQUIRED BY 50.71(e)**
- 2. ALL FUTURE ACTIONS SHOULD BE COMPLETED BEFORE START OF EXTENDED PERIOD OF OPERATION**
- 3. INFORM NRC OF USE OF EITHER REACTOR VESSEL INTEGRATED SURVEILLANCE PROGRAM OR PLANT-SPECIFIC SURVEILLANCE MATERIALS TESTING PROGRAM**

STAFF CONCLUSION

THE APPLICANT HAS MET THE REQUIREMENTS FOR LICENSE RENEWAL, AS REQUIRED BY 10 CFR 54.29:

- ACTIONS HAVE BEEN IDENTIFIED AND HAVE BEEN OR WILL BE TAKEN SUCH THAT THERE IS REASONABLE ASSURANCE THAT ACTIVITIES WILL CONTINUE TO BE CONDUCTED IN THE RENEWAL TERM IN ACCORDANCE WITH THE CURRENT LICENSING BASIS**
- THE APPLICABLE REQUIREMENTS OF 10 CFR PART 51 HAVE BEEN SATISFIED**
- MATTERS RAISED UNDER 10 CFR 2.758 HAVE BEEN ADDRESSED**